### Title

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### Authors

Payán, Denise D
Flórez, Karen R
Williams, Malcolm V
et al.



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# Sermons to Address Obesity in Partnership With African American and Latino Churches

Denise D. Payán, PhD, MPP[1]; Karen R. Flórez, DrPH, MPH[2]; Malcolm V. Williams, PhD, MPP[3]; Clyde W. Oden, OD, MPH, MDiv[4]; Michael A. Mata, MA, MDiv, MCP[5]; Cheryl A. Branch, MS[6]; Margaret D. Whitley, MPH[3]; Kathryn P. Derose, PhD, MPH[3,7]

## INTRODUCTION

African American and Latino communities are disproportionately affected by obesity and diet-related diseases in the US.[1] Faith-based organizations can be important partners in promoting health among African American and Latino congregants through infrastructure, programming, and strong social networks.[2,3] Clergy, in particular, can provide public health information and promote healthy behaviors using their moral authority, visibility, and credibility.[4–6]

Health interventions that engage clergy can impact multiple levels in the socioecological model.[7] Clergy can help individuals overcome intrapersonal barriers to healthy eating and physical activity by motivating and empowering them through role modeling and social support. They can also help improve social and built environments to encourage health-promoting behaviors among congregants and the community.

Integrating health messages into church sermons can leverage existing trust and shared values to reach vulnerable groups. A potential advantage is that sermons can target multiple levels of the socioecological theory[8] and may help to address key intrapersonal barriers to healthy living—such as lack of motivation[9]—through interpersonal influence. Clergy may also be better positioned to deliver health promotion messages to congregants than external facilitators[2] as trusted messengers and health promoters at the intersection of health and spirituality.[4] Limited faith-based health interventions describe integrating health messaging into sermons or evaluate implementation.[2,3,6] Although most prior sermon interventions have been conducted in Judeo-Christian congregations, recent work in other faith communities (Muslim) indicates it is feasible and acceptable more broadly.[10]

This article presents a detailed description of the development and implementation of healthy eating and physical activity sermons that were part of a multicomponent, church-based intervention for African American and Latino congregants in Southern California. The pilot evaluation used a cluster-randomized controlled trial in which churches (n = 6) were randomized to an intervention or waitlist (control) group. About 6 months after baseline data were collected, intervention participants demonstrated statistically significant less weight gain, greater weight loss, lower body mass index scores, and healthier diets.[11] This article describes the sermon component, provides implementation evaluation results and discusses implications for research and practice.

## INTERVENTION DEVELOPMENT AND SERMON GUIDE DESCRIPTION

The research team developed the faith-based intervention (Eat, Pray, Move) in collaboration with a multiethnic faith and public health partnership using a community-based participatory research approach. Two midsized (> 200 congregants) African American churches (Baptist, nondenominational) and a large Latino Roman Catholic church (> 2000 congregants) were randomized to receive the intervention. A detailed description of the study outcomes and other components are available elsewhere.[11–13]

A 12-page sermon guide (Developing Sermons on Healthy Eating and Active Living) was developed by the research team and Steering Committee. The Steering Committee included 12 faith leaders, 2 public health leaders, and 3 public health

[1]Department of Public Health, School of Social Sciences, Humanities and Arts, University of California Merced, Merced, CA
[2]Department of Environmental, Occupational, and Geospatial Health Sciences, Graduate School of Public Health and Health Policy, City University of New York, New York, NY
[3]RAND Corporation, Santa Monica, CA
[4]Bethel African Methodist Episcopal Church, Oxnard, CA
[5]Azusa Pacific Seminary, Los Angeles, CA
[6]Los Angeles Metropolitan Churches, Los Angeles, CA
[7]Department of Health Promotion and Policy, School of Public Health and Health Sciences, University of Massachusetts Amherst, Amherst, MA

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Address for correspondence: Denise D. Payán, PhD, MPP, Department of Public Health, University of California Merced, 5200 N Lake Rd, Merced, CA 95343;
E-mail: dpayan@ucmerced.edu

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researchers and was co-chaired by African American and Latino clergy. The guide contained publicly available evidence-based healthy eating and physical activity information, recommendations for action, and sample sermons with biblical references (Supplementary Data). The 4 overarching themes in the guide included project awareness, obesity awareness and policy context, healthy eating prompts, and active living prompts. The guide was developed in English and not translated because clergy at the Latino intervention church were bilingual with fluency in English. Table 1 provides the key themes in the guide and specific objectives.

