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Size Matters: Addressing Social Determinants of Health through Black Churches

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Abstract

Congregational size has been most consistently linked with offering health-related programs. However, few studies have examined the unique contribution of congregational size when considering other factors and across a range of health topics including those identified as social determinants of health. The current study sought to fill this gap. Eighty-eight faith leaders from 63 Christian churches in Baltimore, Maryland provided information about themselves, their congregations and the programs offered in their congregations. Over half of the sample were Baptist and 60% were women. Logistic regression analyses were conducted to examine the extent to which congregational size was associated with the likelihood of having health programs. Results showed that faith leaders from larger congregations are significantly more likely to report having more programs overall and programs that specifically target health/healthcare and education, even after accounting for faith leader characteristics and denomination. However, both large and small churches had an equal likelihood of offering programs related to economic stability and social/community contexts. Our findings extend previous research and suggest important next steps for researchers and practitioners to consider on how best to involve congregations in health promotion and well-being among urban communities of color.

Keywords

social determinants of health; health promotion; health equity; faith-based

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Ethical Approval: All procedures performed in this study involving human participants were in accordance with the ethical standards of the institution and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This research was reviewed and approved by the Institutional Review Board at Johns Hopkins Bloomberg School of Public Health (IRB #6366).

Informed Consent: Informed consent was obtained from all participants.

Background

Black Americans are at higher risk than other populations for many diseases and health issues including cancer, high blood pressure, high cholesterol, chronic disease, infant mortality, psychological distress, and homicide [1]. In addition, Black people are also still disproportionately represented among people living with HIV and other sexually transmitted diseases and infections [2]. Although individual behavior plays a role in determining health outcomes, social circumstances in which people live, work, play and pray, commonly referred to as the social determinants of health, also contribute to their health [3,4]. For example, studies have shown that lower socioeconomic status, education levels, wealth, and neighborhood factors are associated with higher risk for various health issues, especially among Black Americans and other minority populations [5,6].

Over half of Black Americans report attending church at least once a week, and 79% report that religion is a very important part of their life [7]. Therefore, working with faith leaders to provide health-related programs and services in Black churches may be a promising strategy for addressing the health needs of Black Americans. Many Black churches already offer some interventions and programs that address health issues plaguing Black communities. For example, Black churches have implemented programs relating to nutrition, physical activity and weight-loss to combat obesity and chronic disease [8–13]. Also, a variety of programs have been developed to address cardiovascular health [14–16] and cancer awareness and prevention [17–20] among congregants and community members. In addition, strategies are increasingly used in Black congregations to encourage HIV/STI testing and to provide support for people living with sexually transmitted diseases [21–26].

Along with programs directly addressing health and health care, Black churches also offer programs and interventions which address the social determinants of health. Social determinants may affect the opportunities available to individuals by providing additional social capital [27]. For example, Black churches have offered tutoring and other programs for educational support in Black communities in response to racial disparities in academic outcomes [28–31]. Some Black churches also have programs and discussions to address social and community issues including food accessibility, LGBT issues, violence prevention, and politics [32–35]. Furthermore, employment and economic stability among Black communities have received some warranted attention by Black churches [36,37]. This evidence suggests that health programming and collaboration with public health agencies in churches may be a feasible method of reducing negative health outcomes among Black Americans.

Not all churches are equally likely to offer programs to improve health among congregants and community members. Several congregational characteristics have been associated with offering programs that are directly or indirectly related to health. Studies have shown that Baptist and Methodist denominations are more likely to offer social and health-related programming 38. Previous research also suggests that programming is more common in more established congregations and congregations with paid clergy [31,39]. Characteristics of faith leaders themselves have also been associated with likelihood of offering programs which address health and the social determinants of health. Highly educated faith leaders are

more likely to offer health-related and education-related programs [31,40,41]. More experienced and tenured faith leaders also reported offering more health-related programs within their congregations [38,39].

