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A Study of Rural Church Health Promotion Environments: Leaders' and Members' Perspectives

Randi M. Williams · Karen Glanz · Michelle C. Kegler · Ernest Davis Jr.

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Abstract This study examined the beliefs of church leaders about health and associations between these beliefs and the church health promotion environment (CHPE). Perceptions of the CHPE by leaders and members of the same churches were also compared. Interviews were conducted with pastors ($n = 40$) and members ($n = 96$) of rural churches. They were Baptist (60%), and 57.5% were predominantly White, while 42.5% were Black. Leaders' beliefs regarding talking about health topics in sermons were associated with the presence of health messages in the church. There was also a significant association between leaders' beliefs about members' receptivity to health messages and the presence of messages in the church. Leaders' and members' perceptions of the CHPE were discordant. While some

Randi M. Williams obtained her Master's of Public Health in Behavioral Sciences and Health Education from Emory University in August 2008. She presently works as a Project Coordinator for a randomized controlled trial at Georgetown University's Lombardi Comprehensive Cancer Center. She have spent the past several years working on health education projects that have included designing and testing educational materials on topics such as prostate cancer. During her time at Emory, she collaborated with the Emory Prevention Research Center to conduct a study looking at church leaders' and members' perspectives on the church health promotion environment.
Karen Glanz was formerly with the Emory Prevention Center.

R. M. Williams (✉)
Department of Oncology, Lombardi Comprehensive Cancer Center, Georgetown University Medical Center, 3300 Whitehaven Street, NW, Suite 4100, Washington, DC 20007, USA
e-mail: rmw27@georgetown.edu

K. Glanz
Schools of Medicine and Nursing, University of Pennsylvania, Philadelphia, PA, USA

M. C. Kegler
Emory Prevention Research Center, Rollins School of Public Health, Emory University, Atlanta, GA, USA

E. Davis Jr.
Bethel African Methodist Episcopal Church, Albany, GA, USA

leaders' beliefs may be related to the CHPE, other factors may explain why programs and policies exist in some churches and not others.

Keywords Church-based health promotion · Church leaders · Church members · Church environment

Introduction

Due to the importance of church in many people's lives, as well as recognized associations between religiosity (e.g., service attendance) and health outcomes (e.g., stroke, high blood pressure, cancer) (Ellison and Levin 1998), the faith-based community is seen as an effective setting in which to implement health promotion programs (Campbell et al. 1999, 2004, 2007b; Kim et al. 2006; Resnicow et al. 2000, 2001, 2002, 2004, 2005; Yanek et al. 2001). For many years, individual behavior change and associated psychosocial factors were the primary intervention targets for church-based health promotion studies (Campbell et al. 2007a). However, recently, health promoters have begun to acknowledge the role of social and physical environments by addressing multiple levels of change, including organizational policies and practices.

In organizational settings such as churches, understanding organizational change is particularly important for adoption of health promotion programs and policy changes that may ultimately improve health (McLeroy et al. 1988). Pastors, in particular, serve as gatekeepers or environmental change agents. Thus, understanding how their beliefs influence church health promotion environments is of special significance. Many church-based health promotion programs seek out the pastor for support of their interventions. These efforts acknowledge that church leaders play an influential role by endorsing health programs and services within the church (Ammerman et al. 2003; Markens et al. 2002; Taylor et al. 2000). Although a number of studies assume that church leaders play important roles in achieving acceptance of health programs, little research has looked at this influence in-depth. Further, little is known about how the church leader's background and beliefs affect the church environment. Also, to date, most of the research on church leaders has focused only on Black churches (Campbell et al. 2007a).

In addition, no studies have assessed the correspondence between church leader and church member perceptions of the church health promotion environment. As church-based interventions focus increasingly on the environment, it will be important to understand how best to measure church health promotion environments. Similar research has been conducted for other settings, most notably worksite nutrition environments (Biener et al. 1999).

