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Understanding the Nature and Role of Spirituality in Relation to Medication Adherence:

A Proposed Conceptual Model

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Abstract

Racial disparities in hypertension prevalence and its attendant complications are well documented. Spirituality is an important component of African American beliefs and a small body of literature suggests that spirituality influences hypertension management in African Americans. This article describes a conceptual model of spirituality that may be useful for developing interventions for increasing medication adherence and decreasing blood pressure in African Americans diagnosed with hypertension.

Keywords

adherence; African Americans; disparities; hypertension; spirituality

Hypertension is a severe public health problem in the United States and is the most common chronic disease in the African American population in the United States.¹ The age-adjusted prevalence of hypertension in African Americans is 41.4% compared with 28.1% for Whites.² African Americans develop hypertension at a younger age and have greater rates of uncontrolled hypertension than Caucasian Americans, resulting in a 1.8 times greater rate of stroke, 1.5 times greater rate of heart disease death, and a 4.2 times greater rate of end-stage kidney disease.³ Thus, it is not surprising that hypertension is the single most common explanation for mortality disparities between African Americans and Whites.⁴ If the Healthy People 2010 goals are to be achieved, this racial disparity in cardiovascular disease outcomes must be addressed.⁵

Repeatedly, research studies have identified that adherence to antihypertensive medication regimens reduces both morbidity and mortality for persons diagnosed with hypertension. The epidemic of poor medication adherence, particularly among African Americans, may help explain the racial disparities in blood pressure control between African Americans and Whites with studies documenting lower medication adherence in hypertensive African

Americans.⁶⁻⁹ As such, addressing the issue of medication adherence in hypertensive African Americans is an important step toward achieving the Healthy People 2010 objective of eliminating the health disparities associated with hypertension-related outcomes. More than 50 separate interventions have been studied to identify methods to increase medication adherence with the ultimate goal of achieving higher rates of blood pressure control.¹⁰ Despite the work that has been conducted to date, adherence to antihypertensive medications is not well understood and no intervention to improve adherence to antihypertensive medication has emerged as consistently superior to others.

Evidence from systematic reviews of medication adherence research suggests that personal beliefs about hypertension and antihypertensive medications influence how African Americans manage the disease and adhere to medication recommendations.⁸⁻¹⁴ Spirituality has been identified as an important personal belief in the African American community.¹⁵⁻¹⁹ In this article, we describe an innovative conceptual model of spirituality that may be useful for increasing medication adherence and decreasing blood pressure in African Americans who are diagnosed with hypertension.

BARRIERS TO MEDICATION ADHERENCE IN THE AFRICAN AMERICAN COMMUNITY

Generally, African Americans are able to articulate the benefits associated with medication adherence such as blood pressure control. However, for many African Americans who are diagnosed with hypertension, barriers to medication adherence may be rooted within their beliefs and attitudes toward healthcare. Key factors emerging from the literature concerning African American barriers to medication adherence can be summarized in the following points. African Americans may

- believe that antihypertensive therapy is unnecessary because it does not cure hypertension;
- mistrust and perceive racial prejudice in healthcare providers;
- believe that antihypertensive therapy is experimental;
- fear the adverse effects of antihypertensive therapy; and
- believe that they have limited personal control as a result of stress associated with chronic illness, economic burden, and other lifestyle factors.^{8,9,11}

To improve adherence among African Americans, it is necessary for nurses to take into account these attitudes and beliefs if they are to provide culture-specific interventions within an African American ideological framework. Spirituality has a long-standing history of helping African Americans overcome barriers. In the next section of this article, we explore the historical context of spirituality for the African American community to provide insight as to why spirituality may be so important for this community and how it may be useful for negotiating commonly identified barriers to medication adherence.

THE IMPORTANCE OF SPIRITUALITY IN THE AFRICAN AMERICAN COMMUNITY

A historical context

The spiritual traditions of African Americans emerged from a history of forced migration and enslavement followed by systemic discrimination and victimization.²⁰ In 1619, the first Africans arrived to North America, bringing with them a variety of spiritual and religious practices. These practices provided both solace and hope in the midst of slavery and oppression.²¹ Spirituality was vital to survival during slavery,²² and enslaved African Americans were able to transcend and transform their experiences through their spirituality, which provided hope in the form of personal and community relationships.²³ Unfortunately, oppression continued well after slavery was abolished and African Americans continued to face racism and discrimination well after the Emancipation Proclamation of 1863 and were kept subordinated and in menial roles by legal methods.²¹ These historical events of slavery and discrimination have had continuing effects on African Americans today, because oppression based on racial and ethnic category is a lived reality for many African Americans and is linked to ongoing health disparities.^{24,25}