Congregation size is the most consistent characteristic linked to program offerings. Specifically, researchers continue to find that larger churches offer more health and educational programming than smaller churches [31,39–41]. However, few studies have investigated the influence of congregation size on whether churches offer programs that address the social determinants of health more broadly [42]. Furthermore, research has not investigated the independent influence of congregation size on health-related program offering by controlling for other faith leader and congregational characteristics listed above. Such research may reveal tailored strategies to support churches so that they can better meet the needs of their congregants and communities. Accordingly, we assessed how congregation size is associated with health-related program offering in Black churches in Baltimore, MD when accounting for other congregational and faith leader characteristics.

Method

The research was conducted in Baltimore, Maryland in partnership with local faith leaders serving predominantly Black American families. Faith leaders were defined as anyone who serves in a leadership role within the congregation. This included senior pastors, ministers, ministry leaders, ushers, and deacons. This research was approved by the Institutional Review Board at the Johns Hopkins Bloomberg School of Public Health. All data were collected between October 2016 and March 2017.

Participants

One hundred six faith leaders participated in this study. However, 18 responses were excluded because the churches represented were outside of Baltimore City. Therefore, the analytic sample included responses from 88 faith leaders, representing 63 congregations and more than 15 denominations. Fifty-one percent of faith leaders in this study were from Baptist congregations. Faith leaders ranged in age from 21 to 76 years old (M = 57 years old), and 60.2% were women. Over half of the sample reported being a senior pastor or minister (55.7%). Nearly two-thirds of faith leaders (62.5%) were from congregations with fewer than 250 members. The sample was highly educated with nearly half (48.3%) reporting having an Advanced Degree (e.g., MDiv, MD, or PhD). Detailed demographic information can be found in Table 1.

Measures

Faith leader characteristics.—Seven items assessed the demographic characteristics of faith leaders: age, gender, race, marital status, current position, length of membership, and education level. Age and length of membership were coded as continuous variables while gender (i.e., male, female), race (i.e., Black, White, multiracial), marital status (i.e., married/committed, single, other), current position (i.e., pastoral, non-pastoral), and education level (i.e., less than college, college or more) were coded as categorical variables.

Congregational characteristics.—Four categorical items assessed the demographic characteristics of each congregation: denomination, congregation size, presence of sermons regarding health topics and presence of an appointed person for health-related activities. Participants were asked one open ended question about the denomination of their church: "What is the denomination of your church?" A total of 17 unique responses were reported, with 45 participants (51%) listing "Baptist" as the denomination of their church. To compare more equal groups, we collapsed the responses for denomination into two categories, Baptist and non-Baptist. Participants were also asked "About how many people attend your church?" They were given the following four response options: Fewer than 100 people (34.1%), between 101 and 250 people (28.4%), between 250 and 500 people (14.8%) and over 500 people (22.7%). The four categories were collapsed into two categories (i.e., 250 or less and 251 or more) to more parsimoniously analyze the data. Participants were asked to respond "yes" or no" as to whether there had been sermons about health topics and whether their congregation had an appointed person for health-related activities.

Program offerings.—Participants were asked to report whether their congregations currently had 21 health-related programs and services. Examples include a health fair, daycare or school, as well as classes or events about personal finance management, sexual health, or family violence. A complete list of programs can be found in Table 2. "Yes" responses were labeled one and "no" responses were labeled zero. All programs were categorized into one of four domains aligning with social determinants of health categories: health/health care, social/community, education, and economic stability.

Procedures

Participants were recruited using three strategies: (1) existing networks, (2) referrals from individuals embedded in the Black Church community, and (3) pastor and colleague referrals. In-person announcements about the project were made at ministerial and community meetings. To be eligible, individuals had to be 18 years of age or older, speak and read English, and serve as a faith leader of a congregation with members that were predominantly Black/African American (i.e., > 60%). Multiple key informant reports are widely used to obtain accurate information about the features of organizations and groups [43,44]. Therefore, up to three faith leaders from each church were invited to complete the survey.

Participants completed an 83-item Congregational Health Survey (CHS). The CHS was developed in partnership with local faith leaders to ensure local relevance and utility. The questions were divided into four sections: demographics, health needs, health assets and decision factors. The current analyses focus on the demographic and health assets sections of the survey. Eligible participants could complete the paper or online version of the survey. Interested participants read the consent statement and provided their oral consent before completing the survey. All survey responses were anonymous. Participants received \$25 for completing the paper version of the survey and a \$25 Amazon.com gift card for completing the online version of the survey.

