Chronic Illness (2010) 0, 1–14

RESEARCH PAPER

Exploring the role of spirituality in self-management practices among older African-American and non-Hispanic White women with chronic conditions

IDETHIA SHEVON HARVEY* and LAWANDA COOK†

**Department of Kinesiology and Community Health, University of Illinois at Urbana Champaign 1206 South Fourth Street, 127 S Huff Hall, MC-588, Champaign, IL, 61820, USA*
†Department of Recreation, Sports and Tourism, University of Illinois at Urbana-Champaign Diversity Research Laboratory, 1206 South Fourth Street, 104 Huff Hall, MC-584 Champaign, IL 61820, USA

Received 25 April 2009, Accepted 19 August 2009

Objective: The purpose of this study was to examine the role of spirituality in the self-management of chronic illness among older women with chronic conditions.
Methods: A sample of 41 African-American and non-Hispanic White women, of age 66 and older, participated in the process of self-care study. Data were collected from semi-structured interviews and analysed for common themes using the Grounded Theory method.
Results: Audiotaped and transcribed interviews identified four categories that emerged to suggest the influence of spirituality in behavioural change and disease management: (1) God's involvement in illness management; (2) prayer as a mediator; (3) spirituality as a coping mechanism; and (4) the combination of conventional and spiritual practices.
Discussion: Older women with various chronic illnesses defined 'spirituality' in a broad, holistic way, and the findings suggest that spirituality played a part in documenting the self-management process. Knowledge of spirituality and the role it plays in illness management may assist public health gerontologists in designing effective and culturally appropriate self-management programmes.

Keywords: Chronic conditions, Older women, Self management, Spirituality

INTRODUCTION

As women grow older, regardless of their cultural beliefs, they face similar challenges relating to declining physical health. Of the 90 million Americans living with a chronic illness, minorities and women are disproportionately affected.[1] It is a balancing act living with a chronic and debilitating condition because individuals often make daily decisions concerning the management of their illness. For women with multiple chronic conditions, the self-management process becomes even more complicated. What people think, feel, and do about their health is situated in a wider context that is indicative of an individual's self-management practices.[2,3] Chronic illness causes disruptions in work, family and daily living activities, and it is associated with diminished physical health and psychological well-being.[4,5] During the onset of chronic illness, religious, spiritual and cultural beliefs may be particularly important to older women as they struggle with physical limitations, and

Reprint requests to: Idethia Shevon Harvey.
Email: shevon@illinois.edu; fax: (217) 333-2766

DOI: 10.1177/1742395309350228

as they negotiate their self-management practices to accommodate those changes.[6]

Fundamental to self-management belief systems is the holistic orientation to health and well-being.[7,8] Recent evidence suggests that ageing adults often use spirituality for illness management.[6,9–12] Adding to the growing amount of literature concerning the role of spirituality in women's health,[13] this study examines the role of spirituality in the self-management of chronic conditions among older women. The research questions for this study are as follows: (1) How do older, chronically ill, women define 'spirituality'? and (2) How do those women use spiritual practices in their self-management practices of their health conditions? Early works suggested chronically ill older women use spirituality as a resource, but the available literature does not offer a clear description of how that process occurs. In addition, we have limited understanding about the definition of 'spirituality' among chronically ill older women and the role of spirituality has played as a resource in managing chronic conditions.

Self-management

Clement[14] defined 'self-management' as the knowledge attained and skills required in taking care of oneself, being able to manage crises, and changing one's lifestyle successfully. Clark *et al.*[7] described three sets of tasks that individuals must master to ensure successful self-management of chronic illness. First, the individual must be knowledgeable about the condition to determine the required care. Second, the individual must be able to perform activities to manage the condition. Third, the individual must apply skills essential to sustain adequate psychosocial functioning. In other words, self-management of chronic illness refers to the day-to-day activities that individuals adopt to keep the illness under control, to reduce its impact on their physical health status, and to cope with the psychosocial consequence of the illness. Such activities often include, but are not limited to, medication management, physical activity and dietary compliance.

Spirituality

Spirituality as a broad, multi-dimensional construct, lends itself to an individualistic perspective according to an individual's experience. Elkins *et al.*[15] viewed spirituality as a human phenomenon distinguishable from the tenets of religiosity. The assumption was that spirituality is a dimension of human experience, which includes personal values, attitudes, perspectives, beliefs and emotions. The components of spirituality can fall under the categories of (1) transcendent dimension and (2) meaning and purpose in life.[16] The spiritual person has an experientially based belief that there is a transcendent dimension or the 'natural extension of the conscious self into the regions of the unconscious or Greater Self'. In other words, the spiritual person believed in the 'unseen world' which is beneficial.[15] Fry[17] furthered the described transcendence as either intrapersonal or transpersonal transcendence. Intrapersonal transcendence is considered the inner self as a source to turn to during a crisis while transpersonal transcendence described the connectedness with God or a higher power. Fowler[18] contended that connectedness with God or a higher power produced optimism and enhanced adaptive capacities among older adults with chronic conditions. In addition, transpersonal transcendence is associated with developing a sense of meaning and purpose in one's life and finding meaning in suffering.[19]

Studies investigating spirituality as a philosophy or attitude have found that individuals who report greater spirituality have lower levels of depression,[20] improved subjective states of well-being,[21] improved quality of life,[22] and a reduction in disease morbidity and an increase in longevity.[23] As stated by Burkhart and Solari-Twadell,[24] spirituality is an 'experience of and integration of meaning and purpose in life through connectedness with self, others, art, music, literature, nature or a power

greater than oneself' (p. 419). Moreover, research suggests that spirituality may be particularly important among women with chronic conditions.[25] Ashing and colleagues found that breast cancer survivors had strong spiritual beliefs regarding the outcome of their illness. Specifically, the participants depended on prayer to help them deal with their chronic illness.

