Breast cancer is a significant health problem among African American women. Since the church is a viable health education venue for this population, spiritual cancer communication is a timely area of study to promote cancer education. In partnership with an African American church, we developed an educational booklet on breast cancer early detection from within a spiritual framework. Working with an advisory panel of women from the church, we facilitated the development of the booklet content and design. Panel members selected the spiritual themes and scripture used to frame the early detection messages, and they wrote messages to be included in the booklet. Meetings with focus groups were conducted to generate feedback on the booklet design and content.

Overall feedback from the advisory panel and three focus groups regarding this level 4 spiritually based cancer communication intervention for African American women was generally consistent, showing strong preferences for design and content. We believe that this spiritually based approach may be one way to make cancer communication more culturally appropriate for African American women.

African American Women and Breast Cancer

Breast cancer is an important area in which to target efforts toward eliminating health disparities. Although white women have higher breast cancer incidence rates compared with African American women (113.2 vs 99.3 per 100,000 women, respectively), the mortality rate for African American women is higher than that for white women (31.4 vs 25.7 per 100,000 women, respectively). African American women are more likely than white women to die of breast cancer.
because, on the average, their cancer is diagnosed at a later stage. The difference between these two groups may be the result of differential access to and use of screening such as mammography.

Spirituality/Religiosity Among African Americans

Spirituality/religiosity plays an important role in the lives and culture of many African Americans. African Americans, especially women and of older age, are more religiously involved than other groups are. Church attendance provides African Americans with social support, and prayer has been shown to improve ability to cope with stressful life events.

Although acknowledging the current scholarly debate concerning definitions of "religiosity" and "spirituality," the present project uses the term spirituality except when summarizing the work of others who use religiosity. We recognize that many people impart "special meaning in the contrast between spirituality and religion" and that people may perceive themselves as spiritual, religious, both, or neither. As a working definition, we use the term religiosity to refer to organized worship involving services and structured activities, and we use spirituality to refer to a broader search for meaning and purpose in life, involving a higher power, that may or may not involve religiosity.

Church-Based Health Interventions for African Americans

A number of researchers have developed and tested the effectiveness of church-based interventions for breast cancer screening and cervical cancer screening for African American women. However, fewer have developed and tested the effectiveness of interventions that are actually spiritual in nature, through message framing or content. Rather than presenting a secular health message in a spiritual setting such as a church, a spiritually based intervention may result in a more effective communication. Because cancer is a significant health problem among African Americans and the church has already been shown to be a viable health education venue, spiritual cancer communication is a timely area of study.

Levels of Religious Orientation Among Church-Based Health Interventions

Church-based interventions may be characterized by a typology of religious orientation. Level 1 interventions use the church as a venue for recruitment, and message content is secular. In level 2, secular interventions are implemented through the church by healthcare professionals. In level 3, secular interventions are implemented through the church but by lay individuals. Members of the church may be selected to deliver the intervention, which may make participation more attractive or palatable for parishioners. Finally, level 4 interventions include religious or spiritual content in the intervention. This may include the use of relevant scripture passages or religious themes such as taking care of the body, which is a gift from God, or supporting each other’s health through the fellowship of the church. It is these level 4 interventions that are largely absent in the church-based health education literature. Winett and colleagues view this level as a necessary but not sufficient intervention approach for continued behavior change, and they call for more randomized trials to test the effectiveness of level 4 interventions. These researchers also cite the need for more theory-based, targeted interventions made for smaller social units such as church congregations.

Several interventions could be characterized as level 4 because they include spiritual content. One such program combined bible study with cardiovascular risk messages for African Americans. This program was developed in conjunction with members of the local faith community. In another intervention for African Americans, smoking cessation content was presented through sermons on smoking, testimony in church services, and a spiritual stop-smoking booklet with a day-by-day message. A spiritual supplement to a standard behavioral diet and physical activity intervention for African American women was used by another group of investigators. The supplement included scripture-enriched health messages, group prayer, aerobics to gospel music, education session reminders in church bulletins, and a program newsletter from the pastor.