The purpose of this study was to understand the relationships between church leaders' beliefs and the church health promotion environment consisting of health messages, programs, facilities, and policies. The research also examined similarities and differences in perceptions of the church environment between church leaders and church members. Specific research questions included (1) to what extent are church leaders' beliefs associated with the church health promotion environment? and (2) to what extent do church health promotion environments reported by church leaders and members correspond?

Methods

Overview

This research is an ancillary study to the Healthy Rural Communities 2 (HRC 2) study, a community-based participatory research project conducted by the Emory Prevention Research Center (EPRC) in southwest Georgia. HRC 2 explored how homes, faith organizations, and work environments support or hinder cancer prevention behaviors including healthy eating, physical activity, and tobacco use in rural populations. Eligible HRC 2 participants included in this analysis were aged 40–70, had at least two chronic disease risk factors, and lived in one of four study counties. The current study involved interviewing church leaders from churches in which HRC 2 survey respondents were members. Procedures for both the HRC 2 study and the ancillary study of church leaders were approved by the Emory University Institutional Review Board.

Church and Church Leader Selection

Churches were identified from HRC 2 participant responses to a series of church-related questions administered via telephone interview: 'How often do you attend religious services?' If at least a few times a year, 'Is there one church you usually go to?' If respondents answered yes, they were asked 'What is the name of that church, and what is the name of the town where it is located?'

Eligibility criteria for the churches included location within one of the four HRC 2 study counties (Sumter, Worth, Decatur, or Brooks County) and having at least one participant in the HRC 2 study who was a member of the church. A total of 114 churches in the four counties were identified. Because the research team sought to include the churches with the most HRC 2 respondents as members, all 33 churches with at least two study participants as members were recruited. Forty-five of the remaining churches were randomly selected for inclusion in the study, for a total of 78 eligible churches with 159 HRC 2 study participants as members.

Of the 78 eligible churches, 12 (15%) were unreachable, two (3%) had no current head of the church, and one church was not included, because the church leader indicated that it was the same church as one of the other eligible churches. Of the remaining 63 churches, 23 either declined ($n = 4$, 6%) or were unreachable after 15+ call attempts ($n = 19$, 30%). The overall response rate was 64% (40/63).

Participating church leaders held the official title as head of a church that met the eligibility criteria. Inclusion criteria for church leaders were (1) currently holding the position of church leader and having an official title as head of the church (e.g., pastor, minister) and (2) having held the position for at least 1 year. A total of 136 individuals (40 church leaders and 96 church members) participated in the study. Each participating church had a mean of 2.4 (range: 1–10) members from the HRC 2 study.

Procedure

Written letters were mailed to invite each church leader to participate in a semi-structured telephone interview. One week after the invitation letter was mailed, research team members called the churches to conduct the interview. After assessing eligibility by phone, verbal consent was obtained. The interview took an average of 30 min to complete. Participants were provided a $20 gift card upon completing the interview.

Measures

Church Leader and Church Member Characteristics

The interview assessed several background characteristics of the participants: age, gender, race/ethnicity, marital status, education, and employment status (PT/FT) (US Department of Health and Human Services 2005).

Church Characteristics

Questions were adapted from the pastor interview of the WATCH project (Campbell et al. 2004) and asked about characteristics of the church including denomination, governing board, membership size, race/ethnicity of current members, and the distance members travelled to attend church.

Beliefs

Using items adapted from an EPRC qualitative study that preceded HRC 2, participants were asked, 'Do you think it is appropriate as a church leader to talk about [eating healthy, losing weight, being physically active, smoking] in your sermons.' A similar question was asked on appropriateness to talk about these behaviors in one-on-one settings with church members. Response options ranged from, 'not at all appropriate' to 'very appropriate' on a scale of 0–4. To assess perceived member receptivity, leaders were asked 'In your opinion, how receptive would church members be to you talking to them about the following topics [physical activity, diet, smoking].' Response options ranged from 'very receptive' to 'not at all receptive' on a scale of 0–3. A composite score was created for each of the three categories to create scales (Sermon Appropriateness, One-on-One Appropriateness, Perceived Receptivity).