Self-management and Spirituality

Spiritual practices and religion have been found to help older adults cope with chronic conditions.[26] Prior research has demonstrated that older adults use faith-based strategies to address their chronic conditions.[27–29] Harvey and Silverman[10] and Mansfield *et al.*[30] stated that African-Americans reported that God worked through their doctors to help care for their conditions. Leach and Schoenberg[31] used individual interviews with multiple morbidities to examine how disadvantaged middle and late life adults use self-management strategies for their chronic conditions. The participants in the study reported the use of cognitive structure techniques, self-care regiments and faith-oriented strategies. Although both races were consistent in self-care and cognitive structuring techniques, African-Americans were more likely than non-Hispanic Whites to mention prayer and receiving support from God and church members. In addition, Loeb *et al.*[27,28] reported that participants used a variety of coping strategies their chronic conditions. The specific coping strategies included relating with healthcare providers, medicating, exercising, changing dietary patterns, seeking information, relying on spirituality and/or religion, and engaging in life.[28] Loeb's[27] most recent study indentified 'dealing with it', engaging in life, exercising, seeking information, relying on God, changing dietary pattern, medicating, self-monitoring and self-advocacy as coping strategies among older African-Americans. Participants in both studies reported the importance of religion and God.[27,28]

Strategies related to spirituality and/or religion activities, such as prayer, church and divine intervention, were frequently cited as valuable in working through tough times with chronic illnesses. Samuel-Hodge *et al.*[29] also found that God played a central, supportive role in the management of chronic illness among Black women. Prayer was viewed by African-Americans and non-Hispanic Whites as a major component of their self-management of chronic disease.[10,27,28] Forms of spirituality, such as praying or meditating, may help individuals cope with chronic illness, serving as an internal agency to perform behavioural changes to mediate the chronic condition. Although a number of authors have explored the importance of spirituality with chronically ill individuals.[27,32–35] The use of spirituality in the process of self-management practices has not been researched.[9,10,36] This study aims to fill this gap in the body of knowledge (1) by understanding how older women define spirituality and (2) how they use spirituality to manage their chronic illness.

METHOD

The Parent Study

Participants in the present study were enrolled in a larger 4-year longitudinal study funded by the National Institute on Aging (R01-AG 18308). This larger study, titled 'Process of Self-Care: Comparison of Older African-Americans and Whites' and labelled the 'parent study', examined the process of self-care for hip or knee osteoarthritis (OA) and ischemic heart disease (IHD) in a community sample of older African-Americans and non-Hispanic Whites in Allegheny County, Pennsylvania. The parent study's sampling frame was the Medicare Enrollment File for Allegheny County in April 2001. African-Americans were over-represented in the parent study to achieve an adequate sample size for statistical analyses, and the sample was stratified by

gender and race to assure a more effective comparison when using these indicators. Disease eligibility criteria were based on a series of self-report questions derived from the National Health and Nutrition Examination Survey (1994) and self-report disease markers for cardiac conditions and treatments. Additional eligibility criteria included living in the community, residing in Allegheny County, being 65 years of age or older, and lacking cognitive impairment. Participants were interviewed four times during a 36-month period between June 2001 and July 2004.

The Present Study

Prior to the third interview of the parent study, a pilot test was conducted by the author with a purposive sample of 10 individuals, aged 69–79, that aimed to determine the appropriate questions for the present study. This sample consisted of individuals currently enrolled in the parent study. The Institutional Review Board of the University of Pittsburgh (IRB-UP) approved the pilot study in which respondents were asked to define spirituality and explain how spirituality or spiritual beliefs helped them manage their illness. Persons refusing to participate in the pilot study remained eligible for participation in the parent study. The results from the pilot study helped determine which questions were appropriate to use in the research study. After completing the pilot test, the spirituality questions were added to the parent study questionnaire, which was approved by the IRB-UP (see Table 1 for final questionnaire). By the third wave of the parent study, 959 participants were actively enrolled, but 414 of these enrolled participants had not been interviewed. Approximately, 10% of the 414 older community-dwelling African American and non-Hispanic women in the parent study were selected through quota sampling ($N = 41$).

Five females with interviewing experience conducted interviews in either the women's homes or an agreed-upon location. These interviewers, including the primary author, were trained in the disciplines of public health, nursing or anthropology, and had extensive prior work experience as interviewers. The training consisted of didactic sessions, interactive role-playing and field demonstration 2 weeks prior to the start of the study. Data collection began in November 2003 and ended in February 2004. The interview guide was loosely organized around topics such as the woman's personal history, definition of spirituality, life history of chronic conditions and

TABLE 1. *Spirituality questionnaire*

1. There are many ways that people define spirituality. It can mean different things to different people. We would like to know, what does being spiritual mean to you? (PROBE: We really would like to understand, how you define spirituality).
2. You also mentioned that your most important health problem is _____. People have told us many different ways that their spirituality or spiritual beliefs have helped them with their most important health problem. Can you tell me how your spiritual beliefs or feelings about spirituality have helped you? (PROBE: Is there any other way?)
3. People have also told us that there are many different ways in which spirituality or their spiritual beliefs have helped them. How have your spiritual beliefs or spirituality helped you deal with your illness? (PROBE: Can you tell me in what ways your spiritual beliefs or spirituality helped you manage or cope with your illness? What *did* help you get through this?)
4. Are there specific aspects about your health problems that cause you to rely on _____ (e.g. pain, health getting worse, etc.)? When there are 2 or more responses to Question 4, ask: Which one is the most important? Why? When would you use one rather than the other?
5. Sometimes people pray for each other's health. Do others pray for your health? Can you tell me who prays for your health?

the use of spirituality in illness management. The women were invited to describe their life history if they wished, to refuse to participate, or suspend the interview.

