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Participating in Research: Attitudes within the African American Church

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Abstract

Objective—We assessed associations between pastor and congregant characteristics and congregant attitudes about research participation among African American churches.

Methods—Respondents shared their attitudes regarding how willing, ready, and confident they were about research participation. The outcome measure, the index of research preparedness, summed responses across the domains of willingness, readiness and confidence.

Results—Pastor age and pastor educational attainment were independently associated with a congregants' higher index of research preparedness.

Conclusion—Young and educated pastors were significantly associated with congregant attitudes about participation preparedness, a finding that highlights the importance of the pastor regarding congregant research participation decisions.

INTRODUCTION

African Americans in the United States carry a disproportionate burden of disease and endure greater morbidity and mortality compared to Caucasians, from conditions such as cardiovascular disease [1], stroke [2], diabetes [3], and cancer [RW.ERROR - Unable to find reference:65]. Recent studies highlight the lack of access to health research as one factor that exacerbates these racial health disparities [RW.ERROR - Unable to find reference:28]. Consequently, efforts to increase involvement of African Americans in health research have gained importance.

Church-based research initiatives represent one mechanism that has become a primary focus for health disparity researchers [7–12]. The central role of the church within the African

American community and its potential in engaging African Americans in research has been well established [RW.ERROR - Unable to find reference:33]. Recent studies in organizational theory that address readiness for change highlight the importance of leadership to organizational change and shaping individual readiness for change [RW.ERROR - Unable to find reference:43]. Similarly the church-based research literature emphasizes the influence of the pastor regarding congregant attitudes towards health research [RW.ERROR - Unable to find reference:40] and congregant receptiveness to research initiatives [RW.ERROR - Unable to find reference:40].

Although the importance of the pastor in influencing the church congregation is well known, few studies have empirically evaluated the pastor as an example of organizational leadership in relation to individual congregant attitudes towards health research participation. The relationship between the pastor and the congregant regarding readiness for change decision making within the African American church is not described or well understood through the current literature. In this study, we assess attributes that are associated with organizational leadership (pastor) and individuals (congregants) as they relate to individual attitudes about research participation preparedness in the African American church. We also examine the possible contribution of pastor characteristics to congregants' preparedness for research participation.

METHODS

Recruitment

The study sample included predominately African American North Carolina churches that comprised a voluntary church network, the Data Collection/Data Distribution Network (DC²). The network was established to engage churches in collaborative research and education; a description of this network has been published elsewhere [RW.ERROR - Unable to find reference:63]. Churches were solicited through mailing lists from African American churches in North Carolina and through the North Carolina General Baptist State Convention [7, 11]. The 18 churches in the network were in regions with high population proportions of African Americans and high prevalence of chronic diseases (i.e. diabetes, hypertension, cardiovascular disease, stroke, and cancer) [RW.ERROR - Unable to find reference:63]. Eleven pastors providing consent were surveyed along with 1,326 adult church members age 18 or older. Participation by church members was voluntary. Of the 1,326 congregants that completed the survey (survey response rate = 50%), 232 were excluded from the analysis due to missing church identifiers preventing the matching of congregant and church.

Church pastors were contacted and gave consent to disseminate a congregational health assessment survey (CHA) in their church. Pastors and pastor appointed church liaisons decided on the most appropriate time for distribution of the CHA: most commonly before, during, or after regularly scheduled church events (e.g., Sunday service, bible study, choir practice, and church auxiliary meetings). Pastors and/or liaisons requested adult parishioners to voluntarily complete the survey.

Survey Instrument

A description and the full CHA instrument were published elsewhere [11]. The CHA is comprised of 40 questions querying congregants' demographics, health status, family health status, preferred method of receiving health promotion related information, and health conditions within the church (i.e. hypertension, diabetes, heart disease, obesity, STDs, cancer, glaucoma). Additionally, congregants were asked to share their views about research participation. Two churches not in the network pilot tested surveys to assess the appropriateness and comprehension of survey questions prior to data collection for this study. Pastors provided feedback on drafts of the CHA document before it was finalized and distributed. Pastor level demographics were collected through a separate 15-question survey instrument completed by the pastors. Pastor appointed church liaisons were trained on administration of the CHA and assisted in distribution of the survey at church sponsored services. Before the questionnaires were administered, the liaison in each church described the survey and obtained verbal consent from eligible participants who were assured confidentiality and anonymity. The survey instruments and all study procedures were approved by the Behavioral Institutional Review Board at the University of North Carolina at Chapel Hill.

