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An examination of culturally relevant health messages in African-American churches

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Abstract

This quantitative study examined the presence of culturally relevant health messages for African Americans based on a preexisting dataset from 21 African-American churches in South Carolina (USA). Content analysis served as the primary methodological approach to code printed media messages based on their cultural relevance among African Americans (Cohen's kappa=.74). Within the dataset (n=2,166), 477 (22%) items were identified as culturally relevant. A low prevalence of culturally relevant messages was found across the three message topics, two media types, and one media source. Due to the limited presence of culturally relevant messages, researchers should collaborate with African-American churches to design health promotion messages.

Keywords

Health promotion; health disparities; diet; physical activity; health communication

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Author Contributions

SMS, AC, and BEH conceived of the study idea. SMS and AC analyzed data. BEH and JRH provided input on analyses and their interpretation. SMS, AC, BEH, and JRH wrote the manuscript.

Competing Interests

The authors declare that they have no competing interests or other conflicts of interest.

Ethics Approval

While this study did not include human subjects, data were collected as part of a larger study which received approval from the Institutional Review Board at the University of South Carolina.

Consent to Participate

This study did not include data from human subjects.

Consent to Publish

This study did not include data from human subjects.

Introduction

African Americans have worse outcomes in comparison to European Americans for almost every indicator of health and well-being (Office of Disease Prevention and Health Promotion, 2020). Life expectancy is also lower among African Americans when compared to non-Hispanic Whites (Schwandt, 2021). African Americans are almost twice as likely to be diagnosed with diabetes as their European American counterparts (U.S. Department of Health and Human Services, 2021). Additionally, research has shown that African-American men are twice as likely to have a stroke compared to European-American men (Centers for Disease & Prevention, 2014). While many contributing factors have been identified as possible causes (Lloyd-Jones et al., 2010), diet and physical activity behaviors are key factors contributing to these health disparities (Lemacks et al., 2013).

Research indicates African Americans may have less healthy diets than European Americans, which may contribute to differences in health outcomes between these groups (Sharma et al., 2014). While there are various factors linked to poorer diets among African Americans, previous studies have highlighted the influence of cultural factors (e.g., cultural identity, shared norms) toward facilitating or undermining healthy dietary behaviors. (James, 2004; Kittler et al., 2011). To address these challenges, researchers have emphasized the significance of implementing culturally-relevant messaging strategies in health campaigns to improve health behaviors among African Americans (Der Ananian et al., 2018; Winham, 2009). The use of culturally-relevant messages may play a key role in reducing health behavior disparities among African Americans.

Individuals' attitudes and beliefs about diet (O'Neal et al., 2012) and physical activity (Blanchard et al., 2008) play an important role in the behavior gaps impacting African Americans. Studies indicate the environments where people live, work, play, and pray have considerable influence on attitude and behavior change (French et al., 2001; Harmon, Kim, et al., 2014; Sallis et al., 2003). Research suggests that upstream factors (e.g., physical and social environment) play an influential role in both health outcomes (Cene et al., 2011) and reduction of health disparities among African Americans (Scott & Wilson, 2011; Shelton, 2011). Communication practices inform these environments (Cohen et al., 2000) and can either hinder or enable healthy behaviors (Cohen et al., 2000). Research has documented communication disparities across social groups (e.g., access to information, political erasure of voices), which can impact health-related outcomes. For example, African Americans have higher exposure to marketing of less nutrient-dense foods in media and outdoor advertising, which has been associated with diet-related health disparities (Grier & Kumanyika, 2008; Henderson & Kelly, 2005; Morland et al., 2002). To more comprehensively understand the interactive effects between individual and environmental influences among African Americans, it is essential to examine the influence of messaging environments. The African-American church is a germane site to examine such environments.