Church Health Promotion Environment

This section asked about several dimensions of the church environment: health messages, health-related programs and facilities, food availability, and smoking policy. Questions (originally from the St. Louis Church Health Survey) (St. Louis University 2004) were from the HRC 2 baseline survey and were adapted for church leaders.

Health Messages Index Health messages in the church environment were assessed by asking, 'Have sermons at your church ever included a message on the following health topics (nutrition/healthy eating, exercise/physical activity, and smoking).' A single yes/no item asked, 'Does your church ever include health messages in the church bulletin or newsletter? for example, encouraging exercise or good nutrition, not smoking, or seeking preventive health care.' A composite score was created by summing these four health message-related items.

Health Programs Index and Facilities The following questions were asked, 'Does your church offer or have exercise programs, nutrition/healthy eating programs, smoking cessation programs, and sports leagues. These four program-related questions were summed to create the Health Programs Index. A single yes/no item assessed the presence

of exercise facilities at the church by asking, 'Does your church have any exercise facilities?'

Healthy/Unhealthy Foods Indices Food availability at the church was assessed by asking, 'Are the following foods usually served at church events such as meetings, fellowships, bible study, or theme dinners?: (1) Baked, broiled or grilled chicken or fish, (2) Fried chicken or fish, (3) Fresh fruit or fresh fruit salad, and (4) Pastries, pies, cake, cookies. An index score was created for healthy foods (baked meats and fruit) and unhealthy foods (fried meats and desserts) by summing healthy and unhealthy foods that were served separately.

Smoking Policy A single item determined if the church site had a smoking policy: 'Does your church have a smoking policy or rule that says smoking is not allowed anywhere, smoking is allowed only in a few smoking areas, smoking is allowed anywhere except a few non-smoking areas, or is there no policy/rule?'

Data Analyses

Data were entered into SPSS Version 15.0 for analysis. Descriptive statistics were computed to examine distributions of all variables measured with closed-ended items. Based on an exploratory factor analysis, the 11 items that addressed church leaders' beliefs were divided into three categories: (1) beliefs regarding sermons (Eigenvalue = 4.9), (2) beliefs about talking in one-on-one settings (Eigenvalue = 1.1), and (3) beliefs regarding members' receptivity (Eigenvalue = 2.1). For each category, the items were summed to create scale scores as described earlier. An exploratory factor analysis was also run to determine where each item for the church health promotion environment loaded and to identify environmental domains.

Also, internal consistency reliability was computed for the summed scales on health messages (Cronbach's alpha = .73) and health programs (Cronbach's alpha = .57) for the church leader data and the church member data (health messages: alpha = .82; health programs: alpha = .75). Reliability testing was not calculated for the composite scores of healthy foods and unhealthy foods because of the small number of items and lack of variability.

Spearman Rho correlation coefficients were used to determine the level of association between the scale scores for church leaders' beliefs (Sermon Appropriateness, One-on-One Appropriateness, and Perceived Receptivity) and the Health Messages and Health Programs Indexes. Correlation coefficients were used to determine the association between leaders' and members' perceptions of the 14 items and the index scores. When there was more than one member from a church, the mean score was used in the correlation analyses.