Instruments

The qualitative sample received additional questions at the end of the parent study interview regarding their spirituality and self-management behaviours. To foster closer rapport between interviewers and respondents, the interviewers' ethnicity and race were matched with the respondents' ethnicity and race (i.e. African-American interviewers were matched with African-American respondents). All participants signed an informed consent form prior to the interview. After describing confidentiality procedures and obtaining informed consent, a single 1- to 1.5 hour interview was audiotaped and later transcribed. With permission from the participants, all interviews were audiotaped. Respondents were asked the question: 'There are many ways that people define *spirituality.* It can mean different things to different people. We would like to know, what does being spiritual mean to you?' After ascertaining the respondents' definition of *spirituality,* these adults were subsequently asked:'You also mentioned that your most important health problem is _____. People have told us many different ways that their spirituality or spiritual beliefs have helped them with their most important health problem. Can you tell me how your spiritual beliefs or feelings about spirituality have helped you?' The questions focussed on the participant's experience with spirituality, the personal meaning of spirituality and the role of spirituality in that individual's self-management behaviour. Throughout the interview, the interviewers followed the participant's lead. For instance, if the respondent used words such as *prayer* or *God* to describe the use of spirituality, the interviewers incorporated that word into the follow-up questions. During the interview, interviewers made every effort to encourage candid responses.

Analytic Process

Symbolic interactionism[37] directed the study's framework and is cited as the foundation of the grounded theory approach to data analysis.[38] Interactionist research centres around the assumption that people interact based on their individual symbolic understandings, and they adjust their actions in response to changing perceptions of their environment.[39] Because meanings are constantly re-created through human interaction, the author is directed to examine shifts and trajectories of the participants' experience, the influences that affect identities, and participants' perceptions of events that change the course of processes, such as illness-management and spirituality.

Textual Analysis: Grounded Theory

Grounded Theory [40–42] was used to analyse interview transcripts. This approach is designed to discover rather than verify theory within textual data. The process began with open coding, a process of 'untangling' the data into concepts that can be labelled and sorted while the analyst remains 'open' or unrestricted by predetermined theory.[43] The data were labelled line by line; discrete concepts, which included events, feelings, actions or qualities of an experience, were grouped under category labels. Each category of concepts was considered in terms of its dimensions or characteristics, and each instance was compared to other instances in the process of constant comparative analysis. Explanations for differences were sought, the categories were related to other categories and a theoretical interaction began to emerge for further exploration.[40] After coding 10 transcripts, important concepts were collapsed into a code list of six simple and general categories. All subsequent transcripts were coded using those categories, and text excerpts were amassed under each category in growing representations of the range of variation

within each code. Analysis of several interviews, with long segments of content on spirituality, was examined from the pool of 41 interviews to expand our theoretical grasp of the self-management process. In that fashion, eventually we analysed every transcript and fit each woman's story into our conceptual framework. Thus, the final analysis included the full range of levels of spirituality represented within our sample.

To insure inter-rater reliability in the coding of the themes, a consultant with the research team separately coded 20% of the same material (i.e. eight randomly selected transcriptions). Several meetings occurred to deal with inconsistencies among the codes and multiple iterations were made to achieve consensus regarding the coding and interpretation of themes. Discussions were held between the research team and an independent reviewer, memos were exchanged and ideas were challenged. The author, the study research team and an independent coder met several times to reconcile inconsistencies in the identification and interpretation of themes. After undergoing several revisions, themes were finalized into major categories based on the participant's ability to manage their illnesses. To check, retrospectively, the degree of support for the final theory across the sample, the author and research team returned to all 41 interviews to determine how many women had spontaneously described each component of the spirituality and self-management process.

Participants

Sociodemographic and health characteristics of the sample are shown in Table 2. The sample was selected from 414 women from the larger study and consisted of 21 African-Americans and 20 non-Hispanic Whites with an average age of 72.9 years (SD = 5.33 years; range = 66–85 years). Less than half the sample was married (41.5%) while 31.7% were widowed. Considerable variation occurred in educational levels: 20% had not completed high school, 46.4% had at

TABLE 2. *Respondent's demographic characteristics by race (N = 41)*

	African-American $N = 21$ (%)	non-Hispanic White $N = 20$ (%)	All respondents $N = 41$ (%)
Ethnicity/race (self-identify)	51.2	48.8	
Age			$X = 72.9$; SD = 5.33
66–74	61.9	65.0	63.4
75 and 85	38.1	35.0	36.6
Marital Status			
Single, never married	4.8	10.0	7.3
Married	42.9	40.0	41.5
Widow	19.0	45.0	31.7
Divorced or separated	33.3	5.0	19.5
Education			
High school or less	9.5	30.0	19.5
High school	33.3	35.0	34.1
Some college	38.0	20.0	29.3
Bachelor/masters	19.1	15.0	17.1
Chronic conditions			
Heart disease and hypertension	47.6	50.0	48.8
Arthritis	14.3	35.0	24.4
Diabetes	23.8	5.0	14.6
Other	14.3	10.0	12.2

least 2 years of college or college degrees. The major health problems in the sample included: heart disease and hypertension (48.8%); arthritis (24.4%); diabetes and complications due to diabetes (i.e. kidney dialysis) (14.6%); and various other chronic conditions (12.2%).

