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# Process Evaluation of a Peer-Driven, HIV Stigma Reduction and HIV Testing Intervention in Latino and African American Churches

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## Abstract

**Purpose:** Faith-based organizations may be effective in addressing HIV-related disparities, but few interventions have been implemented across diverse churches. The Facilitating Awareness to Increase Testing for HIV (FAITH) intervention harnessed peer leadership to decrease HIV stigma and promote HIV testing in African American and Latino congregations. A pilot study found more consistent effects among Latino congregations. This process evaluation evaluates implementation of FAITH to better understand the pilot study's findings.

**Methods:** Data sources included HIV education and peer leader workshop evaluation forms, participant views of the community's perspective of HIV, and peer leader follow-up interviews. Data were triangulated with systematic observation notes and analyzed using process-related themes of recruitment, reach, context, implementation, dose-delivered, and fidelity.

**Results:** At the Latino churches (compared to the African American church), facilitators spent more time addressing community-based misconceptions about HIV. The peer leader model was well received, especially among Latino participants, and most said that after the workshop they felt comfortable speaking with others about HIV-related topics. Latino peer leaders reported speaking with up to 20 people within their social networks (particularly with family members); African Americans reported up to 4. Implementation challenges at the African American church may have contributed to the limited intervention effects. Nevertheless, we found the peer motivator model feasible and acceptable across diverse faith settings.

**Conclusion:** Peer-based models within faith settings are promising for addressing HIV. However, differences among groups in HIV knowledge, social network characteristics and norms, and church preferences may influence overall effectiveness.

**Keywords:** HIV/AIDS; process evaluation; African Americans; Latinos

## Introduction

Latinos and African Americans have disproportionately high HIV incidence, morbidity, and mortality rates and less access to HIV treatment and care services compared to other racial/ethnic groups in the United States.<sup>1</sup> They are also disproportionately impacted by factors that increase HIV vulnerability,

including poverty, limited healthcare access, discrimination, acculturation processes, higher community prevalence of other sexually transmitted infections, and detrimental HIV-related attitudes (e.g., homonegativity).<sup>2-6</sup>

Church-based interventions targeting HIV-related stigma may be an effective strategy to increase HIV

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education and screening among African American and Latino communities and reduce HIV-related disparities<sup>7</sup> since churches have long been recognized as trusted sources in these communities and are important sources of social capital and information to individuals throughout the lifecourse.<sup>2,8,9</sup>

Most church-based HIV interventions have solely focused on African Americans despite the fact that Latinos also are disproportionately affected by HIV and exhibit high church attendance rates.<sup>10</sup> Thus, little process evaluation research exists that explores implementation of church-based HIV interventions with Latinos and elucidates differences in implementation between these two disparity groups. Addressing this gap is particularly important given the increasing diversity in many urban settings. For example, in Los Angeles (the location of the present study), many disparity communities have shifted over the last 30 years from being predominantly African American to increasingly Latino. This diversification of the urban landscape requires interventions that can be implemented across diverse faith settings and with multiple disparity groups.

Several other process-related aspects of church-based interventions are important, including a better understanding of individual participants' reactions to interventions and whether they share information with other congregants. One consistently noted advantage of church-based interventions is the naturally occurring social networks through which peer leaders can model behavior, influence attitudes, and share information.<sup>11</sup> Indeed, several small pilot studies have shown that peer-led health interventions at churches can influence many health behaviors among congregants.<sup>12-14</sup> However, very little is known about the feasibility and acceptability of a peer-led HIV intervention in a nonclinical setting<sup>15</sup> or the lessons learned from implementing such a program across different racial/ethnic groups and religious denominations.