Results

Participants

Demographic characteristics of the respondents (leaders and members) are presented in Table 1. The church leaders had a mean age of 52.3 (SD = 11.2). Church leaders were predominantly male (95%). Sixty percent were White, 85% were married, and the majority

Table 1 Background characteristics of church leaders and church members ($N = 136$)

Background characteristics	Church leaders ($N = 40$) (%)	Church members ($N = 96$) (%)
Age[a]		
<49	13 (34)	33 (34.4)
50–60	13 (34)	47 (49)
>60	12 (32)	16 (16.7)
Gender		
Male	38 (95)	38 (39.6)
Female	2 (5)	58 (60.4)
Race/ethnicity		
Caucasian/White	24 (60)	51 (53.1)
Black/Non-White	16 (40)	45 (46.9)
Marital status[b]		
Married	34 (85)	65 (67.7)
Other	6 (15)	28 (29.2)
Employment status		
Full-time pastor	27 (67.5)	–
Bi-vocational pastor	13 (32.5)	–
Education level		
≤High school	7 (17.5)	71 (74)
Some college	11 (27.5)	25 (26)
≥College degree	22 (55)	0

[a] $N = 38$ due to missing responses by church leaders

[b] $N = 93$ due to missing responses by church members

– not applicable for church members

were full-time pastors (67.5%). Slightly more than half had a college degree (55%). The majority of church members were over the age of 50 (65.7%), most were female (60.4%), slightly more than half were White (53%), and about two-thirds were married (67.7%). Most church members reported that they had a high school diploma or less education (74%).

Church Characteristics

Just over half of the participating churches had memberships of more than 200 people. Sixty percent of the churches were Baptist. Fifty-five percent of pastors reported that they decided whether or not their church would participate in health-related programs. Over half (57.5%) of the churches were predominantly White (at least 70% of members were white), and 42.5% were mainly African American.

Church Leaders' Beliefs

Descriptive information regarding church leaders' beliefs can be found in Table 2. A little more than half of the church leaders thought it was very appropriate to talk about eating healthy in their sermons (55%), and 47.5% thought it was very appropriate to talk about losing weight in sermons. More respondents felt it was very appropriate to talk about physical activity and not smoking in their sermons (77.5 and 70%, respectively). Church leaders held mostly positive beliefs regarding talking to their church members in one-on-one settings about eating healthy (80%), losing weight (75%), physical activity (82.5%), and smoking (90%). Fewer than half of the respondents reported that their members would

Table 2 Church leaders' beliefs ($n = 40$)

Sermon appropriateness[a]	
Eating healthy (n, %)	22 (55)
Losing weight (n, %)	19 (47.5)
Physical activity (n, %)	31 (77.5)
Smoking (n, %)	28 (70)
Sermon appropriateness scale	
Mean (SD)	2.5 (1.5)
Median	3
Range	0–4
One-on-one appropriateness[a]	
Eating healthy (n, %)	32 (80)
Losing weight (n, %)	30 (75)
Physical activity (n, %)	33 (82.5)
Smoking (n, %)	36 (90)
One-on-one appropriateness scale	
Mean (SD)	3.3 (1.2)
Median	4
Range	0–4
Perceived receptivity[a]	
Diet (n, %)	12 (30)
Physical activity (n, %)	17 (42.5)
Smoking (n, %)	17 (42.5)
Perceived receptivity scale	
Mean (SD)	1.1 (1.2)
Median	1
Range	0–3

[a] (n, %) represents percent of participants that responded very appropriate or very receptive

be very receptive to them talking about diet (30%), physical activity (42.5%), and smoking (42.5%). The mean for Sermon Appropriateness was 2.5 (SD = 1.5) on a scale of 0–4 with median of 3. The mean for One-on-One Appropriateness was 3.3 (SD = 1.2) on a scale of 0–4 with median of 4, and the mean for Perceived Receptivity was 1.1 (SD = 1.2) on a scale of 0–3 with median of 1.

Associations Between Church Leaders' Beliefs and the Church Health Promotion Environment

Table 3 presents associations between the church health promotion environment and beliefs of the church leaders. The Health Messages Index and the Sermon Appropriateness Index were positively correlated ($r = .44$, $P < 0.01$). The correlation between the Health Programs Index and Sermon Appropriateness was not significant ($r = .24$, n.s.). Similarly, the Health Messages and the Health Programs Indices were not significantly correlated with One-on-One Appropriateness ($r = .17$, n.s. and $r = -.10$, n.s., respectively). However, positive relationships were found between the Health Messages Index and church leaders' Perceived Receptivity ($r = .62$, $P < 0.01$), and the Health Programs Index and the Perceived Receptivity ($r = .40$, $P < 0.05$).