RESULTS

Defining Spirituality

Results from the in-depth interviews are presented using verbatim comments (i.e. the themes are presented without grammatical correction). Understanding older women's definitions of spirituality was the first step in determining a working model for self-management of chronic illness. Women defined spirituality in a broad, holistic way that exhibited the interconnections through their relationships with others and with the sacred (i.e. God). The dimension of spirituality was found in everyday life (i.e. the belief that God was intimately involved in every aspect of the participant's life). The results showed that the vast majority of the participants defined 'spirituality' as a relationship with a higher power and helping others, which became my working definition of spirituality. According to the participants, spirituality was a key component in managing their chronic illness.

Religious Beliefs and Practices

More than half of the sample, 65.9% (27 of 41 respondents) believed in or had faith in God, Jesus or Jehovah. Spirituality was expressed through religious rituals such as prayer ($n = 31$; 75.6%) and Bible reading ($n = 11$; 26.8%). Spirituality provided emotional stability, as told by a 78-year-old participant with heart disease:

> *I speak to Him every morning . . . . I cannot talk to my husband about it [heart disease] . . . . I cannot talk to any of my friends about it [heart disease] . . . . I talk to Him [God].*

Reading the Bible was referred to as the source of spiritual information for the self-management of their health. A 70-year-old woman with diabetes stated:

> *Because the Bible and it is God's word, it says that my body is the temple of the Holy Spirit. Therefore, I am not to eat or drink in excess anything that is going to harm it. I know that too much of certain foods would cause my body to retain fluid.*

Likewise:

> *I believe God has given us a diet. And, He told us what to eat and what we should eat and not to eat . . . nuts and grains and fruits and vegetables and stuff. Those things we know are good for us . . . . It is not that God did not tell us how to do it in the first place. It is our problem. But I believe if we follow Him and live this diet and even taking care of our bodies by getting enough rest and, you know, eating the right things and having the right frame of mind. In other words, having the relationship with Him, communing with Him through prayer. I believe that helps us.*

Finally, this special connection helps guide the participants as they go through the day. God is constantly and always available to help navigate their lives. Participants reported that God played a central role on being their source of strength in dealing with their chronic conditions.[29,44] An example of God's guidance was found in a 68-year-old woman with arthritis, who said:

> *In everyday living I connect with Him . . . saying . . . "Lord, I need your guidance. I need your input . . . . I need guidance in everything that I do, and He delivers me to the guidance.*

Meaning and Purpose

Having 'meaning and purpose in life' was identified as a critical attribute within this sample.[15,24] Ten out of 41 women (24%) women described helping others as an extension of their spirituality.

> *I help others. I used to take care of an old lady across the street. I used to cook her dinner every day. And, you know, go over and see about her and stuff. And I worked in a lot of church programs and stuff like that. I worked in the kitchen and cooked.*

Role of Spirituality in the Self-management of Chronic Illness

The participants described the strategies related to the management of their chronic illness; these strategies provided a perspective of God that perpetuated their working through ongoing challenges created by multiple chronic health conditions. Within the sample, four themes emerged to suggest the influence of spirituality in behavioural change and disease management:[1] (1) God's involvement in illness management; (2) prayer as a mediator; (3) spirituality as a coping mechanism; and (4) a combination of conventional and spiritual practices.

God's Involvement in Illness Management

The women's narratives reflected their deep and abiding faith and trust in God. They believed that God provides the means to get through their illness by either restoring them to health or accepting the outcome of their health. They believed God acted as a conduit by using doctors to address their chronic conditions. Similar to the other statements, a 69-year-old woman with diabetes exemplified that phenomenon in the following statement:

> *It helped me to know that with God and . . . with the help of my doctor, and I would be well . . . I think these are talents that are endowed to people, and I believe they are endowed by God . . . . That's the only way you can deal with the illness; is through your faith in the Lord and what you know is going to be the outcome of whatever you have. You just trust in the Lord. And He sends you where you need to go and He sends people that you need to see.*

The preceding quotes represented a dyadic relationship (e.g. God and the doctor) in relation to management of disease. Participants in this study believed that God was in control of their health and they trusted God with their health outcomes. Some of the responses suggested that God works with and through doctors to promote healing.

Prayer as Mediator

Prayer, as an expression of spirituality, played a central role in the self-management of chronic illness. While remaining extremely intimate, prayer was a broad process of expressiveness that reflected the diversity of culture and religion and provided the framework that enabled each woman to connect with God. The categories of prayer included petitioning God to help in the management of chronic illness and alleviating physical conditions. Several participants prayed before taking prescribed medications, prayed while performing disease-specific self-care practices, and prayed in the middle of medical treatments. An example of this category was found in another 69-year-old participant with heart disease who explained:

> *I walk the street and pray; I ask for God's help. I have had hypertension over the years. I think when you pray about something, you can only take it to God one time. Therefore, when I pray, I say I am leaving it in your hands. I ask God to give me the strength to take my medication.*

As stated previously, participants prayed for God to heal or alleviate their symptoms. A 70-year-old participant with heart disease described how prayer helps alleviate her tachycardia:

> *There have been moments when I have had severe palpitations, shortness of breath, and pain. And I have just simply prayed and asked God to alleviate the situation and to change the situation . . . . It was really, for me, a prayer-answering result . . . . It has helped me a lot when it is getting very difficult for me to breathe. Sometimes I just say a little prayer and just ask for some help. I just ask God to ease my breathing.*

Furthermore, when the women's pain level is unbearable, turning to a power greater than oneself becomes an alternative means for managing pain. During these painful flare-ups, prayer was used to distract the participants from their pain. In fact, several women commented on the 'prayer-response' mechanism in pain management. An example of that phenomenon was described by a 77-year-old with hypertension:

> *I prayed the pain would go away, and it went away . . . . When you have bad pain and everything, you pray to the Lord; please take it away . . . .*

Sometimes when the pain is stronger, I pray probably with a little more frequency, with a little more earnestness.