To fill this gap, we conducted a process evaluation of Facilitating Awareness to Increase Testing for HIV (FAITH), a multifaceted, congregation-based intervention piloted in a cluster randomized controlled trial with two African American churches and three Latino churches in Los Angeles County. The intervention was developed using community-based participatory research (CBPR)<sup>16</sup> through which public health and faith-based partners were involved in all phases of the research, including extensive formative research that

identified key elements of successful HIV-related programs across different faith-based settings.<sup>17-22</sup> Drawing from these findings and social psychological stigma reduction theories,<sup>23</sup> we developed the multi-component intervention. Results from our pilot study found that, at the church level, the intervention reduced HIV stigma and HIV mistrust among the Latino churches and increased HIV testing across the African American and Latino churches.<sup>24</sup> Specifically, the Latino Catholic intervention church experienced a decrease between baseline and follow-up in both HIV stigma and HIV mistrust (effect size change = -0.16; 95% confidence interval [CI] -0.25 to -0.06 for HIV stigma; -0.15 for HIV mistrust; 95% CI -0.24 to -0.05). Similarly, the Latino Pentecostal intervention church experienced a significant decrease in both outcomes between baseline and follow-up (effect size change = -0.38 for HIV stigma; 95% CI -0.71 to -0.05; -0.56 for HIV mistrust; 95% CI -0.86 to -0.27). For the African American Baptist intervention church, there were significant changes between baseline and follow-up in terms of HIV testing, but no significant change regarding HIV stigma or HIV mistrust. Taken together, these findings provide evidence that church-based interventions have the potential to reduce HIV-related disparities, but more information is needed to understand potential implementation differences across churches. Through in-depth process evaluation, we aimed to understand differences in implementation across the intervention churches that may account for the differences in effects.

A key component of FAITH involved HIV education and peer leader workshops. Here we assess implementation of these workshops through concepts of recruitment, reach, context, implementation, dose-delivered, and fidelity.<sup>25</sup> Prior church-based intervention process evaluations have focused mainly on recruitment and reach.<sup>26</sup> We evaluate a wider range of factors that likely influenced effectiveness. We also provide lessons learned from implementation to provide guidance for future church-based programming efforts that use peer leadership to address HIV. Given the sensitive nature of HIV in the church context and the fact that HIV is an understudied health condition in the church-based literature,<sup>2</sup> this study fills an important gap in the literature by highlighting the issues involved in planning, implementing, and evaluating similar intervention efforts aimed at reducing HIV disparities among African Americans and Latinos.



## Methods

Our process evaluation framework incorporates constructs identified as important for evaluating implementation of health promotion interventions,<sup>27–29</sup> and was applied to all intervention churches, which were selected from six churches matched on race/ethnicity, denomination, and congregation size in and around the city of Long Beach, California. More specifically, one pair of churches were selected from each of the following three types: medium African American Baptist, large Latino Roman Catholic, and small Latino Pentecostal. After reaching out to congregations with a formal written invitation, five churches agreed to participate in the pilot: two medium-sized (125–250 members) African American Baptist, two small (100 members) Latino Pentecostal, and one large (2000+ members) Latino Catholic church. Because these three denominations represent large segments of Latinos and African Americans and because we included congregations of various sizes (which has been shown to affect implementation of health programming), we felt confident that our study would yield important information about feasibility, acceptability, and potential impact to implement this type of intervention across diverse congregational settings. All study protocols were approved by the RAND Human Subjects Protection Committee.

### Intervention description

Intervention components and development are described fully elsewhere<sup>30</sup> and are summarized briefly here and in Figure 1. One component was the HIV sermon, in which a pastor or priest delivered a sermon or homily about HIV using their own preaching style and tradition, but focused on HIV and related stigmas in the community. A second component involved congregation-based HIV testing events conducted by health department counselors who administered a rapid oral fluid testing and counseling in a mobile clinic at the church. A third component involved implementing HIV education workshops to raise awareness about HIV-related stigma and the importance of HIV screening to reduce racial/ethnic disparities. A fourth component was the peer leader workshops designed to leverage the natural occurring social networks within the church to create “seeds” or peer motivators who could help decrease HIV-related stigma and increase HIV testing among congregants and community members. Indeed, this concept of “seeds” was inspired by respondent-driven sampling and shown to be an effective way of increasing use of HIV testing and preven-

tion services among vulnerable Latino populations.<sup>31</sup> Both set of workshops were led by a trained facilitator from the research team and an HIV educator and counselor from a local health department.