Data Analysis

The analyses were conducted with SPSS 26. The frequencies of all reported programs were calculated and can be found in Table 2. A total sum score was also created to reflect the total number of programs and interventions offered as reported by each participant. Sub-scores were created to reflect the reported presence of programs and interventions relating to each of these four social determinants of health.

Chi-square and t-test analyses were conducted to examine unadjusted relationships between faith leader and congregational characteristics and reported program offering. Statistically significant covariates (p <.05) in the univariate models were included in the multivariate model (i.e., denomination, faith leader position and education level). Multivariate logistic regression models were used to investigate the adjusted relationship between congregational size and reported program offering. Fifteen of the 63 congregations (24%) had more than one respondent (i.e., 2–4 respondents). To account for the correlation that exists between respondents from the same congregation, generalized estimating equations (GEE) were used to obtain odds ratios and confidence intervals, with the congregation acting as the unit of cluster.

Results

Preliminary Analyses

Overall, Black churches in Baltimore offered programs addressing a variety of social determinants of health. Health fairs were the most commonly reported health service (54.5%), and food pantries were most popular among programs addressing social and community context (67.0%). In addition, faith leaders frequently reported religious education for adults within their congregation (64.8%). Programs for finance management (37.5%) and employment/job training (33%), the two economically-related programs addressed in this study, were both reported by less than half of the sample (See Table 2 for details).

Chi-square analyses revealed that congregation size was significantly associated with faith leaders' reports of offering programs related to health and health care, education, and social and community context. Denomination, faith leader education level, and faith leader position were also significantly associated with whether faith leaders reported the presence of some programs. As a result, these variables were entered as covariates into the multivariate logistic regression model.

T-tests reveal that congregation size was a significant factor in whether faith leaders reported the presence of programs, especially those related to health or health care and education. Faith leaders from larger congregations reported offering more programs than those from smaller congregations (t(81) = -2.64, p = .010). When programs and services were examined by social determinant of health category, faith leaders from larger congregations were also more likely than those from smaller congregations to offer programs related specifically to health/health care and education (t(76) = -2.36, p = .021 and t(79) = -4.17, p < .0001, respectively).

Main Analyses

After adjusting for other important covariates, multivariate logistic regressions revealed that congregation size was only a significant factor in faith leaders' reports of programs related to health/health care and education (see Table 3). Compared to larger congregations, smaller congregations reported fewer programs relating to health and education. Specifically, faith leaders from smaller congregations were 41% less likely to report that their church offers HIV testing or counseling (p=.032) and 32% less likely to report the presence of alcohol and drug recovery programs (p=.034) than larger congregations. In addition, faith leaders from smaller congregations were 2.17 times less likely to report that their church offers daycare (p=.004) and 57% less likely to report that their church offers tutoring programs or college planning than faith leaders from larger congregations (p=.008). There were no significant differences between congregations of different sizes in their reports of offering programs related to economic stability or social/community context.

Discussion

This study was designed to examine the unique influence of congregation size on program offering related to the social determinants of health in Black churches in Baltimore, MD. Our findings support previous research demonstrating that larger congregations are more likely to offer health-related programming [31,39–41]. Our findings also extend previous research by demonstrating the limitations of congregational size as an influential factor in offering programs related to the full range of social determinants of health.

Larger churches were more likely to offer programs related specifically to health/health care and education. This suggests additional measures are needed to support these types of programs among smaller churches. Often small churches are located in within communities and may be better able to quickly reach out and meet the needs of their members [45]. Limited resources may prohibit small churches from offering a full range of services. However, pooling resources and taking a network approach to meeting the needs of congregants and community members may allow the combined efforts of the smaller community churches to be magnified.