Measures

Pastor characteristics included pastor gender (male/female), pastor median age (<45 years old versus ≥45 years old), years of pastoral experience (<6 years versus ≥6 years), pastor education (high school or less versus greater than high school), and size of active congregation (<400 members versus ≥400 members). Congregant characteristics included gender (male/female), age (<50 years old versus ≥50 years old), education (<high school education versus high school education), family member health conditions (no health condition versus one or more health conditions), concern about paying for healthcare (yes/no), concern about own health (yes/no), and the congregant having two or more health conditions (yes/no). Pastor and congregant ages were dichotomized based on median values while congregant health conditions were dichotomized based on mean values.

Index of Research Preparedness

To assess congregant preparedness to participate in research, three questions were posed: 1) I would be willing to participate, through my church, in a research project that promotes health; 2) I feel confident that I could successfully participate, through my church, in a research project that promotes health; and 3) I am ready to participate, through my church, in a research project that promotes health. In addition, we created a composite score to represent the congregant's preparedness for health research participation. We conducted a confirmatory factor analysis to determine whether the three items loaded on the same factor to create a composite score. A factor loading of 0.70 or above was considered to load on the composite score of research preparedness [RW.ERROR - Unable to find reference:64]. In this analysis, all three of the items had loadings that were all greater than 0.70 resulting in one composite index of research preparedness with a Cronbach's alpha of 0.86. The research preparedness score summed the responses of the three dichotomized attitude items (willing, ready, and confident) with one point assigned for each belief coded as "yes" for a total

ranging from 0–3 for each congregant. Because the data was skewed, the index of research preparedness was dichotomized by a score of three versus less than three. A score of three was considered a high research preparedness score in this study.

Analysis

This analysis included data from 1094 respondents from the 11 participating churches. We used descriptive statistics to summarize pastor characteristics and congregant characteristics. Associations between research attitudes and pastor and congregation characteristics were assessed using logistic generalized estimating equations (GEE) to adjust for clustering of data. The GEE models allow for assessment of impacts of the primary predictor variables and multiple covariates on the dependent variables (ready, willing, confident, and research preparedness index score) [19, 20]. The models are presented according to the domains of pastor and congregant characteristics for associations with the outcome measure and initially controlled for pastor characteristics, then congregant characteristics, and finally controlling for both pastor and congregant characteristics together.

RESULTS

Of the 1,094 responding congregants, most were from large congregations with pastors that were young, educated, and male (Table 1). Congregants were comprised of generally healthy, older, educated women of whom the overwhelming majority was willing, confident, and ready to participate in research.

Next, we examined unadjusted bivariate associations of pastor and individual characteristics with the research attitudes of feeling ready, willing, and confident (Table 2). Having a female pastor was associated with a higher odds of being ready (OR 1.49; CI 1.09– 1.82) and willing (OR 1.47; CI 1.06– 2.04). Church members with young or inexperienced pastors had greater odds of being willing, ready, and confident but this association was not significant across all of the attitude categories. Church members with more educated pastors had lower odds of feeling ready but higher odds of being confident (OR 1.73; CI 1.44– 2.07) about research participation. Church members who were concerned about health related costs had higher odds of being willing, and confident about research participation. Church members who were concerned about their own health also had higher odds of being confident and ready, but did not have higher odds of being willing to participate in research.

We also assessed the adjusted relationships between pastor and individual characteristics and congregants' attitudes towards research participation. When controlling for pastor and individual characteristics, church members with female pastors had higher odds of being ready and confident, and likewise, members with young pastors had higher odds of being ready and confident. Church members who had financial concerns for health care were more ready, willing, and confident after adjusting for pastor and congregant characteristics.