To these participants, prayer was seen as a powerful pathway to pain management. Problems with illness, pain and suffering were seen as inevitable among the study participants; however, prayer supported the participants through their medical adversities by sustaining the pain, if only temporary.

Spirituality as a Coping Mechanism

The women utilized many approaches to cope with stressors of chronic illness and pain. Participants repeatedly described the process in which they incorporated spirituality as a coping mechanism. This mechanism alleviated several physiological and psychological stressors, such as pain and helplessness. The following narrative represents how each described the use of spirituality to cope with her illness:

If I feel that I am in a physical crisis, it helps me to cope by reminding me that the ultimate choice of whatever the outcome of this situation is, is not my own . . . my coping skills are enhanced; I calm down and I get quieter. Sometimes it just gives me such a relief from the tensions or whatever the crisis that I am just better able to deal with it. If I am nervous, if I am jittery, I just seem to get this sensation of peace and quiet that comes over me . . . I believe the hand of God and the touch of God . . . . That quiets and consumes me. I can cope . . . . I would not be able to do that without having the spirituality to help me get through that.

Similarly, a 79-year-old woman explained how her spirituality accompanied by meditation helped her to manage type-2 diabetes and depression:

Well, when you meditate, that kind of lightens your burdens of all what bothers you or your aches and pains, everything is wrong with you . . . . When I get all depressed or something and I call on Jesus, and it just helps.

The participants gave detail example of the integration of spirituality into their reasoning and problem-solving techniques, an approach that served to help with their problem-focussed and emotion-focussed coping strategies.

Combining Conventional and Spiritual Practices

It became evident that a personal relationship with God extended His role in the self-management of the participants' chronic illness. Therefore, combining conventional and spiritual methods was defined as a therapeutic approach that merges conventional medical practices with spiritual beliefs and practices. Several respondents repeated the need to use a combination of God and medicine or self-management.

I believe you need both God and medicine. You cannot just pray and then forget everything else. I think they both work together. I still have to watch my diet and I have to try and exercise and take my meds . . . . Well, it makes you feel good after you have prayed . . . . I have a little help from pills from the doctor to make it feel better.

Well, it makes you feel good after you've prayed. And then, too, you feel that you've told God about it. And if there's anything He's going to do, He's going to do it and make you feel better. And a lot of times He does make you feel better. I have a little help from pills from the doctor to make it feel better.

Well, my knee arthritis, I'm going to see a doctor about it, but I know that someway, somehow, God will help me until I get to that doctor.

This theme indicates that participants believe they have a role to play in maintaining their health. Simply stated, those who practise this type of spirituality believed that God gave them the ability and knowledge to change their behaviour. Furthermore, the qualitative interviews were useful tools for understanding the relationship between spirituality and self-management of chronic conditions. These narrative-based categories suggest that self-management is deeply embedded in the participants' spiritual beliefs.

DISCUSSION

Using qualitative data from a sample of 41 older women with a myriad of chronic conditions, we explore the definition of spirituality and the process in which spirituality was used to manage the various conditions. The participants' personal accounts

give new depth and perspective to how spirituality played a prominent role in their lives and how spirituality related to specific illness management strategies such as dietary changes. To the authors' knowledge, this study is one of the few studies to specifically ask participants to define spirituality[45] and to document the process of how spirituality influences illness management. Spirituality was defined as an integrated, holistic dimension that included interconnectedness with self, others and the sacred, which shaped their way of life. In other words, spirituality reflected the women's lives and the women's lives reflected their spirituality. Consistent with the literature,[15,44,46,47] participants defined spirituality as a transcendent relationship with God and provided meaning and purpose to their lives as valuable human beings.[45] When individuals identified their connection with God, they felt empowered to deal with their chronic conditions. This allowed the women in this study to focus on others rather than themselves, which helped put their own chronic illness in perspective. They considered their physical limitations minimal when they compared themselves to others. [31]

In addition to defining spirituality, this study sought to understand how chronically ill women used spirituality in the self-management of their health condition. Although it is well-documented that spirituality provided benefits in terms of recovery from illness or enabling people to cope with illness,[48–50] we know very little about the process of spirituality used in self-management practices. The qualitative analyses revealed that a vast majority of the women attributed their self-management practices to their spirituality, which was demonstrated in a variety of responses from God's involvement in self-management to coping with the chronic condition. The findings in the study suggest that spirituality or transpersonal transcendence[47] plays a vital role in documenting the self-management process. These findings are consistent with other researchers[30] who found that older adults endorsed the belief that God works through medical doctors to diagnose and treat diseases. The women, however, did not relegate control to their doctors or to God,[31] whether or not they turned to God as a source of support for illness management through spiritual practices. The women in this study believe that they were responsible for the management of their healthcare.[29]

The women in the study integrated their religious resources in everyday situations. The most prevalent form of religious resources reported was prayer. Participants prayed all day, throughout the day. Examples including praying: in the morning, at night, on the bus, in the doctor's office, in the dialysis clinic, in church, in their homes, with family or friends, with religious leaders, with medical professionals or by themselves. These findings support the commonness of prayer cited in prior research studies.[51–54] Furthermore, the participants prayed for either healing of chronic health conditions, acceptance of their current life situation or relief from health problems. The women believed that their prayers helped them to feel better in spite of their health conditions. Consistent with reseach,[48,55–57] the more flexibility regarding prayer beliefs, the greater satisfaction individuals have with prayer. Similar to Sodestrom and Martinson's study,[58] the women rank prayer as their highest spiritual coping strategy. Positive attributes of God may have helped these individuals to believe that they had personal control when confronted with an uncontrollable situation. For example, one participant said, '[I] know that God does answer prayers. He may not always do it when you want it, but He's always on time'. In addition to prayer,[48,50,56,59,60] we found that the participants used meditation as a means of coping with chronic conditions. Meditation from the women's perspective was communicating with and attuning oneself to God. This finding suggests that older adults may use more cognitive approaches to self-management, and it supports the cognitive coping techniques found in the studies of

Leach and Schoenberg[31] and Loeb.[27] According to Loeb[27] and Harris-Robinson,[61] reliance on God produced both emotion-focussed and problem-focussed coping techniques. This may suggest that as an individual deals with a health crisis, the ability to integrate cognitive and emotional processes becomes greater.