Historically, the African-American church has held a place of spiritual, political, economic, social, and cultural significance (Carter-Edwards et al., 2012). The church continues to maintain relevance within African-American communities with 87% of African Americans reporting they belong to a religious institution (Pew Research Center: Religion & Public

Life, 2009). The African-American church has unified congregations and communities towards mutual support, goals, values, and beliefs that are grounded in religious tradition and reinforce a sense of family and community cohesiveness (Brashears & Roberts, 2018; Lincoln & Mamiya, 1990). This history of fostering strong supportive social networks has allowed African Americans to feel a sense of belonging and an improvement in their psychological well-being (Chatters et al., 2002; Hope et al., 2019).

In addition, churches often serve as the first source of health promotion in African-American communities (Berkley-Patton et al., 2020; Goldmon & Roberson Jr, 2004; Lancaster et al., 2014; Sattin et al., 2016), and are popular partners for health promotion programs and research studies (Flegal et al., 2002; Resnicow et al., 2009; Stecker et al., 2006). Many African-American churches now incorporate a health ministry (Erwin, 2002), and are effective conduits for intervention efforts, including cancer screening, blood pressure control, weight loss programs, cholesterol education, smoking cessation, diabetes education, stroke prevention, physical activity, and nutrition education (Yanek et al., 2001). These efforts allow African-American churches to impact individual and environmental factors related to health (Cohen et al., 2000; Harmon, Blake, et al., 2014; McLeroy et al., 1988).

Research suggests health-related messaging can improve health behaviors when included in interventions implemented with African-American churches (Berkley-Patton et al., 2020; Derose et al., 2019; Ralston et al., 2020). The use of written health-related messages specifically as a means of promoting healthy lifestyle choices within congregations has also be examined (Beck et al., 2007; Harmon et al., 2016; Harmon, Kim, et al., 2014). Harmon and colleagues found flyers, church handouts, and other written health-related messaging within African-American churches incorporated themes related to diet (e.g., promoting a healthy diet, food access), physical activity (e.g., praise, sports), and health care (i.e., screening, medical services, health insurance) (Harmon, Blake, et al., 2014; Harmon, Kim, et al., 2014). However, they also found the disease focus of these messages did not always reflect areas of high mortality within African-American communities (Harmon et al., 2016). Ensuring health-related messages are relevant to the congregations and communities served by African-American churches is important if they are to be effective.

Qualitative research on the effectiveness of health messaging within faith settings has primarily focused on the perspectives of leaders (Lumpkins et al., 2013; Webb et al., 2013) or the creation of programs and messages that target a specific sub-group or health behavior (Bopp et al., 2007; Vu et al., 2018). Themes found across this literature include the endorsement of health messages by faith leaders and the incorporation of scripture that emphasizes health (Bopp et al., 2007; Lumpkins et al., 2013; Vu et al., 2018; Webb et al., 2013). Several studies have noted a need to incorporate culturally-relevant messages, but primarily within the context of denomination or faith culture (Vu et al., 2018; Webb et al., 2013). Only a few qualitative studies of health messaging have focused on African-American communities (Bopp et al., 2007; Lumpkins et al., 2013).

Though research indicates African-American churches are places with potential for great influence on diet and physical activity behaviors (Tussing-Humphreys et al., 2013), creating culturally-specific behavior change messages is also believed to be important for disease

prevention (Farmer et al., 2018). In health communication and public health, one popular approach used to customize health messages is message targeting, which draws on shared characteristics of population groups (e.g., race, culture) (Kreuter et al., 2003; Schmid et al., 2008). In this context, culturally-relevant messaging refers to characteristics given to an individual or community's culture, language, and appearance (Taylor et al., 2002) and is based on relevant and accessible information (Uskul & Oyserman, 2010).

Traditional public health interventions employ dominant conceptual models (Betsch et al., 2016). Within these frameworks, culture is seen as a barrier to commitment, indicating more research is needed on the role of cultural relevance and intervention adherence (Grandpierre et al., 2018). Paradigms such as identification theory may help explain how culturally-relevant messaging reduce health disparities (Archibald, 2011; Castro et al., 2010). Identification theory posits that individuals who identify with a specific ad or communication campaign will be more willing to adhere to that campaign's objective or aim (Kelman, 1968). When individuals perceive a message possesses a specific characteristic similar to their own, they begin to infer other aspects of the message also will relate to them and be in their best interest (Feick & Higie, 1992). In most health promotion literature, messaging strategies that promote diet or physical activity behavior change emphasize one-way communicative strategies and universal approaches, which limit the ability of many, especially those in racial/ethnic minority groups, from identifying with the behavior change messaging thus limiting their engagement in the targeted behavior (Betsch et al., 2016).

