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# The role of leadership support in a church-based cancer education implementation study

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# Abstract

Leadership plays a role in the success of an organization's initiatives. We examined church leaders' support—as perceived by lay community health advisor (CHA) interventionists —and implementation outcomes in a cancer early detection trial. CHAs perceived that their pastors: helped promote the intervention (M=3.1/4, SD=1.2) and attended about half of the workshops (M=1.6/3, SD=1.2). CHAs used marginally more techniques to recruit members when they perceived pastors were engaged in promoting the program ( $r_s$ =.44, p = .08). Pastor attendance was positively associated with member enrollment ( $r_s$ =.50, p < .05). Pastor support may be related to receptivity of both CHAs and congregants to engage in church health promotion.

## Keywords

church-based health promotion; community health advisors; cancer screening; leadership

# INTRODUCTION

In any organization, leadership plays a critical role in the degree of success of its initiatives. Leadership can be defined as an individual or group of individuals who direct(s) an organization, identifies the strengths and needs of that organization, and proactively works to determine the activities to sustain and grow it (Stogdill, 1982). Due to these attributes, leaders are often viewed as the gatekeepers who impact the implementation of programs in the organizations in which they serve. Organizational champions, who may be formal or informal leaders, also play a role as they actively work to identify new activities or

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innovations to benefit the group (Stogdill, 1982). Within a faith-based organization, the leadership and direction of the pastor uniquely affects the types of programs that exist (Taylor, Ellison, Chatters, Levine, & Lincoln, 2000). The pastor's role to act as a facilitator of health-related behavioral and social change may impact others' willingness to be involved in health-related programs. Due to these factors, several faith-based health promotion interventions discuss the importance of pastor acceptance and have incorporated them into the development and refinement of their interventions (Yanek, Becker, Moy, Gittelsohn, & Koffman, 2001; Campbell et al., 2007; Webb, Bopp, & Fallon, 2013; Clay et al., 2005; Sternberg, Munschauer, Carrow, & Sternberg, 2007).

#### **Role of Faith-based Organizations in Health Promotion**

Churches are a type of faith-based organization that has been identified as an effective setting to promote health and provide access to health care, in particular for medically underserved populations including the African American community (DeHaven, Hunter, Wilder, Walton, & Berry, 2004; Campbell et al., 2007). The relationship between religion and health (Ellison & Levin, 1998; Koenig, 2012) provides one rationale for considering the church environment an important setting to promote health and provide access to care. DeHaven (2004) and Campbell and colleagues (2007) conducted literature reviews of health programs in faith-based and church-based settings. The data suggest that programs in these environments create positive effects and behavioral change across a number of health topics (e.g. weight loss, blood pressure levels, mammography adherence; DeHaven et al., 2004; Campbell et al., 2007).

#### **Role of the Church Leader in Health Promotion Interventions**

Church-based health promotion studies often acknowledge the importance of church leaders and some have documented the influence of the pastor on health promotion behaviors (Baruth, Bopp, Webb, & Peterson, 2015; Bopp, Baruth, Peterson, & Webb, 2013; Campbell et al, 2007). However, there is limited literature systematically evaluating the pastor's support in relation to the success of health promotion interventions (Wilcox et al., 2010). Wilcox and colleagues (2007) used a community-based participatory research approach to increase physical activity among African Methodist Episcopal church members, and results indicated that 79% of the participants reported pastor support. Furthermore, a greater level of pastor support was significantly associated with higher rates of physical activity among program participants (Wilcox et al., 2007). The North Carolina Black Churches United for Better Health project found that 'impactful' church activities (cited by more than 50% of participants), including pastor sermons which promoted the project, were significantly related to greater fruit and vegetable consumption (Campbell et al., 2000). Similarly, Baruth and colleagues (2011) examined the baseline data from the Faith, Activity, and Nutrition (FAN) program and identified a significant relationship between perceived church support (e.g., overall support, written informational, spoken informational, instrumental) by church members and higher fruit and vegetable intake as well as fiber/whole grain consumption. Recently, Baruth, Wilcox, and Saunders (2013) sought to address the gap in the literature by examining how pastor support influences participant recruitment and retention, program implementation, and intervention outcomes. They found that pastor support-related variables (e.g., pastor interest/excitement in intervention, participation in intervention activities) were

positively associated with participant recruitment and implementation components of a health promotion intervention in African American churches.