Table 3 Associations between church leaders' beliefs and the CHPE ($n = 40$)

	R
Sermon appropriateness scale	
Health messages index	.44**
Health programs index	.24
One-on-one appropriateness scale	
Health messages index	.17
Health programs index	−.10
Perceived receptivity scale	
Health messages index	.62**
Health programs index	.40*

* Correlation is significant at the .05 level (2-tailed)

** Correlation is significant at the .01 level (2-tailed)

Descriptions of the Church Health Promotion Environment

Descriptions of the church health promotion environment reported by church leaders and members are presented in Table 4. The Health Messages Index had a mean of 2.4 (SD = 1.4), on a scale of 0–4, median of 2.5 for the leaders, and mean of 1.9 (SD = 1.6), median of 2 for the members. The mean average for the Health Programs Index for church leaders was .65 (SD = .97), range = 0–4, and for members was .80 (SD = 1.2), range = 0–4. The Healthy Foods Index was high for both leaders and members (leaders: mean = 1.9 (SD = .27), on a scale of 0–2, median of 2; members: mean = 1.7 (SD = .53). The Unhealthy Foods Index also had a high average for both leaders (mean = 1.9 (SD = .22) on a scale of 0–2, median = 2) and members (mean = 1.8 (SD = .42), median = 2).

Associations Between Church Leaders' and Church Members' Perceptions of the Church Health Promotion Environment

There was no significant association between the Health Messages Index scores for church leaders and members ($r = -.03$, n.s.). Similarly, there were no significant relationships between church members' and church leaders' perceptions for any of the specific items within the index: existence of sermons on exercise ($r = -.14$, n.s.), nutrition ($r = .08$, n.s.), or smoking ($r = -.09$, n.s.) (Table 4). Additionally, there was no significant correlation between leaders' and members' reports of health messages in the bulletin or newsletter ($r = -.05$, n.s.).

There was a significant correlation between leaders' and members' reports of exercise programs in the church ($r = .32$, $P < .05$). However, leaders' and members' responses to nutrition programs ($r = .20$), sports leagues ($r = .03$), and smoking cessation programs ($r = .10$) were not significantly correlated. Church leaders' and church members' reports ($r = -.03$) of the overall Health Programs Index also were not significantly correlated.

Correlations between members' and leaders' scores for the Healthy Foods and Unhealthy Foods Indexes were not significant ($r = .24$ and $r = -.14$, respectively). There was concordance between church leaders and church members regarding fresh fruit being available in the church ($r = .44$, $P < .01$). However, there were no significant associations detected for baked meats ($r = -.10$), fried meats ($r = -.10$), or desserts ($r = -.04$). Additionally, there was no significant relationship between leaders and members and the

Table 4 Reported description of the CHPE and associations between church leaders' and church members' perceptions of the CHPE