Defining spirituality in the African American community

Conceptual exploration of African American spirituality has revealed 3 cultural dimensions that influence their health-related beliefs, practices, and outcomes.^{17–19,26,27} These 3 dimensions of African American spirituality include: (a) faith in a transcendent force; (b) personal relationships with God, others, and self; and (c) transformation of and consolation from adversity.^{15,16,18,19,28,29}

The meaning of faith in a transcendent force in African American spirituality—

Faith in a transcendent force is 1 prominent dimension of African American spirituality.^{18,19,22,26,28,30} It may be defined as a “belief, trust, and reliance on God.”^(p61)¹⁹ In general, African Americans have articulated their faith as a divinely inspired guidance.¹⁹ One of the distinctions identified between African American spirituality and religion is the assertion that religion tends to be adherence to predefined beliefs and rituals of organized religions, which can be highly prescribed.¹⁸ On the other hand, spirituality is often described as a phenomenon that allows one to engage in one’s faith in a freer much less formal manner.

The meaning of personal relationships with God, others, and self in African American spirituality—

Personal relationships with God, others, and self may be defined as a feeling of connection, intimacy, and fellowship to God and the inner self as well as interconnectedness with others.^{18,19,28,29} Prior research examining African American spirituality and health suggests that the result of this connection with God, others, and self leads to increased *social support* defined as the perceived availability of components of support from personal relationships. According to the literature, social support acts to promote health by (a) preventing damage to a person’s self-concept, (b) preventing alteration of active coping efforts, (c) redirecting problem-solving strategies, (d) providing

concrete services and tangible aid, and (e) preventing exposure to stressors in the environment.^{28,31,32}

The meaning of transformation and consolation in African American

spirituality—*Transformation* and *consolation* refer to expressions of empowerment that are used to achieve liberation from oppressive forces.^{18,19,28} Transformation and consolation resources include inner strength, protection, and active coping for overcoming barriers to adherence and health-promotion practices.^{18,19,26,29} Scholars suggest that transformation and consolation are exceptionally strong in the African American community as a result of their long history of oppression and mistreatment and that some African Americans may view illness as yet another struggle to overcome.^{19,33}

Although these 3 dimensions may appear similar to White conceptualizations of spirituality, the historical context for spiritual development is distinct, being grounded in a history of slavery and oppression. These dimensions influence health-related beliefs and behaviors among African Americans and make up the central tenets of the proposed model of spirituality and blood pressure control in African Americans.^{18,19,26,28,32,34,35}

Research supporting the role of African American spirituality in health-promoting behaviors

A growing body of research identifies spirituality as a significant protective and mediating factor in the prevention of and coping with health problems in the African American community.^{18,19,27,28} In this section, we describe each dimension of African American spirituality and their roles in health promotion.

THE ROLE OF FAITH IN A TRANSCENDENT FORCE IN HEALTH

The manner in which African American faith as a transcendent force facilitates guidance and decision making for health is well documented.^{18,36} Studies have identified hypertension management,³⁴ health-promotion activities,^{28,30} and treatment choices for HIV/AIDS as areas in which African Americans use faith-based thinking to influence self-care.³⁷ African American individuals rely on their faith that a transcendent force (usually God) will provide direction and guidance in one form or another for making choices about health-promotion activities and treatment of illnesses. Spiritual activities such as prayer, meditation, fasting, and reading spiritual materials have been noted to strengthen African American faith and assist with decision making in health-related practices.³⁸ For example, in a qualitative study examining health-promoting behaviors in 26 African American women, spirituality was a salient influence on the women's decision making and reflected in statements such as, "I asked God to direct my diet" and "I asked God to guide my eating."^(p87)³⁰ Furthermore, in an exploratory study examining the influence of spirituality on health-related behavior and cancer screening practices among 471 African American church congregation members, researchers found that the congregation members relied heavily on their faith in a transcendent force to make decisions regarding dietary behaviors.³⁹ The majority of the sample (83%) in this study considered themselves to be very spiritual and most (76%) used collaborative problem solving, in which decisions were made as a result of an active personal exchange with God.