Pastors from the 3 intervention churches were asked to deliver 2 sermons that included healthy eating and physical activity messages over 5 months. The purpose was to motivate congregants individually and collectively to address obesity and diabetes disparities through nutrition education and physical activity programs, policy, and community advocacy. Research staff met with each pastor to review the sermon guide and address any questions. Pastors were encouraged to tailor the sermon according to their style, content, and religious traditions to facilitate implementation.

## EVALUATION

Pastors and church liaisons notified the research team when intervention sermons were scheduled. Because multiple services were held at each church on the weekend, research staff attended all Sunday services at each institution to collect data. Research staff audio recorded sermons and took detailed notes using an adapted version of a systematic religious observation questionnaire[6,14] to gather information on attendance, message duration, and fidelity. Audio recordings were transcribed verbatim and analyzed by the lead author using an inductive approach.

Between December 2015 and April 2016, 5 unique sermons were delivered across the 3 churches. The Latino church pastor only delivered 1 sermon because he relocated in early 2016. Each sermon was delivered twice in the African American churches, whereas the same sermon in the Latino church was delivered by a bilingual clergy at 4 services (2 English and 2 Spanish). Although sermons in the Latino church reached the most congregants (on average and overall), sermon duration was considerably shorter than other churches, in part because of sermon length differences across faith traditions. Table 2 provides implementation results by intervention church and overall.

Assessing fidelity consisted of verifying if a sermon addressed 11 guide objectives. Sermons delivered at the Latino church met the fewest objectives (4% or 36%), whereas those delivered in the African American churches met >50% (range, 6–10). The nondenominational church pastor demonstrated the highest fidelity among participating clergy and was the sole leader to speak about the role of the broader environment, describing concepts like food deserts.

There was high fidelity across the churches (ie, clergy from all 3 churches met the objective at least once during a sermon) to the following objectives: mentioning church activities, sharing a personal story, and talking about the benefits of healthy eating/active living. Personal narratives were a common strategy used by all clergy. They referenced their own weight loss struggles and childhood memories of food, including cultural tendencies to use unhealthy food to reward behavior or accomplishments. Pastors also mentioned benefits to healthy eating and physical activity, like reduced chronic illness risk and improved quality of life. All pastors emphasized social support as a key facilitator for positive influence and accountability, prompting congregants to support and encourage one another in their efforts to improve their dietary behavior and increase their physical activity levels.

Nearly all other objectives had moderate fidelity and were met by at least 1 clergy in 2 of the 3 churches. The sole objective with low fidelity consisted of mentioning supportive health education components. Refer to Table 1, which also includes fidelity results across churches and example quotes from the clergy.

Beyond the specific objectives from the sermon guide, clergy included faith-based strategies to overcome lack of motivation, such as the following quote from the nondenominational church pastor: "Activate your faith. Pray to God, 'this is my goal that I would like to be healthy. I want to see my grandbabies graduate.'" He then referenced 2 bible verses from the guide (Psalms 139:13–18; Philippians 4:13). The Baptist pastor similarly used prayer to motivate and encourage congregants: "Father help us to value our health, in the name of Jesus, we want to be healthy. We want to be strong."

## DISCUSSION

Embedding health messages into sermons is a promising avenue to reach Latinos and African Americans. Results indicate clergy were receptive to delivering healthy eating and physical activity sermons from the pulpit—adding to nascent work describing and evaluating sermons as health interventions.[6,15] Sermon interventions have several advantages because they center existing trustworthy sources of information in communities of color and do not have financial cost for implementation.

Guide fidelity varied by clergy with the highest fidelity to 3 objectives, including sharing a personal story about healthy eating/active living. This result is supported by a qualitative study investigating African American clergy perceptions about health promotion that found personal storytelling to be a popular communication method.[4]

## IMPLICATIONS FOR RESEARCH AND PRACTICE

Strategies to improve fidelity include assessing readiness for participation or offer refresher training if there is a