Most congregations in the United States are small and have fewer than 100 regular attendees; however, most people (over 50%) attend large congregations with more than 350 people [46]. Consistently, 34.1% of the faith leaders from our sample were from smaller congregations. Thus, offering health-related programming in these congregations is important because many people attend smaller churches. Large churches may form partnerships with smaller churches in the region or other sectors of the community to increase access to public health interventions among community members. In addition, public health agencies and organizations may provide financial and technical support to smaller congregations willing to address the social determinants of health to optimize the benefit of faith-based programming in Black communities.

No differences were noted by congregational size in programs offered related to economic stability and social/community context, implying that congregations of all sizes were inclined to offer these types of programs at similar rate. These findings force us to

acknowledge the extent to which Black churches can move beyond addressing health needs to also promote health equity. A focus on a broader set of indicators for health may allow Black churches strategically address interconnected health issues in a socially equitable way [47]. Consistent with a Health in all Policies approach, engaging Black churches as partners would likely advance the goals important to the community such as promoting job creation, positive community-police relations, and housing stability [48].

The fact that programs for substance abuse and HIV testing and counseling were the programs in the health/health care category for which congregation size was significant is understandable given the increasing attention to these issues in Baltimore. The prevalence of death due to drug and alcohol overdose in Baltimore is increasing and the Baltimore City Health Department has called for various interventions to decrease HIV transmission [49,50]. Because drug addiction and HIV are growing concerns in the city, it is unsurprising that congregation size is an influential factor in the offering of these programs because larger congregations may have more resources available to address these concerns. This might also hold true for education programs such as daycare and tutoring or college planning, which require committed personnel and extra materials. Further research should explore reasons why congregation size is so influential in program offering and whether this trend exists in other regions in the U.S.

Despite the wide range of programs pertaining to social and community context listed on the survey, congregation size was not significantly associated with faith leaders' reports of any of these programs in the adjusted model. This indicates that other factors besides congregation size are more important in influencing program offering related to social and community context within Black churches. Ayton and colleagues [51] found that emerging churches were more likely than traditional or modern ones to be engaged in broad health promoting activities. Barnes [32] found that churches that use more gospel music during service and that sponsor prayer groups are more likely to have prison ministries and food pantries for congregants or community members. These church characteristics, along with the incorporation social justice themes into sermons, are also related to the offering of substance abuse, voter registration and social advocacy programs. This suggests that the structure of worship service and spiritual traditions within churches are significant influences in the offering of socially-oriented programs. Future research should explore how faith leaders may be able to implement offer programs regarding social and community issues, thus increasing the potential for churches to encourage positive health outcomes in Black communities.

Strengths and Limitations

This study is not without limitations. There are approximately 834 Christian churches in Baltimore, Maryland [52]. Sixty-three congregations represent less than 10% of the congregations in the city. Additionally, because the survey was shared digitally through a network of faith leaders, we are unable to determine how many faith leaders were invited and declined. Only two items were available to assess economic stability. More research is needed on the range of financial programs provided in churches and whether congregation size or other congregational and faith leader characteristics are influential in the offering of

these programs. Also, the results of this study are based on reports from faith leaders. Future research should consider expanding this research to include congregants to obtain a more comprehensive understanding of programs offerings and usage.

Despite these limitations, there are several strengths of this study. This paper documents the wide range of programs related to the social determinants of health offered in Black churches in an urban setting. In addition, because we examined the association between congregation size and reported program offering while controlling for other faith leader and congregational characteristics, this study demonstrates that congregation size has a unique influence on programs related to health and education in Black churches. Furthermore, the diversity of faith leaders and congregations represented in this study increases its generalizability to other Black churches in urban settings.

Conclusion

In this study, we sought to investigate the unique contribution of congregational size when considering other factors and across a range of health topics. We demonstrated the extent to which congregations offered programs to address both health and the social determinants of health. Our findings also showed the church size, more than any other faith leader or congregational factor, was related to health and education programs being offered. However, churches of all sizes were equally involved in offering programs related to economic stability and social/community contexts. As public health increasingly engages with Black churches to address health, ensuring that congregations of all sizes are able to meet the needs of their congregations may assist in expanding health equity efforts to these communities.