THE ROLE OF PERSONAL RELATIONSHIPS WITH GOD, OTHERS, AND SELF IN HEALTH

The literature documents that African Americans' relationship with God may be utilized as a source of social support in managing illnesses.^{40–42} However, this does not mean that individuals relinquish responsibility in managing their health and may view the physician as someone through whom God administers healing.⁴⁰ In a descriptive study assessing the cultural relevance of an educational program for 74 urban African Americans with diabetes, spirituality was identified as a source of support for the participants.⁴³ Indeed, there are some African Americans who rely solely on God for healing purposes and turn away from healthcare providers altogether.⁴⁰ However, studies indicate that low income, less educated African Americans who are members of a more fundamental Christian faith are more likely to have increased distrust in the healthcare delivery system and may be more likely to rely solely on God for healing purposes.⁴⁴

One of the most commonly identified spiritual sources of social support documented in the literature is the use of the African American church to promote health.^{32,35,45–51} An example of this use is documented in a randomized trial testing the impact of a dietary intervention delivered by members of African American churches.⁴⁸ Participants in the intervention group reported significantly greater consumption of fruit and vegetable servings than those in the comparison group. Another study was conducted to examine the impact of an education and support intervention provided by African American churches.³² Results of this study indicated that a sample of 97 hypertensive African Americans had a significant decrease in systolic and diastolic blood pressures postintervention.

There is a common perception that spiritual African Americans tend to adopt a passive orientation toward their health and will exhibit decreased self-efficacy with respect to treatment adherence and health-promotion practices.⁵² Yet, studies indicate that African Americans who develop spiritual relationships with God may experience a heightened capability or self-efficacy to manage difficult health situations and sense few barriers to health-promoting activities.^{31,53} In particular, this is true for those African Americans who view their personal relationships with God as partnerships to manage health concerns.^{31,52}

THE ROLES OF TRANSFORMATION AND CONSOLATION IN HEALTH

African American spiritual history endorses a view of a transcendent force that empowers the oppressed. For many African Americans, both transformation and consolation provide the strength to actively cope with illness.⁵⁴ Expressions of the transformative and consoling dimensions of African American spirituality have been documented in their experiences with cancer^{41,55} and HIV/AIDS,⁵⁶ their recovery from substance abuse,⁵⁷ and their management of diabetes⁴² and hypertension.³⁴

One salient example that illustrates the transformative dimension of African American spirituality is documented in a qualitative study examining 35 Christian African American women's beliefs about religion, health, and resistance to racism.¹⁶ Spiritual beliefs were found to empower the women to resist discriminatory practices and racism encountered in

healthcare. The women's belief in prayer created emancipatory thought; whereas the church provided social support and resources. Furthermore, in this article women shared stories about "spiritual philosophies to be used as creative healing forces and resistances to dominant ideology."¹⁶(p194) The women in this article discussed a healthcare system where they experienced racism, classism, and judgment from healthcare providers. However, their spirituality allowed them to maintain an "independent consciousness"¹⁶(p197) fostered by self-esteem in each of their encounters within the dominant white healthcare system. The transformation and consolation dimensions of African American spirituality were also illustrated in a qualitative study of 15 African American women recovering from substance abuse.⁵⁷ According to the women, transformation was described as an "inward change of something going on inside their hearts."¹⁶(p180) For these women, spiritual transformation resulted in a change in their thinking necessary for their recovery and maintenance of sobriety.

Spirituality and medication adherence: A conceptual model

Although scant, there is evidence that spirituality may enhance medication adherence in African Americans who are diagnosed with hypertension. Data to date from recent small-scale studies suggest that there is a positive relationship between spirituality and medication adherence in hypertensive African Americans.^{32,34,35} The outcome of African American spirituality may be associated with predictors of medication adherence. The role of African American faith in a transcendent force provides direction and guidance for maintaining health and suggests that they may use this spiritual dimension to make positive decisions about adherence to prescribed antihypertensive medications.^{19,28,34} The role of personal relationships with God, others, and self provides social support and increases self-efficacy.^{31,52} Both social support and self-efficacy are potent predictors of medication adherence by providing resources to overcome barriers associated with medication adherence.^{7-9,13,58-60} Finally, the roles of transformation (personal growth) and consolation provide strength and active coping, which may offer resources to combat barriers associated with medication adherence.³⁴ These 3 major dimensions of African American spirituality may work either together or independently to influence medication adherence.