### Data sources

**Participant evaluation forms.** Self-administered forms collected basic sociodemographic information and participants’ ratings of various aspects of the workshops using a 3-point scale (e.g., how useful and appropriate for the church environment).

**Observation forms.** Trained research team observers assessed workshops’ dynamics (e.g., level of engagement) systematically using targeted notes and checklists on level of interest, participation, and clarity of information provided using a 5-point Likert scale (1 = not at all to 5 = all/nearly all). The peer leader observation form also assessed level of enthusiasm and comfort level using the same 5-point Likert scale.

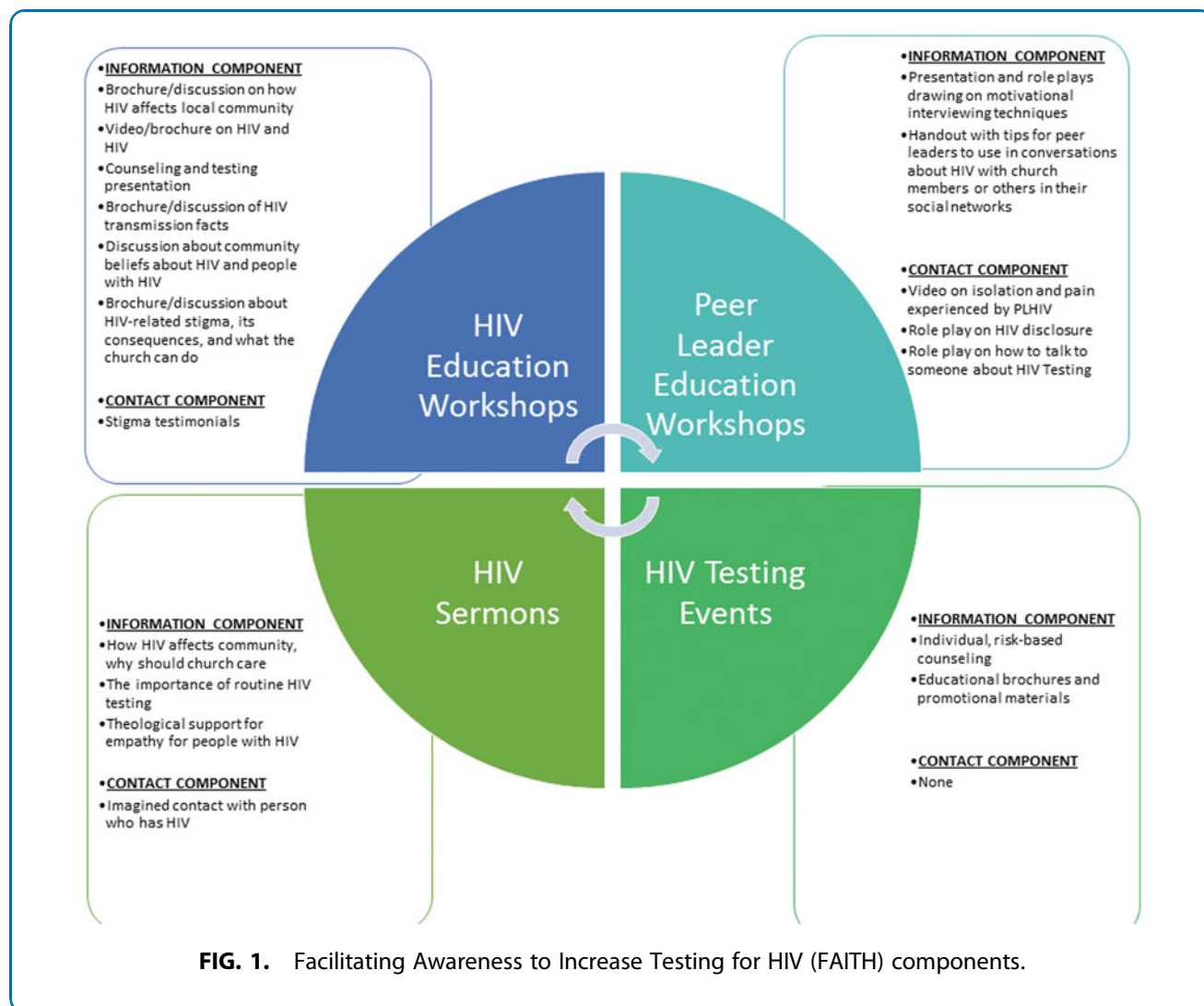
**Q&A cards.** Cards were completed by HIV educational workshop participants on (1) any information they had heard about HIV and how it is spread; and (2) what people in their community thought about people living with HIV (PLHIV). Cards were collected by facilitators and used to tailor comments on and prioritize key educational messages.