While the study of health promotion efforts within churches is growing, there is limited literature examining messaging in these settings that exclusively target African-American congregation members' health behaviors. This study examined the presence of culturally-relevant health messages among a group of African-American churches in South Carolina. Specifically, the study analyzed the frequency of culturally-relevant messages and their association with message topic (i.e., diet, physical activity, and healthcare access), media type (i.e., newsletter, magazine/newspaper, bulletin), and media source (i.e., church, national organization, local organization).

Methods

Data collection:

Data were obtained from a larger randomized controlled trial of a faith-based intervention aimed at changing the diet, physical activity, and stress-related behaviors of African American churchgoers in order to impact systemic inflammation (Hebert et al., 2013). Between 2009 and 2012, a total of 21 African American churches in South Carolina participated in this study. Prior to all recruitment and data collection, the Institutional Review Board at the University of South Carolina approved all procedures.

Findings based on messaging data have been published elsewhere (Harmon, Blake, et al., 2014; Harmon et al., 2016). In brief, data were collected between June 2010 and June 2013 from 21 predominately African-American churches in four counties surrounding Columbia, South Carolina. Churches were predominately Baptist (n=15) or Methodist (n=5), ranged in congregation size (> 350 members = 9, 101–350 members = 9, ≤ 100 members = 3), and

were from rural (> 20 miles from city center = 6) and urban (≤ 5 miles from city center = 9, 6–20 miles from city center = 6) areas (Harmon, Blake, et al., 2014; Harmon et al., 2016).

Staff members, with help from a church liaison, collected health-related printed media items (i.e., posters, flyers, booklets) during three-time points in each church's year of study participation (baseline, six months and one year). Data collection consisted of taking pictures and collecting copies of items available to congregation members over a two-month period at each time point. The church liaison assisted by collecting data using a folder, which included data collection instructions. For the present analysis, items were pooled across time points and study arms as the larger study's intervention would not have influenced the cultural relevance of messages and previous analyses have found little difference between study arms and across time points (Harmon, Blake, et al., 2014; Harmon et al., 2016; Harmon, Kim, et al., 2014).

Coding

Codes were developed to determine whether or not an item was culturally relevant for African Americans. A review of the literature provided an initial list of codes (Cantey et al., 2013; Gay, 2007; Nollen et al., 2007; Perry & Delpit, 1998; Resnicow et al., 1999; Resnicow et al., 2009; Stewart et al., 2008; Tirodkar & Jain, 2003). The literature review also led to the operationalization of items being coded as either "culturally-relevant" or not "culturally-relevant." After training and reviewing 10% of the study sample, the research team reviewed the printed messages to determine if they could be classified as being culturally relevant (see section below). Next, the team then identified and defined categories related to cultural relevance to further verify that the chosen messages met the eligibility criteria. Each of these steps were key in developing and finalizing the codebook (see Table 1 for the final codebook).

Identifying and defining categories of cultural relevance

Any printed materials with the terms "African American" and/or "Black" were considered to be culturally-relevant. Holidays that are commonly celebrated within the African-American community (i.e., Kwanzaa, Juneteenth, etc.) (Gay, 2007), were also considered to be culturally-relevant. It was also agreed upon that if the printed materials referred any historically black colleges/universities or organizations which focus on promoting social justice among African Americans (i.e., the National Association for the Advancement of Colored People or NAACP), they would be coded as being culturally-relevant given their influence within the African-American community (Cantey et al., 2013; Stewart et al., 2008). Lastly, common colloquial terms within the African-American community (i.e., "sista" and "brotha") (Perry & Delpit, 1998), were coded as culturally-relevant when identified. Two of the authors (both of whom identify as being of African descent), were responsible for coding all messages and used the final codebook to code items as either "culturally-relevant" or not. A randomly selected double-coded sample of approximately 15% (n=333) of the dataset was coded to test the reliability of the created codebook. The calculated interrater reliability (Cohen's κ) was 0.74.