Other studies acknowledge the influence of the church leader. Williams and colleagues (2012) examined similarities and differences of perceptions of the church environment between church leaders and their church members. Interviews were conducted with pastors and members of rural churches. A significant positive association was found demonstrating that as church leaders' beliefs regarding the appropriateness of talking about health topics increased, the presence of these types of messages in the church increased as reported by church members. There was also a positive significant relationship detected between church leaders' perceptions of congregants' receptivity to health messages and the presence of health messages and health programs in the church. Baruth and colleagues (2015) conducted 24 semi-structured interviews among faith leaders, and the majority believed they had influence over their church members related to health and wellness, primarily through increasing awareness.

#### **Present Study**

While many studies have measured church leader influence as well as support and its association with health behaviors, few studies have evaluated their impact on implementation outcomes. The present study sought to build upon the work conducted by Baruth, Wilcox, and Saunders (2013) to determine if church leader support was associated with the outcomes of a health promotion program. The current study examined leadership/ pastor support from the interventionist perspective [lay peer community health advisors (CHAs)] which we relate to implementation outcomes of Project HEAL (*Health through Early Awareness and Learning*), a cancer early detection implementation trial conducted in 15 African American churches. Implementation outcomes included CHA promotion of the intervention, church member participation in the intervention, and initial sustainability of Project HEAL.

#### METHODOLOGY

#### Overview

This is a secondary data analysis of African American churches participating in Project HEAL—a cancer early detection implementation trial conducted in Prince George's County, Maryland. Project HEAL aimed to evaluate two strategies for training lay peer CHAs, with little or no previous health background, to implement an evidence-based cancer early detection intervention. In this cluster randomized study, churches were assigned to one of two conditions: Traditional or Technology. In the 'Traditional' group, CHAs were trained by HEAL staff to conduct an educational 3-workshop series on breast, prostate and colorectal cancer early detection. CHAs in the 'Technology' churches received the same training as the Traditional group but completed their training and certification independently using a self-paced Web-based portal (Santos et al., 2014). CHAs in both conditions became certified prior to implementing the workshops by passing a knowledge examination. The Project HEAL protocol was approved by the University of Maryland, College Park Institutional

Review Board (#10-0691). The full study procedures are described in more detail elsewhere (Holt et al., 2014).

#### Participants

The pastor in each church identified 1 man and 1 woman to serve as that church's CHAs. Inclusion criteria were (a) older than 21 years, (b) self-identified as African American, (c) regularly attended the enrolled church, (d) able to complete Project HEAL training, (e) had regular access to the Internet and felt comfortable completing Web-based training activities, (f) able to recruit 30 participants for the workshop series, and (g) able to lead the 3-part workshop series. Of the 36 CHAs initially recruited following church randomization, 8 CHAs dropped out of Project HEAL. Two CHAs were pastors and thus were excluded from the current analysis due to the focus on pastor support. Twenty-six CHAs were included in this analysis.

#### **Data Sources**

Pastors or another nominated key informant completed a survey after the church conducted the 3-part workshop series which collected background characteristics on the church leader. CHAs completed (a) a post-workshop survey after they delivered the 3-part workshop series, which evaluated their experiences in leading the workshops and (b) a 12-month sustainability survey that assessed ongoing health activities and the CHAs' perceived participation from their pastors.

**Pastor Demographic Information**—Background characteristics of the pastors included: employment, education, and number of years serving as the leader of the church.

#### **Pastor Support**

**Pastor Promotion**—CHAs were asked to indicate how their pastor or church leadership promoted the Project HEAL intervention workshops including: mentioned workshops in sermons, mentioned workshops during announcements, included workshop announcements in church bulletins, invited members to attend, attended the workshops themselves, and other. CHAs could indicate all that applied, and each item was coded as 0 = no and 1 = yes. An exploratory factor analysis was conducted on the five pastor promotion items (excluding the 'other' category) and it was determined that all items except mentioning in sermons loaded onto one component (Eigenvalue = 2.2). The mentioning in sermons item was analyzed separately. The pastors' actions to mention the workshops in announcements and in the bulletin, inviting members to attend, and participating in the workshops were summed to create the pastor promotion index (Mean = 3.1, SD = 1.2, Range = 0–4). Cronbach's alpha illustrates this index has acceptable internal reliability ( $\alpha = .72$ ).

**Pastor Attendance**—Pastor attendance was captured by asking CHAs, '*How many of the series of three Project HEAL workshops did Pastor attend?*'. Response options included 0–3 workshops or cannot recall.

#### Implementation Outcomes

The Project HEAL evaluation was based on the RE-AIM Framework (Glasgow, 1999). Selected RE-AIM Framework components were utilized in the current analysis.

**Reach**—Church member participation was assessed by the percent of eligible congregation members who enrolled in the project.

**Implementation**—Implementation was operationalized as intervention fidelity of components of Project HEAL through CHAs use of methods (i.e., emails, text messages, announcements) to recruit members to the workshops and their adherence to workshop protocol (e.g., number of days to complete the workshop series; number of workshops attended by church members).