	Church leaders ($N = 40$)	Church members ($N = 96$)	r
Health messages[a]			
Sermons on exercise/PA (n, %)	29 (72.5)	43 (44.8)	−.14
Sermons on nutrition (n, %)	28 (70)	47 (49)	.08
Sermons on smoking (n, %)	18 (45)	39 (40.6)	−.09
Messages in church bulletin/newsletter (n, %)	21 (52.5)	43 (44.8)	−.05
Health messages index Cronbach's alpha (leaders: .73; members: .82)			
Mean (SD), median, range	2.4 (1.4), 2.5, 0–4	1.9 (1.6), 2, 0–4	−.03
Health programs[a]			
Exercise programs (n, %)	5 (12.5)	14 (14.6)	.32*
Nutrition/healthy eating programs (n, %)	6 (15)	19 (19.8)	.20
Sports leagues (n, %)	10 (25)	30 (31.2)	.03
Smoking cessation programs (n, %)	5 (12.5)	11 (11.5)	.10
Health programs index Cronbach's alpha (leaders: .57; members: .75)			
Mean (SD), median, range	.65 (.97), 0, 0–4	.80 (1.2), 0, 0–4	−.03
Food availability[a]			
Baked/broiled/grilled chicken/fish (n, %)	39 (97.5)	79 (82.3)	−.10
Fried chicken/fish (n, %)	39 (97.5)	80 (83.3)	−.10
Fresh fruit/fresh fruit salad (n, %)	38 (95)	81 (84.4)	.44**
Pastries, pies, cake cookies (n, %)	39 (97.5)	90 (93.8)	−.04
Healthy foods index			
Mean (SD), median, range	1.9 (.27), 2, 0–1	1.7 (.53), 2, 0–1	.24
Unhealthy foods index			
Mean (SD), median, range	1.9 (.22), 2, 0–1	1.8 (.42), 2, 0–1	−.14
Smoking policy[a]			
Smoking policy present	23 (57.5)	55 (57.3)	−.31
Exercise facilities[a]			
Exercise facilities	19 (47.5)	9 (9.4)	.04

[a] N = less than 96 due to missing responses by church members

* Correlation is significant at the .05 level (2-tailed)

** Correlation is significant at the .01 level (2-tailed)

two single items regarding the presence of exercise facilities ($r = -.31$, n.s.) or a smoking policy ($r = .04$, n.s.).

Discussion

This study addresses several gaps in the literature by exploring individual (e.g., leader beliefs), organizational (e.g., smoking policies), and environmental level factors (e.g., exercise facilities) in the church. The findings illustrate the beliefs that church leaders may

hold about selected aspects of the church health promotion environment. These findings are relevant to the design of future church health programs. To the best of our knowledge, this is the first study to compare leaders' and members' perceptions. As we move toward implementing multi-level interventions in the church setting, the discordant findings between leaders and members provide valuable insights into how to approach initiatives in church health promotion environments.

A significant association was found between church leaders' beliefs regarding appropriateness of talking about various health topics in sermons and their use of health messages in church. This finding demonstrates that as church leaders' beliefs regarding the appropriateness of talking about health topics increased, the presence of these types of messages in the church also increased. Similarly, a positive significant relationship was detected between their perceptions of church members' receptivity and the presence of health messages and health programs in the church. One notion to be considered is that church leaders may believe it is appropriate to include health topics as a part of their sermons, because they recognize the importance of connecting the biblical messages to health-related issues. Previous studies have supported making a spiritual connection to messages about health (Oexmann et al. 2000). Church leaders were very positive in their responses regarding the appropriateness of talking with their church members in one-on-one settings across all health topics. These findings are supported by previous studies that explain that one of the main roles of a church leader is to act as a counselor to the church members (Taylor et al. 2000).

Only two of the 14 church health promotion environment items were significantly associated between church leaders and members—exercise programs and fruit availability in the church. The remaining non-significant findings suggest that leaders and members did not see many components of the health promotion environment in similar ways. The study's findings support the research conducted by Raviv and colleagues, in which the perceptions of the actual environment differed between teachers and students (Raviv et al. 1990). One reason the two items, exercise programs and fruit availability, were correlated may be because they are very concrete aspects of the environment. There may be certain components of the environment that can be better measured by collecting data from multiple sources (e.g., programs present), while other aspects of the environment that are less straightforward may need to be measured in alternative ways, such as observation or content analysis of church bulletins or sermons.

Strengths and Limitations

There are important strengths of this study. It is one of only a few studies that examine church leaders apart from a larger intervention study (Taylor et al. 2000). Additionally, the data collected in this study on White churches address the lack of data on non-Black churches noted in the literature (Campbell et al. 2007a); the rural setting also addresses a gap. To the best of our knowledge, this is the first study to compare the responses of church members to church leaders regarding their perceptions of the church environment. Finally, the health messages and health programs items used to assess the church health promotion environment achieved good reliability to create scales. These measures made it possible to look at items separately and as a composite score.