Previously developed codes for message topic, media type, and media source were used in this analysis (Harmon, Blake, et al., 2014; Harmon, Kim, et al., 2014). Additionally, previous analyses identified frequent message topics, media types, and media sources in the dataset (Harmon, Blake, et al., 2014; Harmon, Kim, et al., 2014). Therefore, the final printed messages were categorized by frequent topics (i.e. diet, physical activity, and healthcare access), media types (i.e., flyers, booklets/brochures, bulletins), and media sources (i.e., church made, local health organizations, national health organizations) (Harmon, Blake, et al., 2014; Harmon, Kim, et al., 2014).

Analysis

All data were analyzed using SPSS® (v. 22.0) (IBM Corp, 2013). For message topic, media type, and media source, Pearson's chi-squared tests examined the presence of "culturally-relevant" messages in each topic, type, and source versus all other topics, types, and sources (e.g., were more diet messages culturally relevant compared to all other message topics). Statistical significance was set at $\alpha<.05$ (two-tailed).

Results

Of the 2,166 items in the dataset, 477 (22%) were coded as "culturally-relevant" to African Americans. Table 2 contains the descriptive statistics for culturally relevant messages by church demographics, message topic, media type, and media source in the dataset.

Message topics

Diet-related messages made up 48% (n=229) of all culturally relevant messages. Culturally-relevant messages were also seen in 39% (n=188) of physical activity messages and 33% (n=158) of the healthcare access-related messages. Statistically significant associations were seen between the overall health messaging topics and diet (χ^2 (1, N=2166) =6.07, p=.01), physical activity (χ^2 (1, N=2166) =51.93, p<.0001), and healthcare access messaging (χ^2 (1, N=2166) =17.57, p<.0001).

Media type

Of the culturally relevant messages, 33% (n=158) were coded within flyers, 24% (n=116) in booklets/brochures, and 11% (n=50) in bulletins. The presence of less culturally relevant messages was statistically significant for flyers (χ^2 (1, N=2,166) =9.05, p=.003) and bulletins (χ^2 (1, N=2,166) =6.25, p=.01), but not for booklets/brochures (χ^2 (1, N=2,166) =1.093, p=.30) when these media types were compared to all media types present in the dataset.

Media source

Church-made items encompassed 36% (n=170) of all culturally relevant messages. Among items produced by local health organizations, 13% (n=63) were culturally relevant. It was also observed that 14% (n=65) of culturally relevant items were produced by national health organizations. A significant association was observed between local health organizations (χ^2 (1, N=2,166) =4.40, p=.04) when compared to all other media sources. No statistically

significant association was observed for church-made items (χ^2 (1, N=2,166) =2.327, p=.13) or items produced by national health organizations (χ^2 (1, N=2,166) =.004, p=.95).

Discussion

The purpose of this study was to determine the prevalence of culturally-relevant health messages within a sample of printed media from African-American churches in South Carolina. Based on our analysis, most health messages were not culturally-relevant to African Americans. Of the 2,166 items, only 22% were coded as culturally-relevant. The lack of culturally-relevant health messaging in African-American churches may contribute to church environments and health promotion initiatives that are less influential on congregation members' behaviors (Berkley-Patton et al., 2020; Campbell et al., 2007; Sattin et al., 2016).

When topics related to diet, physical activity, and healthcare access were examined within printed messages, a higher percentage of messages were not culturally-relevant versus culturally-relevant, and this difference was statistically significant compared to all health messages in the dataset. This finding indicates African-American churches have a low prevalence of printed health messages with African American representation (i.e., words, phrases, images reflective of African American culture/history), which reduces the potential impacts of these messages. Studies in other settings indicate culturally-relevant messages are essential for engaging members of African-American communities in healthy behavior choices (Javier et al., 2018; Muvuka et al., 2020; Wallington et al., 2018). Culturally-relevant print messages (e.g., newsletters, postcards, magazines) within faith-based settings have been most effective when embedded into a larger health promotion initiative (Berkley-Patton et al., 2020; Derose et al., 2019; Ralston et al., 2020). Studies, across settings, that used only print health messaging had moderate success, but provide guidance on effective strategies for incorporating cultural identity (Kreuter et al., 2005; Resnicow et al., 2009; Van Duyn et al., 2007).