**Maintenance**—The extent to which Project HEAL was sustained over time was assessed through the 12-month CHA sustainability surveys which asked, *'What health topics have been discussed in your church since the 3 Project HEAL workshops.'* Response options included: Heart disease (including high blood pressure), Asthma, Stroke, Aging, Cancer, Obesity/Overweight, HIV/AIDS, Children's Health, Weight Loss, Diabetes, Stress Reduction, Physical Activity, Walking, Healthy Diet, Smoking and Other. CHAs selected all that applied, and each item was coded as 0 = no and 1 = yes.

# DATA ANALYSIS

Data were entered into SPSS Version 23.0 for analysis. Descriptive statistics were computed to examine distributions of all variables. Spearman Rho correlation coefficients were used to determine the level of association between the mean scores for church leaders' promotion and attendance as perceived by the CHAs and the implementation outcomes: *Reach, Implementation and Maintenance.* Due to the modest sample size and the goal of this paper, study group differences were not analyzed.

# RESULTS

#### **Descriptive Information**

Church leader demographics are presented in Table 1. The majority of pastors did not have employment outside of the church (83.3%) and served in this role for at least 10 years (50%). A little more than half held a master's degree (54.5%) and one third held a doctoral degree (27.2%).

#### **Pastor Promotion & Attendance**

Table 2 presents the descriptives for the pastor promotion and attendance variables. A majority of CHAs reported that their pastors mentioned the workshops in sermons (68.2%), in the announcements (86.4%), and in the church bulletin (77.3%). The majority of CHAs reported that their pastors invited church members to attend the workshops (86.4%) and 59.1% of CHAs reported that their pastors attended the workshops. Other supportive actions by the pastors were reported by the CHAs (40.9%) in an open-ended item which included

the following types of responses: sending emails about the workshops, calling members to remind them about the workshops, passing out promotional flyers, and posting about the project to Facebook. According to CHAs, pastors attended an average of 1.6 workshops (SD = 1.2; Median = 2) of the 3-workshop series.

#### Associations Between Pastor Support & Implementation Outcomes

Associations between pastor support and the implementation outcomes are presented in Table 3. Pastor promotion of the program was marginally and positively associated with CHAs use of techniques to recruit members to the workshops ( $r_s = .44$ , p = .08). Pastor attendance at the workshops was positively associated with church member overall study enrollment ( $r_s = .50$ , p < .05). The correlation between pastor support with the other implementation outcomes [time to complete workshop series (in days), the number of workshops attended by church members, and additional health topics covered at the church] were not statistically significant.

# DISCUSSION

We examined the relationship between pastor support, as perceived by the lay peer CHA interventionists and implementation outcomes in a cancer early detection trial in African American churches. It is acknowledged that leadership plays an important role in the success of programs, including within faith-based organizations (Campbell et al., 2007), but little research has assessed the impact of leadership support on health promotion program outcomes. These findings suggest perceived pastor support may be associated with lay health advisors as well as congregants' engagement in a health promotion program. However, the current data suggest that there are limitations on the power of pastor support, in particular on the more distal study outcomes.

Pastor attendance at the workshops was positively associated with church member overall enrollment in Project HEAL. This finding suggests that perceived pastor involvement may be associated with church member involvement which supports the anecdotal evidence that a supportive pastor relates to the success of health promotion initiatives (Campbell et al., 2007). Our study measured support not only through endorsement (pastor promotion), but also the pastor's attendance at the workshops. The positive association detected suggests that the pastor's active participation in the intervention may also be important in the recruitment and initiation of a health program.

A marginally significant association was detected between pastor support and CHAs' use of recruitment methods. When the CHAs perceived their pastors to be more engaged in promoting the program, CHAs reported use of more techniques to recruit members to the workshops. While the association between these two variables was strong, this study may not have been adequately powered to detect statistical significance. It is possible with a larger sample size this correlation would be statistically significant. The remaining non-significant associations suggest that CHAs' perceptions of their pastor's support may not influence the adherence to and sustainability of the program. One notion to consider is that perceived pastor support is important when starting a health promotion initiative, but may not play a significant role in the implementation of that program. The importance of

acceptance and endorsement of programs is consistent with previous church-based studies (Bopp, Baruth, Peterson, & Webb, 2013; Campbell et al., 2007). Once a program is initially accepted by the church leader, the champions of that program (i.e., CHAs) are then the individuals who play an integral role in carrying out and sustaining these activities.