The participants did not negate their sense of responsibility in illness management even though they discussed the shared control they had with God.[62] This collaborative relationship with God seemed to empower the women to manage their chronic conditions, and it gave a platform that combined their faith with formal healthcare and health-promoting behaviours. Although past research focused on religious beliefs,[63] the findings in this study were consistent with Benjamins and Brown[64] literature. Both Strawbridge *et al.*[63] and Benjamins and Brown[64] saw improvements in health and an increase in preventive services among older adults, who reported high levels of religious involvement. Benjamins and Brown[64] posited that individuals with strong religious beliefs were motivated to practice preventative medicine. The women indicated that the connection between spirituality and self-management made a difference in helping to promote positive health outcomes.

Of course, a number of challenges arose within this study. A qualitative study of this kind can only yield insight into a range of issues considered important by women at this stage of their lives, as well as its cross-sectional design. Developing qualitative longitudinal data can provide a clearer picture of the process regarding self-management. This study used five interviewers to in interview the research participants. We hoped that the semi-structured interviews would act as a guide. However, the interviewers decided when and in what sequence to ask questions they deemed pertinent to the study. The interviewers also faced time constraints and whether or not to probe for detail, or to allow the participant to regress from the interview. These decisions may lead to interviewer bias or response bias from the participant. In addition, participants were residents of Allegheny County, Pennsylvania. Therefore, the study cannot be generalized outside of Allegheny County, Pennsylvania, or with the chronically ill younger than 65 years of age. Furthermore, the sample was predominately Christian and of European-American and African-American descent. It is unknown how Asian or Latino Americans use spirituality in the self-management of their chronic illness. Most research in spirituality/religion and healthcare has typically occurred in populations from this Caucasian-American and African-American background. Further study on the role of spirituality in the lives of the chronically ill elders should include other non-Christians, as well as agnostics and atheists, allowing a broader understanding of spiritual issues across religious and non-religious sectors. Given the increase in diversity among older adults, more attention needs to be given to other religions and spiritual belief systems.

In spite of these limitations, the qualitative methodology used in this study was well suited to investigate and examine the participants' data. A quantitative survey study would have been less useful in creating a meaningful person-centred definition of spirituality or in providing in-depth information in the self-management of chronic health conditions. Qualitative studies of spirituality and self-management are important for understanding the culture of spirituality and the specific ways in which older adults link the two constructs. Cultural beliefs associated with expressions of health are central to the culturally specific knowledge and habits share by a group of people. Miller[65] reported that culture and spirituality are interrelated. Women of different cultural backgrounds had different expectations and responded differently to each question when describing the utilization of spirituality in the management of their illness. The belief

system between ethnic and cultural heritages was so interwoven into a spirituality and religious affiliation that it became difficult to separate culture from spirituality. Thus, the meaning of self-management among older women can occur within the context of beliefs and experience regarding aging, health and spirituality. With a deeper understanding in the way, older women define and use spirituality knowledge and practices will have meaningful functions. The cultural needs and behaviour of the women need to be recognized and understood in order to have therapeutic and meaningful practice outcomes. As indicated in this study, the experience of spirituality, self-management and chronic illness is complex and multifaceted, emerging from interrelationships between individuals and God. To address some of the limitations of current work, future research should focus on the use and development of reliable and valid measures exploring the association between spirituality, culture and self-management practices. In addition, more studies are needed to investigate the role of feminism in spirituality and self-management practices, more specifically womanism or black feminism among African-American women. Longitudinal studies are needed to evaluate how spirituality and its relationship to self-management are affected over time. The entire spectrum of spirituality and self-management—from different cultures, faiths, and races—has not been researched, such as Native American, Asian Americans, Pacific Islanders and Hispanics with different faiths. Moreover, understanding the experience of chronically ill elders may offer hope in developing more culturally and spiritually appropriate self-management programmes.

End note

[1]None of the participants mentioned delaying medical care or rejecting medical advice based on their spirituality or spiritual beliefs.

ACKNOWLEDGMENTS. Funding for this project was supported by National Institute on Aging Grant, Research Supplement for Underrepresented Minorities (R 01 AG 18308–S1). The authors would like to acknowledge the 'Self-Care' team members who played a vital role in the data collection and Dr Myrna Silverman for her guidance during the project.