These studies note targeting messages may be difficult, requiring reaching out to specific racial/ethnic subgroups (Resnicow et al., 2009), or focusing on both behavioral constructs and cultural constructs (Kreuter et al., 2005). When creating materials for African-American churches, spiritual targeting has been noted as important (Goldmon & Roberson Jr, 2004). With this focus on aligning messaging with spiritual tenets, creating culturally-relevant messages is perhaps forgotten or overlooked by researchers and others creating health messages for congregations. Working with public health organizations and churches on inclusion of culture in print messaging is an important next step in faith-based health promotion initiatives.

While the most prevalent types of media in the dataset were flyers, booklets/brochures, and bulletins, a low prevalence of culturally-relevant messaging were found in these media types compared to all types of media in the dataset. Previous studies have observed these types of media messages are commonly used within African-American churches to promote positive behavior chances (Baruth et al., 2008; Wang et al., 2013). However, the cultural relevance of messages in past research is unknown.

The prevalence of culturally-relevant messages was low in materials produced by local health organizations, national health organizations, and churches or religious organizations. Examples exist of national health organizations collaborating with churches to reduce health disparities, such as stroke, within the African American community (Campbell et al., 2007; Resnicow et al., 2004; Tussing-Humphreys et al., 2013). Expanding these efforts nationally as well as replicating them at a local level (i.e., with state health departments) may be an effective strategy for increasing the amount of culturally-relevant health-related messaging within African-American churches. Of the most common sources of messages, those produced by the church would be expected to be culturally-relevant. However, as noted above, churches may overlook the inclusion of cultural relevance when developing print messages. It is important for public health professionals and faith leaders to work together towards creating messages that resonate with African-American congregation members.

The use of community-based participatory research (CBPR) approaches (Israel et al., 2005) could benefit this area of research and practice. CBPR is a partnership approach to research in which both academic and community members work together to find solutions for community needs (Israel et al., 2005). The nine principles of CBPR outline a process whereby researchers and community members form a collaborative, equitable, and empowering partnership from problem identification through dissemination of findings (Israel et al., 2005). Formation of initiatives that include public health professionals, faith leaders, and congregation members in the development and testing of culturally-relevant health messages could help increase their prevalence and impact. Previous studies have found CBPR approaches are effective in helping African-American religious organizations encourage healthy behavior choices (Brewer, Morrison, et al., 2019; Campbell et al., 2007; Hankerson et al., 2018; Yeary et al., 2011). Using CBPR approaches within faith-based settings has been shown to increase satisfaction with programs, help identify acceptable communication channels, and overcome community distrust (Brewer, Morrison, et al., 2019; Hankerson et al., 2018; Israel et al., 2005).

Previous CBPR initiatives have identified messages from faith leaders as an important source of messages. Faith leaders have historically played a significant role in encouraging members of their congregation to engage in healthy lifestyle choices (Baruth et al., 2015; Bopp et al., 2013; Harmon et al., 2018). Having leadership’s support, often demonstrated through their presentation of health messages from the pulpit, appears to be impactful in creating behavior change (Baruth et al., 2008; Berkley-Patton et al., 2020; Bopp et al., 2009; Campbell et al., 2007). The impact of pastor-delivered health messages may be due in part to their historical roles as community leaders (Harmon et al., 2018). Moreover, pastors and other faith leaders share similar socio-cultural characteristics (e.g., race, cultural norms) with their congregants, which promotes high levels of trust (Levin, 1986; Lumpkins et al., 2013). This explanation aligns with the core constructs of identification theory (Feick & Higie, 1992). Further, previous research has illustrated the importance of oral traditions (e.g., story telling, songs, proverbs) in African-American culture (Hamlet, 2011). In addition to printed health-promotion materials, churches can employ similar techniques (e.g. ancient sayings, proverbs, other cultural products that have not been recorded or written down) to create tangible solutions and impact health inequalities (Hamlet, 2011).