#### Strengths

There are key strengths of this secondary analysis. First, this study includes the use of multiple data sources from CHAs' self-report surveys and the pastor/key information surveys. Second, multiple implementation outcomes were analyzed that align with components of the RE-AIM framework. A limitation of self-report is the reliance upon the respondents to give honest, accurate answers. The present study did not rely upon self-report to measure pastors' support, but instead we received ratings of his/her support from others within the organization which may serve to lessen bias. Finally, systematic approaches of measuring pastor support are needed, and this study utilized multiple ratings of pastor support including the creation of a composite score of pastor promotion items.

#### Limitations

There are limitations that must be acknowledged in the interpretation of the findings. This study included 26 CHAs from African American churches in Prince George's County, Maryland. The small sample size limited the type of analyses conducted in this study and may have contributed to our inability to fully uncover statistical significance. Additionally, the findings may not be generalizable to church leaders in other areas. The pastor promotion items measured were not fully sensitive. While CHAs were asked how their pastor or church leadership promoted the Project HEAL intervention workshops (i.e., mentioned workshops in sermons), they did not capture frequency. This study assessed the CHAs' perceptions of pastor support rather than perspectives of the actual pastor. While future studies should aim to systematically measure direct pastor support, it may be important to measure multiple perspectives especially those who are carrying out the health promotion programs (i.e., CHAs). Understanding their beliefs about the degree of support received from their leader could play a role in the program outcomes. Select RE-AIM components were measured in this analysis. While we did not measure efficacy outcomes, we did relate pastor support to key items for evaluating the success of a program including reach, intervention fidelity, and maintenance. We did not include 'adoption', because all churches in Project HEAL adopted the intervention.

#### Practice Implications

These findings suggest that leadership support is associated with select implementation components, including reach. Future studies should measure pastor support throughout the lifecycle of a study to understand this influence on the initiation, reach, efficacy, adoption, implementation, and maintenance of church-based programs. Additional study is needed to measure pastor support from multiple perspectives including the pastor directly. Validated assessments to measure pastor support are also needed.

# CONCLUSION

This secondary data analysis sought to relate pastor support to outcomes of an implementation trial. This study extends previous research in this area and underscores the need to continue to study the relationship between leadership involvement and evidence-based health promotion programs (Guerrero, Padwa, Fenwick, Harris, & Aarons, 2016). It is well-established the church is an effective setting in which to implement health promotion activities, particularly within underserved communities. It is important to gather more information to understand how these programs get adopted and are sustained in real-world settings. Determining individual, organizational, and policy level factors that influence the program outcomes is needed. This study demonstrates the importance of looking at church leadership in understanding its role in implementation outcomes of cancer educations programs in African American churches.

#### Ethical approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

#### Informed consent

Informed consent was obtained from all individual participants included in the study. This work was approved by the University of Maryland Institutional Review Board (#10-0691).

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# Table 1

# Church Leader Demographic Information

Characteristics	Overall (N=14) % (N)
Does pastor have employment outside serving as Pastor of church?	
Yes	16.7 (2)
No	83.3 (10)
Pastor Education	
Some College	18.2 (2)
Master's Degree	54.5 (6)
Doctoral Degree	27.2 (3)
How long has the pastor been in place at your church?	
< 5 years	30.0 (6)
6 to 10 years	20.0 (4)
11 to 20 years	30.0 (6)
> 20 years	20.0 (4)

#### Table 2

# CHA's Perceptions of Church Leader Support

Pastor Support	Overall (N=26) <sup>a</sup> % (N)
What actions did the pastor or church leadership take in promoting the HEAL workshops?	/0 (11)
Mentioned workshops in sermons	68.2 (15)
Mentioned workshops during announcements	86.4 (19)
Included workshop announcements in church bulletins	77.3 (17)
Invited members to attend	86.4 (19)
Attended the workshops	59.1 (13)
Other	40.9 (9)
Pastor Promotion Index	
Mean (SD)	3.16 (1.17)
Median	4.0
Range	0-4
How many of the series of three Project HEAL workshops did pastor attend?	
0	24.9 (6)
1	16.7 (4)
2	16.7 (4)
3	41.7 (10)
Pastor Attendance Index	
Mean (SD)	1.64 (1.26)
Median	2.0
Range	0–3

#### Table 3

#### Associations Between Church Leader Support and Implementation Outcomes

Implementation Outcomes	Pastor Promotion	Pastor Attendance
Church Member Participation		
% members enrolled/eligible	.124	.505 *
% members per church enrolled at workshop 1	.055	.002
CHAs use of tools (i.e., emails, text messages, announcements) to recruit members to the workshops	.436 <sup>a</sup>	.269
Protocol Adherence		
Time to complete workshop series (in days)	.040	080
# of sessions attended by church members	.178	.055

$$a^{a}p = .08$$

\* p<.05