There are also several limitations to interpretation of these findings. First, the sample consisted of male, full-time pastors of mostly Baptist churches, so this study may not be generalizable to a larger population of church leaders. There were small numbers of members from each church in the study, and they may not be representative of the

congregations. Also, the study took place in a rural area, and the findings may not be applicable to churches in urban or suburban settings.

This study sought to assess a wide range of factors to see whether they were related to the church health promotion environment. However, looking at multiple aspects limited the potential to measure any one of these components in great detail. This approach may have limited the study's ability to fully test how these factors may relate to the church health promotion environment. Additionally, our study did not include a measure of congregants' beliefs regarding the appropriateness of health messages in sermons and in one-on-one settings, so we did not have comparative data. However, this study built on an earlier qualitative study of 60 White and African American men and women living in rural southwest Georgia (Alcantara et al. 2007). In that study, in-depth interviews were conducted to gain an understanding of how environments (home, work, church) might influence their cancer-prevention behaviors. Findings from that study revealed that while most church goers felt it was *appropriate* for their church leaders to discuss health topics, they nonetheless reported that most church leaders did not incorporate these messages in their sermons. The results of the earlier study helped to inform the measures and analysis used in the supplemental study reported here, including raising the theme of discordance between church members' and leaders' views. Finally, the relatively small sample size and reliance on self-report further constrained the interpretation of findings, as did the cross-sectional nature of the data.

Implications and Recommendations

The results from this study have important implications. First, there may be other beliefs not measured in this study that church leaders uphold that may align with aspects of the church health promotion environment. Future research should assess a wider range of beliefs, which may assist in learning how these relate to endorsement of programs in the church.

Past literature supports the idea that church leaders' engagement is key to the start and success of programs in the church (Ammerman et al. 2003; Markens et al. 2002; Taylor et al. 2000). Our results found a positive relationship between perceived receptivity and the presence of health messages and health programs. These findings suggest that not only is it important for the pastors to be receptive to new programs, the pastors may base their acceptance of programs on how they think their members will react. Future strategies church leaders could employ would be to get an accurate understanding of what their members may like or dislike regarding health-related activities. Specifically, since church leaders held more positive beliefs about appropriateness to talk in one-on-one settings, they could gauge members' reactions to prospective health-related activities by talking with them during their one-on-one counseling sessions. Additionally, our findings indicate that church leaders think it is more appropriate to talk about physical activity and smoking in their sermons than about nutrition topics. Given these findings perhaps that is the place for pastors to start. Church leaders could start with those health topics, gauge their members' reactions and then move to other topics.

If leaders can gain a solid understanding of what their members want, leaders will be better equipped to incorporate a health promotion environment that will be well utilized and sustainable. As researchers implement future church-based health promotion interventions, they can take church leaders' beliefs into consideration as they design their programs. These considerations may result in a better understanding of what types of programs may be more positively received by the church leader.

The current state of the literature highlights the gaps within church-based studies, one of which is little research that addresses the several levels within the church organization. Prior to developing organizational interventions aimed at making changes within the church environment, a basic understanding of the church environment is needed. The information gained from this study illustrates that reliability of perceived environment varies by component as highlighted by disagreement between perceptions of church leaders and church members. Future studies should include an objective observation of the church environment. This information could shed light on what is reported versus what is actually present.

The data collected on church leaders' beliefs suggest there may be other individual, interpersonal, organizational or environmental level factors that influence what is happening in their church. Future studies can extend the current work to determine how not only individual but also interpersonal, organizational and environmental level factors relate to the presence of health promotion messages, programs, and policies in the church. If these levels are addressed appropriately, it may result in more sustainable changes within the church environment and ultimately in the populations they serve.

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