To better understand the relationship between pastor/individual characteristics and the beliefs regarding research participation, we examined the association between pastor and church member characteristics and the research preparedness index (Table 3). Church members with pastors who were more educated (OR 1.56; CI 1.28–1.89) and younger (OR

1.28; CI 1.07–1.54) had increased odds of having a research preparedness score of 3 when controlling for pastor and congregant characteristics (Model 3). Church members who were concerned about paying for health care had higher odds of having a high research preparedness score (OR 1.53; CI 1.24–1.89) after controlling for pastor and congregant characteristics (Model 3).

DISCUSSION

In a sample of African American congregants in North Carolina, our findings suggest that church members are largely ready to participate in health research and that pastor characteristics have meaningful associations with individual decisions about research participation. Pastors who were young and educated were associated with church members who felt that they were prepared to participate in research. These findings underscore the importance of the attributes of organizational leadership as they relate to personal attitudes about research participation and provide investigators with measurable factors that are associated with research participation.

Although no studies to date have evaluated the pastor as an organizational leadership construct in health disparities research, the readiness for change literature recognizes the importance of leadership in the acceptance and integration of innovation within individuals in an organization [RW.ERROR - Unable to find reference:49]. An important finding, in a community that is perceived to be difficult to recruit for research studies, was the large number of congregants who scored highly on the index of research preparedness. These findings bolster current research that demonstrates a similar self-reported willingness to participate in biomedical research among African Americans and non-Hispanic whites, and that racial minorities describe a similar willingness to participate in health research [RW.ERROR - Unable to find reference:47]. Research efforts might be better targeted to ensuring that African Americans have awareness of and access to research opportunities instead of focusing on changing research attitudes.

While we find these results compelling, there are limitations. Congregants and pastors who agreed to participate in this study might have more favorable attitudes regarding research participation than the congregants and pastors that refused which would likely decrease the magnitude of the observed effect. Similarly, the individuals sampled in this study voluntarily agreed to participate and have the potential for bias towards participation. Additionally, while these findings may be generalizable to African American churches in the Southeastern US, we would recommend caution in generalizing these findings to African American churches in other settings or to the greater African American population. Furthermore, the cross sectional design of the study does not infer causal pathways.

Despite these limitations, this is the first empirical study to examine the African American pastor as an organizational construct in research participation. We believe that the overall number of congregants scoring highly on the index of research preparedness in this study is an important finding that should refocus research efforts towards creating more availability of research participation within an already receptive African American community. The pastor attributes associated with higher index scores elucidates aspects of the church

organization and leadership that health researchers should consider in engaging the African American churchgoing community for research participation. We do not suggest these results to steer investigators to particular churches that appear ripe for research participation based on a set of pastor characteristics but rather to better provide a balance between investigator effort and church preparedness. Further research is needed to define and better describe the magnitude of influence of the church leadership (pastor) on congregant decisions about health research so that investigators can properly and equitably partner with the African American church community.

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Biography

Dr. Odulana is currently a Primary Care Research fellow at the Sheps Center for Health Services Research at the University of North Carolina at Chapel Hill. He obtained his MD, MPH, and undergraduate degree in biology at UNC-Chapel Hill. His current research interests are in community based participatory research in vulnerable populations, racial ethnic health disparities, and obesity. He is internal medicine and pediatrics trained and completed his residency training at the Virginia Commonwealth University Health System.