Rationale for Spiritual Cancer Communication

An elaboration likelihood model by Petty and Cacioppo presents a theoretical rationale for providing a spiritual cancer communication intervention to spiritual individuals. According to the model, individuals are more likely to process information actively and thoughtfully (central route processing) if they perceive it to be personally relevant. Studies have shown that messages processed in this way (ie,"elaborated" on) tend to be retained for a longer period of time and are more likely to lead to permanent change than messages that do not stimulate elaboration.
Empirical studies have supported the elaboration likelihood model explanation of personal relevance leading to more elaboration and thus effective health communication. Presenting a spiritual message to a spiritual individual should result in increased perceived relevance, thus stimulating cognitive elaboration in response to the message and resulting in persuasion (attitude and finally behavior change). In the present context, we might expect that a religious African American woman who received a spiritually based breast cancer early detection message might generate more positive thoughts (cognitive responses) in response to the materials, relating them to her life and agreeing with the spiritual message. In contrast, a religious African American woman who received the secular breast health message might not relate to it or elaborate on it cognitively because there may be less of a connection for her to agree with. This latter approach would likely be viewed as less personally relevant than the former. The secular approach may even be met with counterargument or negative cognitive responses.

Harris and colleagues cite the need for increased development and testing the effectiveness of interventions that take a spiritual or religious approach. In addition, the meaning of health messages is dependent on the context (eg, social, economic, spiritual) through which the individual receives the message. Because spirituality is an important factor in African American culture, a spiritual cancer communication intervention should increase the cultural relevance of the intervention.

In addition, meaningful relationships have been discovered between spirituality, spiritual health locus of control (ie, the belief that health is controlled by a higher spiritual power), and breast cancer beliefs and screening. Spiritual beliefs and behaviors, such as close personal relationship with God and church attendance, were positively associated with mammography knowledge among African American women. In the same sample, spiritual health locus of control beliefs were associated with perceived benefits of and barriers to mammography. By providing an effective means from which to frame breast cancer communication interventions targeted to spiritual African American women, these beliefs could help eliminate breast cancer disparities.

The Present Project

The purpose of this discussion is to describe the development of a level 4 spiritually based breast cancer educational booklet in partnership with an African American church. Members of the project team acted as facilitators of the booklet development and encouraged representatives of the church to direct the content and design, particularly the spiritual aspects of this content and design. We followed a process of forming and meeting with an advisory panel of women from the church who developed and refined content and design. Then focus groups were used to further refine the booklet design and content.

Methods

The overall structure of the project is described in the Figure. The project began by identifying and partnering with an African American church, and identifying an advisory panel of women from the church to inform all aspects of the project. Content was then developed and ideas for graphic design generated across a series of meetings with this advisory panel.
Messages were written based on these ideas, and graphic design prototypes were developed. Focus groups were held to obtain feedback on the graphic design prototypes and spiritual themes to be used in the booklet. Recommendations for changes based on this formative research were discussed with the advisory panel, and final decisions were made. Revisions to the booklet resulted in the final product, which will be tested for communication effectiveness in a randomized, controlled trial in year 2 of the project.

This intervention was developed in an African Methodist Episcopal Zion (AME Zion) Church in urban St. Louis, Missouri. The church, founded in 1864, is a congregation made up of nearly 600 members, 65% of whom are women and 40% of whom are 40 years of age or over.

Advisory Panel

The church pastor contacted six women from the church who he believed would be interested in contributing to the project. Two of the six were breast cancer survivors, and three others had direct experience working in healthcare settings. The group had an introductory meeting at the church where the principal investigator described the project, general development process, and timeline. The purpose of this panel was to drive the development of the intervention materials (in particular the spiritual content) and monitor and contribute to all other aspects of the project. The spiritually based intervention content development occurred across seven meetings at the church, where spirituality and health, spiritual health locus of control (belief in control of health by a higher power, eg, God), breast cancer, and the African American community were discussed. This panel also provided input on the appearance (eg, colors, fonts, graphics) of the template onto which the breast cancer messages for each of the intervention types would be printed. Advisory panel members received a payment of $100.