**Table 1.** Sermon Guide Themes, Specific Objectives, Fidelity across Churches, and Example Quotes

| Theme | Specific Objective | Fidelity[a] | Example Quote |
|---|---|---|---|
| Project awareness | 1 Mention church activities to promote healthy eating or active living | High | "[Coordinator] is already doing this with our community garden and yoga classes" (Catholic Latino church) |
| | 2 Discuss why the church is involved in this effort | Moderate | "We've got to find out the Bible's view of the issue of health and physical fitness" (Nondenominational AA church)<br>"We'll be learning together about healthier eating, healthier habits, and good exercise. 'Why do that in a church?' you ask. Because this is where health begins and ends" (Catholic Latino church) |
| | 3 Mention supportive health education components (eg, bulletin inserts, posters) | Low | – |
| | 4 Share the date of any upcoming activities | Moderate | – |
| Obesity awareness and policy context | 5 Talk about how obesity or obesity-related diseases are affecting African American and/or Latino communities | Moderate | "I want to start out by sharing some health disparity statistics for our community. . .heart disease is the leading cause of death for African Americans. Among non-Hispanic Blacks age 20 and older, 46% suffer from cardiovascular disease" (Nondenominational AA church)<br>"70% of African American neighborhoods and 81% of Latino neighborhoods lack recreational facilities compared to 38% of white neighborhoods" (Baptist AA church) |
| | 6 Talk about the importance of policy and program advocacy | Moderate | – |
| Healthy eating (a) or active living (b) prompts | 7 Share a personal story about:<br>a Healthy eating<br>b Active living | High | "My family rewarded everything from good behavior to good grades to sports achievements with food. And we grew and grew...birthdays were cakes and ice-cream, right? You did well on a test, you got pizza or McDonalds" (Catholic Latino church)<br>"My doctor told me, 'you need to lose 40 pounds. . .you are overworking your body and you have extra weight on your body. My concern with you is you will drop dead from a massive heart attack without warning'" (Baptist AA church) |
| | 8 Talk about the role of the:<br>a Community food environment<br>b The built and social environment | Moderate | "One thing our community suffers from is what they call 'food deserts.' A food desert is where you have stores and markets that may not have the best meat or freshest vegetables. A food desert is where a community lacks nutritious options" (Nondenominational AA church)<br>"It is a challenge in our community—unhealthy foods are cheaper than healthy, organic food" (Baptist AA church) |

(continued)

**Table 1.** (*Continued*)

| Theme | Specific Objective | Fidelity[a] | Example Quote |
|---|---|---|---|
| | 9 Mention:<br>a The connection between food consumption decisions and values (ie, environmental stewardship, social justice, respect, sustainability)<br>b Importance of encouragement and support to exercise | Moderate | "God wants you to be a good steward over your body." (Nondenominational AA church)<br>"Get yourself together, get your children together, get your grandchildren together, and get out there and do something. Walk in your neighborhood. Jog for 30 minutes." (Baptist AA church) |
| | 10 Talk about the benefits of:<br>a Healthy eating<br>b Active living | High | "There are physical benefits, it lowers your risk of heart disease, the top killer of African Americans. Physical activity will lower your blood pressure. It will help with your diabetes. It will help with obesity that produces back pain." (Baptist AA church) |
| | 11 Mention any of the following topics:<br>a Fruits and vegetables, whole grains, fat, sodium, sugars<br>b Recommended amounts and/or different types of physical activity | Moderate | "Find something you can do. Walking, yoga, Zumba." (Nondenominational AA church) |

AA indicates African American.
[a]Fidelity was categorized as high if clergy from all 3 churches met the objective at least once during a sermon; moderate if clergy from 2 churches met the objective at least once during a sermon; low if clergy from only 1 church met the objective at least once during a sermon.

time lag between the initial overview of the intervention and delivery of a sermon. A larger evaluation trial could also assess the impact of the sermon intervention on the nutrition and physical activity knowledge, attitudes, and behaviors of participating clergy.

Researchers and practitioners can consider developing and testing different health messaging approaches in partnership with clergy, including addressing other health issues or different types of messaging (eg, personal stories compared with data about how an issue is affecting the community). An intervention study in Peru included a brief standardized message delivered by priests to reduce soda consumption with modest significant effects.[15]

Inviting clergy who will deliver the sermon, lay faith leaders, or congregants to help develop specific healthy eating and active living messages may increase their relevance to a particular congregation and/or faith community. Future research can focus on collecting data from congregants on the acceptability of sermon interventions and messaging, which were not included in this evaluation.

## NOTES

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**Table 2.** Healthy Eating and Physical Activity Sermon Implementation Results by Church and Overall (n = 3 churches)

| Measures | Latino Catholic Church | African American Baptist Church | African American Nondenominational Christian Church | Overall |
|---|---|---|---|---|
| Average and range of church attendance per service | 210 (70–350) | 37 (23–50) | 64 (50–92) | 82 (23–350) |
| Participating clergy | 1 | 1 | 1 | 3 |
| No. of unique sermons delivered | 1 | 2 | 2 | 5 |
| No. of church services impacted | 4 | 4 | 4 | 12 |
| Average and range of intervention sermon length in minutes | 12 (11–12) | 37 (33–40) | 41 (30–51) | 33 (11–51) |

Note: Values are n (%). Data reflects observational data collected at 10 of 12 services held across the churches.

## SUPPLEMENTARY DATA

Supplementary data related to this article can be found at https://doi.org/10.1016/j.jneb.2021.04.469.

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