REFERENCES

1. Centers for Disease Control and Prevention. Chronic diseases: the leading causes of death. 2007. Available at: http://www.cdc.gov/nccdphp/publications/factsheets/ChronicDisease.htm.
2. Ickovics JR, Thayaparan B, Ethier KA. Women and AIDS: a contextual analysis. In: Baum A, Revenson TA, Singer JE, eds. *Handbook of health psychology*. Mahwah, NJ: Erlbaum, 2001: 817–39.
3. Revenson TA. All other things are not are equal: an ecological perspective on the relation between personality and disease. In: Friedman HS, ed. *Personality and disease*. New York: John Wiley, 1990: 65–94.
4. Lorig KR, Ritter P, Stewart AL, *et al*. Chronic disease self-management program: 2-year health status and health care utilization outcomes. *Med Care* 2001; **39**: 1217–23. Available at: http://links.jstor.org/sici?sici=002579%28200111%2939%3A11%3C1217%3ACDSP2H%3E2.0.CO%3B2-2.
5. Miller JF. *Coping with chronic illness: overcoming powerlessness*, 3rd edn. Philadelphia, PA: F. A. Davis, 2000.
6. Ramsey JL, Blieszner R. *Spiritual resiliency in older women: models of strength for challenges through the life span*, Thousand Oaks, CA: Sage Publications, 1999.
7. Clark NM, Becker MH, Janz NK, Lorig K, Rakowski W, Anderson L. Self- management of chronic disease by older adults: a review and questions for research. *J Aging Health* 1991; **3**: 3–27.
8. Thorne S, Paterson B, Russell C. The structure of everyday self-care decision making in chronic illness. Qual Health Res 2003; **13**: 1337–52.
9. Harvey IS. Self-management and chronic illness: an exploratory study on the role of spirituality among older African American women. *J Women Aging* 2006; **18**: 75–88.
10. Harvey IS, Silverman M. The role of spirituality in the self-management of chronic illness among older African Americans and Whites. *J Cross Cult Gerontol* 2007; **22**: 205–20.
11. Polzer RL, Miles MS. Spirituality and self-management of diabetes in African Americans. *J Holist Nurs* 2005; **23**: 230–50.

12. Votova K, Wister AV. Self-care dimensions of complementary and alternative medicine use among older adults. *Gerontol* 2007; **53**: 21–27.
13. Lauver DR. Commonalities in women's spirituality and women's health. *Adv Nurs Sci* 2000; **22**: 76–88.
14. Clement SCDE. Diabetes self-management education. *Diabetes Care* 1995; **18**: 1204–14.
15. Elkins DN, Hedstrom LJ, Hughes LL, Leaf JA, Saunders C. Toward a humanistic–phenomenological spirituality: definition, description, and measurement. *J Humanistic Psychol* 1988; **28**: 5–18.
16. Fetzer Institute Publication. Multidimensional measurement of religiousness/spirituality for use in health research, 1999..
17. Fry A. Spirituality, communication, and mental health nursing: the tacit interdiction. *Aust NZ J Ment Health Nurs* 1998; **7**: 25–32.
18. Fowler SB. Hope and a health-promoting lifestyle in persons with Parkinson's disease. *J Neurosci Nurs* 1997; **29**: 111–16. Available at: http://find.galegroup.com.proxy2.library.uiuc.edu/itx/infomark.do?&contentSet=IAC-Documents&type=retrieve&tabID=T002&prodId=EAIM&docId=A19449170&source=gale&srcprod=EAIM&user\GroupName=uiuc&version=1.0.
19. Halstead MT, Mickley JR. Attempting to fathom the unfathomable: descriptive views of spirituality. *Semin Oncol Nurs* 1997; **13**: 225–30.
20. McClain CS, Rosenfeld B, Breitbart W. Effect of spiritual well-being on end-of-life despair in terminally-ill cancer patients. *Lancet* 2003; **361**: 1603–7.
21. George LK, Larson DB, Koenig HG, McCullough ME. Spirituality and health: what we know, what we need to know. *J Soc Clin Psychol* 2000; **19**: 102–16.
22. Bosworth HB. The importance of spirituality/religion and health-related quality of life among individuals with HIV/AIDS. *J Gen Intern Med* 2006; **21**: S3–S4.
23. Levin JS. How prayer heals: a theoretical model. *Altern Ther Health Med* 1996; **2**: 66–73.
24. Burkhart L, Solari-Twadell A. Spirituality and religiousness: differentiating the diagnoses through a review of the nursing literature. *Nurs Diagnosis* 2001; **12**: 45–54. Available at: http://search.ebscohost.com.proxy2.library.uiuc.edu/login.aspx?direct=true&db=aph&AN=5426100&site=ehost-live.
25. Ashing KT, Padilla G, Tejero J, Kagawa-Singer M. Understanding the breast cancer experience of Asian American women. *Psychooncology* 2003; **12**: 38–58.
26. Chin MH, Polonsky TS, Thomas VD, Nerney MP. Developing a conceptual framework for understanding illness and attitudes in older urban African Americans with diabetes. *Diabetes Educator* 2000; **26**: 439–49.
27. Loeb SJ. African American older adults coping with chronic health conditions. J Transcult Nurs 2006; **17**: 139–47.
28. Loeb SJ, Penrod J, Falkenstern S, Gueldner SH, Poon LW. Supporting older adults living with multiple chronic conditions. West J Nurs Res 2003; **25**: 8–29.
29. Samuel-Hodge CD, Headen SW, Skelly AH, *et al.* Influences on day-to-day self-management of Type-2 diabetes among African–American women: spirituality, the multi-caregiver role, and other social context factors. *Diabetes Care* 2000; **23**: 928–33.
30. Mansfield CJ, Mitchell J, King DE. The doctor as God's mechanic? Beliefs in the southeastern United States. *Soc Sci Med* 2002; **54**: 399–409.
31. Leach CR, Schoenberg NE. Striving for control: cognitive, self-care, and faith strategies employed by vulnerable black and white older adults with multiple chronic conditions. *J Cross Cult Gerontol* 2008; **23**: 377–99.
32. Ai AL, Peterson C, Tice TN, Huang B, Rodgers W, Bolling SF. The influence of prayer coping on mental health among cardiac surgery patients: the role of optimism and acute distress. *J Health Psychol* 2007; **12**: 580–96.
33. Chen YY, Koenig HG. Do people turn to religion in times of stress? An examination of change in religiousness among elderly, medically ill patients. *J Nerv Ment Dis* 2006; **194**: 114–20.
34. Dilworth-Anderson P, Boswell G, Cohen MD. Spiritual and religious coping values and beliefs among African American caregivers: a qualitative study. *J Appl Gerontol* 2007; **26**: 355–69.
35. Gall TL, Charbonneau C, Clarke NH, Grant K, Joseph A, Shouldice L. Understanding the nature and role of spirituality in relation to coping and health: a conceptual framework. *Can Psychol* 2005; **46**: 88–104. Available at: ; http://www.csa.com/ids70/gateway.php?mode=pdf&an=2005-04336-004&db=psycarticles-set-c&s1=1560f2c7cff7b8bb3d37e9208e870cea&s2=e7caebd3884d12a34ba8cda91f0bb8c3.
36. Polzer RL, Miles MS. Spirituality in African Americans with diabetes: self-management through a relationship with God. *Qual Health Res* 2007; **17**: 176–88.
37. Blumer H. *Symbolic interactionism: perspective and method.* Englewood Cliffs, NJ: Prentice-Hall, 1969.
38. Charmaz K. 'Discovering' chronic illness: using Grounded Theory. *Soc Sci Med* 1990; **30**: 1161–72.
39. Burr WR, Leigh G, Day R, Constantine J. Symbolic interaction and the family. In: Burr WR, Hill R, Nye FI, Reiss IL, eds. *Contemporary theories about the family: general theories/theoretical orientations: Volume 2.* New York: Free Press, 1979: 42–111.
40. Glaser BG. *Basics of Grounded Theory analysis: emergence vs. forcing.* Mill Valley, CA: Sociology Press, 1992.
41. Glaser BG. *Theoretical sensitivity: advances in the methodology of Grounded Theory.* Mill Valley, CA: Sociology Press, 1978.