Content Development

The booklet content was developed in a series of meetings with the advisory panel. Core breast health content was adapted from a demographically targeted booklet (for African American women). In the first meeting, the principal investigator described the purpose of the project: to develop a spiritually based booklet educating African American women about breast cancer early detection and encouraging mammography screening. The advisory panel expressed opinions about content that should be included in the booklet. These inclusions were driven by their experiences in the African American community and what is generally lacking or problematic with regard to breast cancer education available in this community. The panel discussed areas including breast health, spiritual concepts, a generational theme, and aspects of booklet design.

Breast Health: The advisory panel made several recommendations they believed were important to include regarding breast health content. These are summarized in the Table.

| Spiritual Concepts: A number of spiritual concepts spontaneously emerged from the advisory panel discussions. The types of ideas and constructs discussed in the booklet were of both a religious nature and a more broadly spiritual nature. Integration of spiritual themes and concepts is characteristic of a level 4 intervention, proposed to be an effective approach for behavior change. One idea was that “we should not be preachy in the booklet” and should use a concept of God that is universal. There was a purposeful decision among the advisory panel members to make the booklet content not specific to the AME Zion faith but to all Christian faiths. Other spiritual concepts included knowing that “God will take care of us” but that “you have to help yourself;” and that “God enables doctors to heal us.” The body was viewed as being a temple of God and a gift to be taken care of and respected.

Breast Health Content Recommendations From the Advisory Panel

<table>
<thead>
<tr>
<th>Facts to include for the reader:</th>
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<tbody>
<tr>
<td>Women should perform monthly breast self-examination.</td>
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<tr>
<td>Women should be aware of their family history of breast cancer.</td>
</tr>
<tr>
<td>Pain associated with a mammogram is more like a discomfort, and it lasts only a short time. The result outweighs the discomfort.</td>
</tr>
<tr>
<td>Women should go to the doctor for general checkups or well-woman examinations.</td>
</tr>
<tr>
<td>A mammography facility that is certified by the Food and Drug Administration is preferred.</td>
</tr>
<tr>
<td>Most breast lumps are not cancerous.</td>
</tr>
<tr>
<td>Women age 40 and over need to have annual mammograms for the rest of their lives, not just once.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional issues:</th>
</tr>
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<tbody>
<tr>
<td>Include women under age 40 in the project because African American women are often affected by breast cancer at an earlier age.</td>
</tr>
<tr>
<td>Address and refute the reasons why women do not get mammograms: lack of time, cost, discomfort, possibility of finding breast cancer, embarrassment, care of oneself (“If you don’t take care of yourself and keep yourself in optimum health, you can’t take care of anyone else.”).</td>
</tr>
<tr>
<td>Resources for low-cost mammograms should be included for working uninsured women.</td>
</tr>
<tr>
<td>Information on Medicare’s payment for mammograms should be provided.</td>
</tr>
<tr>
<td>Address the worry of finding breast cancer: “What is scary is when you don’t have the knowledge. Education and knowledge reduce fear.”</td>
</tr>
</tbody>
</table>
Another spiritual idea that emerged was the concept that faith can be used to get through the mammogram experience itself and to ease any anxiety that a woman may feel. The mammogram was seen as “going easier” when one is calmed by their faith. Another spiritual idea was that a woman should “use the free will and good sense God gave you” and get a mammogram. The notion of a division of responsibility was raised, indicating that “we must do our part, and God will do His.”

Scripture was also cited as important to include in the booklet. Particular scriptural passages recommended include (from the King James version of Bible): First Corinthians, Chapter 6, Verse 19 (body is a temple of God), Psalm 100, Verse 3 (we are the sheep of His pasture), Proverbs 31st Chapter, Verse 17 (knowledge is power; strength), and Proverbs 24, Verse 4 (knowledge is power, riches). The pastor recommended Psalm 46, Verse 10 (God is our refuge and strength).