Mobile technology is a messaging channel being used with increasing frequency by African-American churches as a tool for providing health messages (Berkley-Patton et al., 2020; Brewer, Hayes, Caron, et al., 2019; Derose et al., 2019; Joseph et al., 2015). However, few mobile health (mHealth) initiatives have been designed for African-American communities or congregations (Brewer et al., 2018). While mHealth initiatives, including text, phone and social media messages, may prove successful within faith-based settings (Brewer, Hayes, Jenkins, et al., 2019; Joseph et al., 2015), more research is needed on how to incorporate culture into these messages to aid in behavior change (Brewer, Hayes, Caron, et al., 2019).

Study Limitations

One limitation of this study is that only printed media items were obtained and analyzed. A more comprehensive examination of the messaging environment within African-American churches (e.g., social media, interpersonal networks, verbal messages such as those from the pulpit, and non-verbal communication) is needed. This future research can help us better understand factors that might inhibit individuals receiving health information and learn what type of messaging (i.e., printed or oral) is preferred.

A second limitation is that the study included predominately Baptist and Methodist churches thus findings are not generalizable to other Christian denominations or other faith traditions. Additionally, congregation members' demographic information was not collected (i.e., age, gender, attendance). This additional demographic information may further influence the creation and dissemination of culturally-relevant messages within churches. More research on the presence of culturally-relevant messages among churches from various denominations and demographic characteristics of the congregation members is recommended. Nevertheless, this study is one of the first to examine the presence of culturally-relevant messages within faith-based settings. Therefore, findings provide insight into the need for health communication researchers, public health professionals, and African-American churches to work together to design more effective faith-based health promotion messages.

Conclusion

This study found few health-related messages that were culturally-relevant to African Americans. Public health professionals and faith leaders can provide insight into how to combine messages of behavior change that are spiritually and culturally-relevant for African-American congregations. Continued research is needed to examine the most effective ways to craft health messages within faith-based messaging environments.

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Table 1.

Codes that Define Culturally Relevant Health Message

When messaging items met any one of the following criteria, they were coded as "culturally relevant"* and received a 1: (Cohen's κ: 0.74, Range: 0–47)

- Contained pictures with two or more individuals of African-American descent
- Were a magazine or newsletter published specifically for African-American communities in South Carolina:
  - Black News
  - Midlands Live
  - Panorama
  - IMARA
- Used the terms "African-American" or "Black"
- Used the following language or phrases indicative of the African-American culture:
  - Soul Food
  - Martin Luther King Day
  - Juneteenth
  - Kwanzaa
  - Benedict College (a Historically Black College/University)
  - South Carolina State (a Historically Black College/University)
  - Allen University (a Historically Black College/University)
  - National Association of the Advancement of Colored People (NAACP)
  - "Sista/Brotha"

* The items coded within the culturally relevant category were based on reviewing previous literature (Cantey et al. 2013; Gay 2007; Nollen et al. 2007; Perry and Delpit 1998; Resnicow et al. 1999, 2009; Stewart et al. 2008; Tirodkar and Jain 2003)

Table 2:

Frequency of Culturally Relevant and Non-Culturally Relevant Messages Based on Topic, Media Type, and Media Source

Variable	Culturally Relevant Messages (n=477) n(%)	p-value*
Message Topic**		
-Diet	229(48)	.01
-Physical Activity	188(39)	<.0001
-Healthcare Access	158(33)	<.0001
Media Type**		
-Flyers	158(33)	.003
-Booklets/Brochures	116(24)	.30
-Bulletins	50(11)	.01
Media Source**		
-Church Made	170(36)	.13
-Local Health Organization	63(13)	.04
-National Health Organization	65(14)	.95

*Pearson chi-square tests 2-tailed p<.05

**The comparisons examined were the percentage of culturally relevant messages in one topic, type, or source compared to all other topics, types, and sources