42. Glaser BG, Strauss AL. *The discovery of Grounded Theory: strategies for qualitative research.* Chicago: Aldine Publishing Company, 1967.
43. Strauss AL, Corbin J. *Basics of qualitative research: Grounded Theory procedures and techniques*, Thousand Oaks. CA: Sage Publications, 1990.
44. Reed PG. Spirituality and well-being in terminally ill hospitalized adults. *Res Nurs Health* 1987; **10**: 335–44.
45. Popkess-Vawter S, Yoder E, Gajewski B. The role of spirituality in holistic weight management. *Clin. Nurs Res* 2005; **14**: 158–74.
46. Albaugh JA. Spirituality and life-threatening Illness: a phenomenologic study. *Oncol Nurs Forum* 2003; **30**: 593–8. Available at: http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=10057800&site=ehost-live.
47. Stoll RI. The essence of spirituality. In: Carson VB, ed. *Spiritual dimensions of nursing practice.* Philadelphia: W. B. Saunders, 1989: 4–23.
48. Ai AL, Dunkle RE, Peterson C, Bolling SF. The role of private prayer in psychological recovery among midlife and aged patients following cardiac surgery. *Gerontologist* 1998; **38**: 591–601.
49. Matthews DA, McCullough ME, Larson DB, Koenig HG, Swyers JP, Milano MG. Religious commitment and health status: a review of the research and implications for family medicine. *Arch Fam Med* 1998; **7**: 118–24.
50. Taylor EJ, Outlaw FH. Use of prayer among persons with cancer. *Holist Nurs Pract* 2002; **16**: 46–60.
51. Ayele H, Mulligan T, Gheorghiu S, Reyes-Ortiz C. Religious activity improves life satisfaction in some physicians and older patients. *J Am Geriatr Soc* 1999; **47**: 453–5.
52. Koenig HG, Kvale JN, Ferrel C. Religion and well-being in later life. *Gerontologist* 1988; **28**: 18–28.
53. Levin JS, Taylor RJ. Gender and age differences in religiosity among black Americans. *Gerontologist* 1993; **33**: 16–23.
54. Princeton Religion Research Center. Americans remains very religious, but not necessarily in conventional ways. 2000; **22**: 2–3.
55. Solomon RC. *Spirituality for the skeptic.* New York: Oxford University Press, 2002.
56. Ang DC, Ibrahim SA, Burant CJ, Siminoff LA, Kent Kwoh C. Ethnic differences in the perception of prayer and consideration of joint arthroplasty. *Med Care* 2002; **40**: 471–6.
57. Krause NM. Assessing the relationships among prayer expectancies, race, and self-esteem in late life. *J Sci Stud Relig* 2004; **43**: 395–408.
58. Sodestrom KE, Martinson IM. Patients' spiritual coping strategies: a study of nurse and patient perspectives. *Oncol Nurs Forum* 1987; **14**: 41–46.
59. Ai AL, Peterson C, Bolling SF, Koenig H. Private prayer and optimism in middle-aged and older patients awaiting cardiac surgery. *Gerontologist* 2002; **42**: 70–81.
60. Meisenhelder JB, Chandler EN. Spirituality and health outcomes in the elderly. *J Relig Health* 2002; **41**: 243–52.
61. Harris-Robinson M. The use of spiritual-focused coping among working-class black women. *J Rel Spiritual Social Work* 2006; **25**: 77–90. Available at: http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=23775527&site=ehost-live.
62. Berrenberg JL. The belief in personal control scale: a measure of God-mediated and exaggerated control. *J Pers Assess* 1987; **51**: 194. Available at: http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=6378801&site=ehost-live.
63. Strawbridge WJ, Shema SJ, Cohen RD, Kaplan GA. Religious attendance increases survival by improving and maintaining good health behaviors, mental health, and social relationships. *Ann Behav Med* 2001; **23**: 68–74.
64. Benjamins MR, Brown C. Religion and preventative health care utilization among the elderly. *Soc Sci Med* 2004; **58**: 109–18.
65. Miller MA. Culture, spirituality, and women's health. *J Obstet Gynecol Neonatal Nurs* 1995; **24**: 257–63.