Generational Theme: Another content area derived from the advisory panel, in addition to the spiritual themes, was a generational theme. This emerged from the idea that it is important to get women started early in thinking about breast health, and “getting it in their mindset.” Daughters see their mothers making mammograms a priority and may be more likely to do so when the time comes for them. The idea was expressed that positive role modeling can go from the older to the younger generations as well as the younger to the older. For example, a mother asks her mother if she is getting a mammogram every year and reminds her to do so. This generational theme underlies the entire booklet. The idea of African American women supporting each other is not new, and the generational theme can be readily applied to breast health because of the different age-related recommendations.

Message Writing: Breast health content was adapted from a demographically targeted booklet for African American women.27 This content was used as the core breast health information, and the spiritual content and themes were used to frame or support this core content. Writing the spiritually framed messages began by identifying the spiritual concepts and ideas from the meetings of the advisory panel members. They were interested in further developing their ideas and brought message drafts to share at the subsequent meetings. The members provided each other with feedback on their messages.

Graphic Design

In the fifth meeting of the advisory panel, we began to discuss the graphical appearance of the booklet. Two graphic designers from the project team attend-
hour and a half. Each member of the focus groups provided written informed consent to participate and received $20. These groups were moderated and audio recorded by the research staff members.

**Areas of Discussion:** The focus group interview guide covered several areas. After an introduction to the project and informed consent, the moderator asked broadly if there was any connection between faith and health. This resulted in focus group participants telling personal stories of either their own or a loved one’s illness and how religion or faith helped them through the experience, whether it was recovery or death. The graphic designers then showed participants five prototype booklets and asked for reactions to the booklet covers and inside layouts. Elements specifically probed included the extent to which the cover caught their attention, colors used, size of the booklet, layout of the inside, density of the text, font size and style, and graphic elements. In addition, the spiritual themes to be used in the booklet were discussed. Finally, participants completed a brief questionnaire assessing demographic information.

**Participant Characteristics:** Three focus group meetings were held. In the first group (held on a Tuesday evening), six women agreed by telephone to participate and two actually attended the group (four had called the day before or the day of the group to say that they could not attend). Thus, it was decided to schedule all subsequent groups on Saturday afternoons, with the idea that perhaps weekday evenings are not convenient for participants. In the second group, 12 women agreed to participate and six attended the group (one called the day before to cancel). In the third group, 11 women agreed to participate and two attended (none called beforehand to cancel). As a whole, the women varied in age from 39 to 89, with a mean age of 59 years (standard deviation [SD] = 15.29). The mean number of years of education was 15.50 (SD = 2.01) and ranged from 12 to 18. The median annual income was in the $40,001-$50,000 bracket (range = $5,001-$10,000 to $60,001-$70,000). All were members of a church (4 Catholic, 2 Baptist, 1 Methodist, 1 African Methodist Episcopal, 1 Holiness, and 1 “Christian”).

**Findings:** In the first group, the women liked the use of warm colors of pink and peach, a border fashioned from the design of a stained glass window of the church (which was perceived as having an “African feel”), a sketch of three African American women’s faces of different generations, images of the bible and a dove, and the tri-fold (tall and thin) pamphlet size (because it “looks like information”). A recommendation was made to include contact information for breast cancer support groups. The idea of healthy body, mind, and spirit was well accepted, and the idea that the body is a temple of God was spontaneously mentioned as being relevant in this context. This reinforces the potential attractiveness of elements that integrate religiosity/spirituality into the intervention. Elements that were disliked included images of the church building (“looks like the church bulletin”) and the color blue (“too manly”). When asked whether they preferred a white or colored background to the text in the layout, they chose the colored (cream) background, citing that it was easier to read.

The second group echoed the aforementioned opinions of the first, with several exceptions. They preferred the larger booklet (8 ½” × 7”) rather than the tri-fold pamphlet style (8 ½” × 3.67”), and they recommended that the cover be laminated for durability and to signify that the booklet was “meant to be kept.”