**Peer leader follow-up interviews.** Project staff conducted phone interviews several weeks after the peer leader workshops and asked specific questions about the number and type of people peer leaders spoke with about HIV, topics discussed (e.g., HIV-related stigma), and experiences with their social network. Participants rated their level of comfort using a 4-point scale (1 = Very Comfortable to 4 = Very Uncomfortable).

### Data analysis

We used a mixed-method (quantitative/qualitative), web-based data analysis platform called Dedoose.<sup>32</sup> All data were analyzed in the original language in which the data were gathered (English or Spanish). The initial qualitative coding tree utilized the process evaluation constructs (recruitment, reach, context, implementation, dose-delivered, and fidelity) and was applied independently by two coauthors to all data sources and discrepancies were resolved by consensus. Next, using the coded transcripts, research team members worked





**FIG. 1.** Facilitating Awareness to Increase Testing for HIV (FAITH) components.

in pairs to maintain inter-rater reliability, confirm emergent themes related to process evaluation constructs (e.g., implementation, context), and resolve any other discrepancies, which is consistent with known qualitative data analysis procedures.<sup>33</sup>

For the quantitative data, we used descriptive statistics (e.g., frequencies, means) to describe workshop participants' demographic characteristics. Process evaluation results are presented below for the HIV education workshops separate from the peer leader workshops and follow-up survey.

## Results

### HIV education workshops

**Recruitment, reach, and context.** All the intervention churches preferred to recruit workshop participants

through existing ministries (i.e., organized groups such as choir, women's or men's groups, prayer group, bible study, social service or justice ministries) that were currently active in health-related matters. This recruitment approach resulted in four workshops at the Latino Catholic church ( $n=76$  participants). Three workshops were held at the Latino Pentecostal church ( $n=53$  participants). Only one combined workshop was held at the African American Baptist church due to the church leadership's preferences ( $n=19$  congregants). In terms of age trends, Latino Catholic participants were slightly younger compared to Latino Pentecostal and African American Baptist church participants (Table 1). Overall, more women than men participated in the workshops. Irrespective of denomination, a lower percentage of Latino participants



**Table 1. Demographic Characteristics of the HIV Education Workshop Participants**

	Latino Catholic (n=76 participants)	Latino Pentecostal (n=53 participants)	African American Baptist (n=19 participants)
Age, mean (range)	38.8 (17–73)	40.8 (19–72)	46.2 (34–74)
Tested for HIV, % (n)			
Yes	55.3 (42)	39.6 (21)	57.9 (11)
No	36.8 (28)	56.6 (30)	21.1 (4)
Missing	7.9 (6)	3.8 (2)	21.1 (4)
Held a leadership position in this congregation, % (n)			
Yes	26.3 (20)	43.4 (23)	68.4 (13)
No	61.9 (47)	50.9 (27)	10.5 (2)
Missing	11.8 (9)	5.7 (3)	21.1 (4)
Sex, % (n)			
Female	55.3 (42)	60.4 (32)	57.9 (11)
Male	32.9 (25)	35.8 (19)	26.3 (5)
Missing	11.8 (9)	3.8 (2)	15.8 (3)

reported having been tested for HIV or holding a church leadership position relative to the African American participants.

**Implementation, dose-delivered, and fidelity.** The first section of the HIV education workshop focused on basic facts about HIV and testing. Workshop facilitators were able to successfully convey key concepts around testing (e.g., how does an HIV test work, what kind of tests are there, and are test results confidential?), although the African American Baptist

church session received a slightly lower score on this compared to the Latino sessions (Table 2). Most participants noted in their forms that the information on testing was helpful, and observed levels of enthusiasm varied across sessions from at least half looking interested to all. Of note, this section took longer to implement in the Latino congregations with an average of 36 min compared to the African American church with an average of 24 min.