Table 1

General Characteristics of Pastors and Congregants

	<i>N</i> (%)
Total Respondents	1094(100.0)
<i>Pastor Characteristics</i>	
Female Pastor	235(21.5)
Pastor age < 45	568(51.9)
Pastoral experience ≥ 6 years	547(50.0)
Pastor with >high school education	1064(97.3)
Active congregation 400 or more	746(68.2)
<i>Congregant Characteristics</i>	
Male	302(27.6)
Age ≥ 50 years	620(56.7)
High school education or higher	900(82.3)
Family member has health condition	1043(95.3)
Concern about paying for health care	557(50.9)
Concern about own health	981(89.7)
Respondent has 2 or more health conditions	543(49.6)
Willing to participate in research	875(80.0)
Confident about ability to participate in a research project	885(80.9)
Ready to participate through my church in a health research study	822(75.1)

Table 2

Unadjusted Odds Ratio (OR) for the Association between Pastor or Congregant Characteristics and Attitudes Towards Research

	Unadjusted OR (95% CI)		
	Willing	Ready	Confident
<i>Pastor Characteristics</i>			
Female Pastor	1.47 (1.06,2.04)	1.49 (1.09, 2.04)	1.33 (0.97, 1.82)
Pastor age < 45	1.38 (1.09, 1.75)	1.26 (0.93, 1.70)	1.51 (1.24, 1.83)
Pastoral experience 6 years	1.53 (1.35, 1.74)	1.32 (1.18, 1.47)	1.50 (1.23, 1.81)
Pastor with >high school education	1.13 (0.94, 1.35)	0.85 (0.73, 1.00)	1.73 (1.44, 2.07)
Active congregation 400	1.11 (0.85, 1.44)	1.14 (0.96, 1.34)	1.02 (0.72, 1.44)
<i>Congregant Characteristics</i>			
Male	1.05 (0.74, 1.48)	1.05 (0.80, 1.39)	1.12 (0.79, 1.59)
Age 50 years	0.97 (0.72, 1.30)	1.11 (0.81, 1.52)	0.84 (0.58, 1.21)
High school education or higher	1.17 (0.67, 2.03)	0.98 (0.67, 1.44)	0.98 (0.72, 1.33)
Family member has health condition	0.93 (0.50, 1.72)	1.15 (0.63, 2.10)	0.89 (0.40, 1.98)
Concern about paying for health care	1.43 (0.98, 2.08)	1.47 (1.12, 1.94)	1.57 (1.19, 2.07)
Concern about own health	2.02 (1.18, 3.44)	1.72 (0.91, 3.26)	1.58 (1.07, 2.35)
Respondent has 2 or more health conditions	1.11 (0.84, 1.46)	1.12 (0.86, 1.46)	1.00 (0.71, 1.42)

Table 3

Adjusted Odds Ratio (OR) for the Association between Pastor or Congregant Characteristics and High Research Preparedness Index Score

<i>Number of observations^b</i>	<i>Index of Research Preparedness=3</i>		
	<i>Adjusted OR(95% CI)^a</i>		
	Model1 947	Model2 924	Model3 865
<i>Pastor Characteristics</i>			
Female Pastor	1.15(0.97, 1.35)		1.12(0.88, 1.43)
Pastor age less than 45	1.16(0.98, 1.37)		1.28(1.07, 1.54)
Pastoral experience 6 years	1.16(0.98, 1.37)		1.05(0.83, 1.32)
Pastor with >high school education	1.38(1.21, 1.58)		1.56(1.28, 1.89)
Active congregation 400	0.89(0.75, 1.06)		0.96(0.77, 1.19)
<i>Congregant Characteristics</i>			
Male		1.04(0.75, 1.45)	0.96(0.68, 1.36)
Age 50		0.82(0.61, 1.12)	0.84(0.63, 1.12)
High school education or higher		1.35(0.74, 2.47)	1.51(0.88, 2.60)
Family member has health condition		0.57(0.17, 1.93)	0.58(0.18, 1.82)
Concern about paying for health care		1.40(1.12, 1.75)	1.53(1.24, 1.89)
Concern about own health		1.47(0.73, 2.99)	1.29(0.69, 2.42)
Respondent has 2 or more health conditions		1.12(0.78, 1.59)	1.08(0.77, 1.54)

^a Adjusted odds ratios are adjusted for all variables in the respective columns. Model 1 controls for pastor characteristics; Model 2 controls for congregant characteristics; and Model 3 controls for pastor and congregant characteristics. All models adjust for clustering within churches.

^b N represents observations with non-missing data retained in the model.