There were several unique contributions of the third focus group. They preferred the tri-fold booklet rather than the larger size. Participants liked an image of a tree that, to one participant, represented life and family. One booklet had tones of gray and an ethereal look, which was perceived as looking “morbid” like a “graveyard.” Finally, one woman made the suggestion to have the resource telephone numbers on the back cover be detachable so that they could be cut out and posted on a refrigerator or inserted into a woman’s personal telephone book.

**Data Analysis and Booklet Revision:** After each focus group, staff members met to debrief and discuss themes and patterns that emerged. At the completion of all the groups, the findings were examined by study staff and interpreted. In general, if more than one woman across the three groups mentioned a particular comment or if there was consensus among focus group members, a revision (or decision to retain a particular element) was made based on the comments. This resulted in the decisions to eliminate images of the church building in favor of the sketches and pictures of African American women, to use pinks and other warm colors rather than blues, grays, or cool tones, to retain the image of a tree and a colorful border, and to use a cream-colored background behind the messages for easy reading. In addition, the theme of body, mind, and spirit, breast cancer support group contact information, and all scriptural pieces were retained in the booklet content.

**Conclusions**

This discussion describes the development of a level 4th spiritually based cancer communication intervention for African American women. The overall feedback from the advisory panel and focus groups was
generally consistent. Participants showed a strong preference for multicolor designs using bright, bold colors as opposed to muted or conservative colors. Curvilinear shapes and text placement received a positive response for being visually interesting as well as embodying a sense of femininity. Images of African American women, particularly realistic representations depicting women of varying age groups, were also largely noted as having a personal appeal to the participants.

In the second year of this project, the spiritually based booklet will be tested for communication effectiveness against a standard (demographically based) booklet of the same content. This will take place through use of a randomized trial within the church in which the booklet was developed. Outcomes of interest include cognitive responses to the intervention, intermediate outcomes (e.g., attention, liking, learning), and mammography pre-behavioral outcomes (e.g., stage of readiness, breast cancer knowledge, and perceived barriers to and benefits of mammography). The findings of this trial will inform future research and practice in developing optimal communication approaches for church-based education on breast cancer early detection for African American women. According to a typology of religious orientation, religiosity may be integrated into these interventions on a number of levels — from not at all to highly integrated. The latter, termed a level 4 intervention, is proposed to be more effective than the basic levels (1 to 3) in which religiosity is not integrated into the actual intervention. If found to be effective for these outcomes, the spiritually based cancer communication intervention could be further developed (e.g., a series of booklets and/or educational sessions) and tested in a longer-term church-based trial with the outcome of mammography utilization. Eventually, the approach may be extended and applied to other types of cancer prevention or detection behaviors or to other spiritual populations.

There are inherent limitations in this pilot project. First, because the booklet was developed in partnership with only one church congregation, it is unknown at this point whether the booklet would be acceptable and/or effective within other African American churches and other denominations. However, because the focus group testing occurred with African American women outside of this particular church and also because the intent was not to be specific to the AME Zion faith or to that specific congregation, there may indeed be generalizability. Furthermore, the spiritual concepts used in the booklet are not unique to the AME Zion faith or to the specific congregation. Many of the concepts have been expressed spontaneously in a qualitative project examining spirituality and health beliefs in seven African American churches of five different denominations. However, the focus group findings regarding graphic design of the booklet may or may not generalize to women of other ages and socioeconomic strata. Further testing would be warranted in order to substantiate such a claim.

Second, even if the spiritually based booklet is successful in terms of the cognitive and attitudinal outcomes of interest in this pilot study, it will not be known whether such an approach would be effective for stimulating mammography utilization in this population. If the spiritually based booklet is found to be effective for the pilot study outcomes, the investigators will seek to expand the approach to a more intensive intervention aimed at this outcome.

This project provides an example of a partnership between an African American church and a university to develop a spiritually based breast cancer educational booklet. It provides a model that may be used by other investigators as well as ideas for how spirituality may be integrated into health communication interventions. Although there may be limited generalizability of the focus group findings, it is the process that others might find useful for the development of similar interventions. Particularly when addressing something so deeply a part of culture as spirituality, it is critical to involve the target community and conduct the appropriate formative research.

References