Following this section were “Frequently Asked Questions,” meant to encourage participants to think critically and assess their own HIV knowledge. For example, the questions “What do people in your community think about people with HIV and AIDS?” and “What are some of the different ways that people in your community say that HIV is spread?” yielded different answers across racial/ethnic groups. Several Latino workshop participants shared community beliefs that HIV transmission occurred through blood transfusions, kissing, and sharing tooth brushes. Themes of isolation and discrimination against PLHIV were cited as prevalent among Latino participants as well as a fear of becoming infected through physical contact. In contrast, African American participants indicated limited community dialogue about HIV and that HIV was perceived as a “homosexual” disease. However, it is worth noting that there was no specific discourse on the phenomenon of “men on the down low” despite

**Table 2. Fidelity by Church**

	Latino Catholic <sup>a</sup>		Latino Pentecostal <sup>b</sup>		African American Baptist <sup>c</sup>	
	Execution mean	Enthusiasm mean	Execution mean	Enthusiasm mean	Execution mean	Enthusiasm mean
Basic facts about HIV and HIV testing						
Key concepts included basic facts about how HIV is transmitted, HIV prevalence in their community, and importance of HIV testing	4.2	3.5	4.3	4.0	3.0	4.0
Frequently asked questions about HIV						
Discussion related to “What do people in your community think about people with HIV and AIDS?” and “What are some of the different ways that people in your community say that HIV is spread?”	4.2	2.7	3.3	3.6	5.0	4.0
Understanding HIV and stigma through video testimonials						
Key concepts included definition of stigma, the consequences of stigma, and the role of the church in preventing HIV-related stigma	4.5	4.0	3.0	2.3	5.0	4.0

<sup>a</sup>Score is the average of three HIV education workshops and three peer leader workshops, as well as one combined workshop (i.e., HIV education workshop was combined with peer leader workshop).

<sup>b</sup>Score is the average of three HIV education workshops and three peer leader workshops.

<sup>c</sup>Score based on a single combined workshop (i.e., HIV education workshop was combined with peer leader workshop).

Numbers indicate scores of:

1–2=facilitator failed to convey key concepts/none or very few participants were interested/engaged.

3=facilitator conveyed some of the key concepts/about half were interested/engaged.

4–5=facilitator conveyed nearly all of the key concepts/all or nearly all participants were interested/engaged.



the misperception that they are crucial agents of HIV transmission in the black community.<sup>34</sup>

The next section of the workshop used video testimonials to spark discussion and promote understanding about HIV and stigma. The Latino Pentecostal sessions received the lowest average scores for conveying key messages compared to Latino Catholic and African American sessions. The level of enthusiasm was also lower at the Latino Pentecostal church (Table 2). The observer noted that “there was a lot of victimization/victim blaming, and participants seemed to be having a tough time putting themselves in the shoes of PLHIV.” For another workshop in this church, the observer noted that “the difference between the eagerness (of some participants) to speak up in the HIV Testing Activity and “Frequently Asked Questions,” and the difficulty of getting people to talk during the stigma section, was definitely striking.”

#### Peer leader workshop and follow-up

**Recruitment, reach, and context.** Because churches elected to implement the workshops with established ministry groups, the peer leaders tended to be very active members of the church and lay ministry leaders. They were trained during a single workshop, which was cofacilitated by members of the project team. Furthermore, this workshop provided information and practice on how to talk about HIV with fellow congregants and community members through a series of role-playing exercises, which used a motivational interviewing approach taught by the facilitators. Examples of skills were learning to use open-ended questions, reflective listening, and exploration of ambivalence about HIV testing and reasons for HIV stigma. A total of 56 adults participated in the peer leader workshops across the three intervention churches (Table 3). The mean age was mid-40s and over 80% were female. Peer leaders in the African American congregation reported having been tested for HIV (58%) compared to Latinos in the Pentecostal (42%) and Catholic (48%) churches. Furthermore, over 65% of the peer leaders at the Latino Pentecostal and African American churches indicated they held a leadership position in their congregation.