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 $\label{eq:Table 1.} \textbf{Table 1.}$ Characteristics of Participants and Congregation (N=88)

Variable	N	%
Gender		
Female	53	60.2%
Male	35	39.8%
Race		
Black	83	95.4%
White	2	2.3%
Multiracial	2	2.3%
$Age(M=56.73, SD=11.89)^a$		
21–40	10	11.4%
41–50	8	9.1%
51–60	28	31.8%
61–70	34	38.6%
71+	6	6.8%
Education ^b		
College or less	45	51.7%
Advanced degree (e.g., MDiv, MD, PhD)	42	48.3%
Marital Status ^C		
Single, never married	12	13.6%
Married/Committed relationship	49	55.7%
Other	26	29.5%
Position in Congregation ^b		
<u>Pastoral</u>	<u>49</u>	<u>55.7%</u>
- Senior Pastor	27	30.7%
- Minister	22	25.0%
Non-Pastoral	<u>39</u>	<u>44.3</u>
- Ministry Leader	11	12.5%
- Elders, Stewards, Deacons	9	10.3%
- Administrative	6	6.8%
- Other (e.g., ushers, outreach coordinators, bible study instructors, treasures)	13	14.7%
Baptist	45	51.1%
Non-Baptist	41	46.6%
Congregation Size		
250 or fewer people	55	62.5%
More than 250 people	33	37.5%

^aTwo participants did not provide their age

 $^{{}^{}b}\!\!$ One participant did not provide their education level

 $^{^{\}it C}$ One participant did not provide their marital status

 $[\]ensuremath{^{d}}\xspace$ Two participants did not provide the denomination of their church

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Table 2.

Frequency of Social Determinants of Health Program Offering (N=88)

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Health Program or Service	% Currently Offering					
Health and Health Care						
Alcohol or drug abuse recovery	37.5%					
Health fair	54.5%					
HIV counseling and testing	21.6%					
Mental health	30.7%					
Physical health	48.9%					
Sexual health	31.8%					
Social and Community Context						
Caregiving	34.1%					
Family violence	18.2%					
A food pantry/food donations to families in need	67.0%					
LGBT issues	5.7%					
Neighborhood issues	53.4%					
Parenting issues	35.2%					
Police-community relations	59.1%					
Politics	58.0%					
Race relations	35.2%					
Recreation	44.3%					
Education						
Day care program or school	29.5%					
Religious education for young adults	64.8%					
Tutoring programs and college planning	37.5%					
Economic Stability						
Employment/job training	33.0%					
Personal finance management	37.5%					

 ${\bf Table~3.}$ Odds of Offering Programs to Address Social Determinants of Health by Reported Congregation Size a

A	AOR	95% CI		p			
Health and Health Care							
Alcohol or drug use recovery -	-1.32	-2.54	103	.034			
Health fair -	-1.07	-2.33	.196	.097			
HIV Counseling & Testing -	-1.41	-2.70	122	.032			
Mental Health -	136	-1.22	.951	.807			
Physical health -	036	-1.12	1.05	.949			
Sexual health	.017	-1.08	1.11	.976			
Social and Community Context							
Caregiving -	253	-1.37	.860	.656			
Family violence -	162	-1.49	1.16	.810			
Food pantry .0	.022	135	1.40	.975			
LGBT issues							
Neighborhood issues	.284	791	1.36	.605			
Parenting issues -	503	-1.65	.639	.388			
Police-community relations -	258	-1.40	.887	.659			
Politics -	767	-2.00	.471	.225			
Race Relations	.385	726	1.50	.497			
Recreation -	928	203	.175	.099			
Education							
Daycare program or school -	-2.17	-3.63	694	.004			
Religious education for young adults .5	.879	361	2.12	.165			
Tutoring programs and college planning -	-1.57	-2.74	403	.008			
Economic stability							
Employment/job training -	066	-1.17	1.04	.907			
Personal finance management -	199	-1.25	.853	.711			

aStatistically significant covariates (p <.05) in the univariate models were included in the multivariate model (i.e., denomination, faith leader position and education level).

 $[^]b\mathrm{Sample}$ size too small for faith leaders reporting the presence of programs addressing LGBT issues.