However, the role spirituality plays in the relationship to medication adherence and blood pressure control has not been assessed and therefore unknown. On the basis of the research data presented above, we propose a conceptual model of spirituality and medication adherence that may be useful for developing spiritually based interventions to increase medication adherence in African Americans who are diagnosed with hypertension. The proposed model of spirituality and blood pressure control might be useful for examining the role spirituality plays in the relationship between medication adherence and blood pressure control as well as addressing the mechanisms of the effect of spirituality on blood pressure control. The model is shown in Figure 1.

How might we apply the proposed model to medication adherence in African Americans who are diagnosed with hypertension? To begin, we may examine the common barriers associated with medication adherence in this population. Individuals may then be encouraged to utilize their spirituality to negotiate the identified barriers. For example, one

of the major barriers to medication adherence in this population is the mistrust of healthcare providers because of the perception of racism. In the African American community, perceptions of racism often influence the decision making process toward rejecting medical advice. However, if African American individuals identify as a person whose spirituality is important to them, a healthcare practitioner may encourage them to utilize their spirituality to guide them toward medication adherence. In a spiritually safe and nurturing environment, the individual may be encouraged to explore spiritual beliefs associated with health-promoting behaviors. Evidence for this type of intervention is documented in a qualitative study examining spirituality and the management of chronic disease in older African Americans in which the participants utilized their spirituality to guide them toward medication adherence by rationalizing that God had created the medication for their benefit.³⁴

Mistrust of healthcare providers may stem from the power differential associated with the doctor and patient mindset.¹⁶ Individuals may be encouraged to utilize their spirituality to increase active coping, reframe the relationships with their healthcare providers and view those relationships as collaborative, rather than hierarchical.^{34,61} In this way, the individual may feel empowered that they have made the right decision to adhere to their antihypertensive medication.

Limited personal control or decreased self-efficacy, to manage their hypertension has been cited by African Americans as a significant barrier to medication adherence.⁶² Increased self-efficacy has been identified as one of the outcomes of African American spirituality. Individuals may be encouraged to turn to their spirituality as a method to increase feelings of personal control. Evidence to support this intervention is suggested in a qualitative study, in which African Americans used spirituality to facilitate feelings of personal control and viewed management of their hypertension as a collaborative relationship between God and an individual.³⁴

Another barrier to medication adherence is the adverse effect associated with antihypertensives. The use of spirituality has been identified as instrumental for African Americans with respect to coping with illness and medication adverse effects.³⁴ Because the transformative and consoling dimensions of African American spirituality provide resources for active coping, it may be that African American spirituality may enhance African Americans' ability to actively cope with medication adverse effects.

Implications for nursing research and practice

In this article, we described an innovative conceptual model of spirituality that may be useful for developing spiritually based interventions for increasing blood pressure control in hypertensive African Americans. The proposed model highlights significant and culturally appropriate dimensions of spirituality that stem from a history of slavery, oppression, and discrimination. These dimensions include (a) faith in a transcendent force; (b) relationships with God, self, and others; and (c) transformation and consolation. Spirituality in the African American community appears to play an important role in decision making and may provide resources for overcoming barriers to health-promotion and illness management. These resources are indicated as social support, increased self-efficacy, strength, and active coping,

all of which have been identified as potent predictors of medication adherence in hypertension management.^{8,9,58}

The proposed model of spirituality and blood pressure control highlights functions of spirituality that may be useful for nurses who provide care to African Americans diagnosed with hypertension. Incorporating individual beliefs, such as spirituality, into a plan of care capitalizes on patients' inner resources for hypertension management and demonstrates culturally appropriate care. Such healthcare professional actions may be one method of establishing a trusting relationship with the individual and might make them more likely to adhere to treatment. As healthcare providers, we may encourage spiritual individuals to (a) incorporate prayer or meditation into their daily management of hypertension or (b) develop sources of social support with fellow church members who are also diagnosed with hypertension.

Currently, there are too few studies examining spirituality and blood pressure control in African Americans. Further research exploring the effects of spiritual interventions on blood pressure control in randomized and controlled studies is needed. In particular, studies need to focus on whether African American dimensions of spirituality mediate or moderate the relationship between medication adherence and blood pressure control. It might be that the resulting consequences of spiritual dimensions, such as social support and self-efficacy, may be moderating the relationship between spirituality and medication adherence. In addition, we do not know if 1 dimension plays a greater role in medication adherence over another. Because spirituality is such an important individual belief among African Americans, each of these complex dimensions warrants further investigation as to the roles they may play in blood pressure control.

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FIGURE 1. Proposed conceptual model of spirituality and medication adherence for African Americans diagnosed with hypertension.