**Implementation, dose-delivered, and fidelity.** Based on participant evaluation forms, over 80% of peer leaders thought the information was useful, engaging, and appropriate for the church environment. Observation data suggested high levels of interest and enthusiasm among peer leaders in all churches during the role-

**Table 3. Demographic Characteristics of the Peer Leader Workshop Participants**

	Latino Catholic (n=25 participants)	Latino Pentecostal (n=12 participants)	African American Baptist (n=19 participants) <sup>a</sup>
Age, mean (range)	42.4 (29–73)	42.9 (29–54)	46.2 (34–74)
Ever tested for HIV, % (n)			
Yes	48 (12)	42 (5)	58 (11)
No	24 (6)	50 (6)	21 (4)
Missing	28 (7)	8 (1)	21 (4)
Most recent HIV test, % (n)			
< 1 year	24 (6)	0 (0)	26 (5)
1–2 years	8 (2)	0 (0)	11 (2)
2+ years	12 (3)	42 (5)	26 (5)
Never	28 (7)	50 (6)	21 (4)
Missing	28 (7)	8 (1)	16 (3)
Held a leadership position in this congregation, % (n)			
Yes	24 (6)	66 (8)	68 (13)
No	44 (11)	17 (2)	11 (2)
Missing	32 (8)	17 (2)	21 (4)
Sex, % (n)			
Female	28 (7)	92 (11)	26 (5)
Male	44 (11)	0 (0)	58 (11)
Missing	28 (7)	8 (1)	16 (3)

<sup>a</sup>Combined session with HIV education workshop.

playing scenarios. Engaging in this activity appeared to positively affect fidelity regarding key messages (e.g., regarding empathy, nonjudgmental attitudes when talking with others, consequences of HIV stigma).

Several differences in participant responses were also noted. For example, the first activity used a video entitled “La Cruz que Peza/The Heavy Cross,” which is a short, animated, silent depiction of a man carrying a cross through the streets of his community as he faces rejection.<sup>35</sup> The film sparked thoughtful reflections by Latino participants about PLHIV in their own lives. The observers reported this section was particularly effective in eliciting empathy for PLHIV at the Latino churches.

Another difference involved implementation of role plays. The purpose of this activity was to provide participants a way to practice or rehearse how they would react to a specific situation in real life, as well as put themselves “in the shoes” of someone else and to promote empathy toward PLHIV. Latino participants were less familiar with the idea of role playing than African American participants. Workshop facilitators took extra time to explain and demonstrate this activity to the Latino groups, resulting in an average of 41 min for these sessions at the Latino churches compared to 25 min at the African American church. This activity appeared to accomplish its aim since it sparked



in-depth discussions about HIV-related stigma and HIV testing among Latino participants, including the myths or misconceptions about how the disease is transmitted in the Latino community.

Conducting the follow-up telephone survey with all of the peer leaders was difficult due to a lack of availability due to competing priorities (e.g., busy at work) and outdated contact information. Only 27 out of the 56 peer leaders were reached for the follow-up telephone survey. All of those contacted reported talking to someone about HIV testing after the workshop, and 74% reported talking with someone about HIV-related stigma. Latino peer leaders reported speaking to up to 20 family members about HIV-related topics (range 1–20, median 5), whereas African American peer leaders reported speaking to up to 4 family members (range 1–4, median 1). A slightly greater proportion of African American peer leaders reported speaking with other congregants (55%) compared to their Latino counterparts (50%); however, a larger proportion of African American peer leaders (67%) reported talking to clergy or religious leaders than Latino peer leaders (28%).

## Discussion

Our process evaluation highlights factors that affected implementation of a church-based HIV intervention across two disparity populations. Specifically, Latino participants at both intervention churches tended to have lower education than African American participants and recounted numerous HIV-related misconceptions in their communities, which required more time to address, and Latino participants also had less prior experience with role-playing exercises. Despite these disparities, the in-person, nonformal educational approach encouraged Latino congregants to disclose their own experiences with PLHIV, which created a valuable dialogue about the importance of empathy for PLHIV. The workshop seemed to create a “safe space” for discussions about HIV and HIV testing and the nonverbal animated video sparked numerous discussions about HIV-related stigma.

The peer leader model was generally well received by participants from both Latino intervention churches, possibly reflecting comfort with the community health promoter or promotora model that has been used extensively in Latin America and in the United States among Latino immigrant populations to address disparities.<sup>36</sup> Most Latino peer leaders reported feeling comfortable speaking about HIV with people inside and outside

the church. Latino peer leaders also reported speaking with up to 20 people within their social network about HIV-related stigma, particularly family members, which was a higher number compared to African American participants. These findings are consistent with another study that leveraged peer motivators in Latino communities to improve HIV education and testing.<sup>31</sup> Additional research is needed on how to leverage the natural occurring social networks within Latino churches, particularly since social networks in general have been found to affect various health conditions through social support, access to resources, social engagement, and social norms.<sup>37</sup> Furthermore, the fact that peer leaders in the Latino Pentecostal church held leadership positions has implications for such an approach, especially since leadership is highly promoted among congregants of this tradition.<sup>38,39</sup>

This process evaluation also revealed important lessons about implementation in the African American church. Intervention participants were engaged and enthusiastic during the workshops, which dovetails the positive findings regarding acceptability and feasibility from other HIV-related health promotion research situating health education programming within historically African American churches.<sup>40–46</sup> Our study also found that the peer leader model generated a dialogue between peer leaders and members of their social networks, especially around the topic of HIV testing, and with clergy and other religious leaders. For reasons unknown to the research team, the pastor decided to restrict FAITH's educational component to a joint HIV education and peer leader session and only invited 20 lay leaders to participate, which resulted in less dose-received at the African American intervention church and thus a limitation of the study. However, because tailoring and community input are important for dissemination across diverse faith settings and to adhere to CBPR principles of partnership, we had to allow churches to determine the number of workshops offered at their church. This difference in number of FAITH workshops highlights important implementation issues in real-world settings. It also suggests the need for public health researchers to gain a deeper understanding of the role of organizational climate in historically black churches and its implications for program implementation.<sup>40</sup> Given that black churches have historically been a refuge from outside forces of discrimination and oppression, it is not surprising that the need for trust and ongoing commitment from outside entities are crucial factors found by other researchers.<sup>2,47,48</sup> Addressing HIV disparities,





particularly as related to prevention programming, requires that public health researchers invest substantial time and effort in understanding how HIV prevention modalities within the church's tradition might differ from the social construction of HIV prevention from a public health perspective.<sup>49</sup>

This process evaluation highlights critical implementation factors that can help interpret the overall effectiveness findings, as well as issues that similar interventions implemented across race/ethnic groups may need to take into account. Nevertheless, we have limited ability to generalize to other settings given the potentially unique features of participants in the FAITH workshops. Another limitation is that the range of data collection methods used all have weaknesses such as self-report and observer bias, although triangulating these different data sources helps address these issues.<sup>50</sup> Using *in vivo* observations (i.e., conducted with an observer present at the intervention session) as we did is thought to have the added advantage of being able to detect nonverbal forms of communication that could affect implementation.<sup>51</sup> These types of observations are particularly well suited for understanding how the intervention was received (e.g., level of enthusiasm).<sup>51</sup> However, there are multiple factors that could have affected implementation (e.g., facilitator's style) that were not assessed.

## Conclusion

Our study examined implementation and fidelity across diverse faith settings and in doing so we contribute to new knowledge that may help future implementation efforts of evidence-based intervention programs in Latino and African American communities.<sup>2</sup> Similar to other studies, we found that the concept of “seeds” or peer motivators was feasible and acceptable across faith settings. Future work should formally leverage and measure peer motivator's social networks inside and outside of church to form a powerful grid disseminating accurate information about HIV and fomenting empathy for PLHIV.

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## Authors Disclosure Statement

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**Abbreviations Used**

CBPR = community-based participatory research  
FAITH = Facilitating Awareness to Increase Testing for HIV  
PLHIV = people living with HIV

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