

## Key considerations for designing capacity-building interventions to support evidence-based programming in underserved communities: a qualitative exploration

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### Abstract

Increasing the use of evidence-based programs (EBPs) in community settings is critical for improving health and reducing disparities. Community-based organizations (CBOs) and faith-based organizations (FBOs) have tremendous reach and trust within underserved communities, but their impact is constrained by limited staff capacity to use EBPs. This exploratory study sought to identify design and delivery considerations that could increase the impact of capacity-building interventions for CBOs and FBOs working with underserved communities. Data come from a community-based participatory research project addressing cancer disparities in Black, Latino, and Brazilian communities from Greater Boston and Greater Lawrence, Massachusetts. We conducted four focus group discussions with program coordinators in CBOs and FBOs ( $n = 27$ ) and key informant interviews with CBO and FBO leaders ( $n = 15$ ). Three researchers analyzed the data using a multi-stage coding process that included both prefigured and emergent codes. Key design considerations included embedding customized capacity-building interventions into community networks with local experts, supporting ongoing engagement with the intervention via a range of resources and communication channels, and addressing resource constraints. Regarding the contextual factors that should influence capacity-building intervention content, participants highlighted resource constraints, environments in which EBP use is not the norm, and challenges linking available programs with the multi-level barriers to good health faced by community members. Overall, the study highlights the need for integrated, long-term capacity-building efforts developed in partnership with, and ultimately sustained by, local organizations.

### Keywords

Community-based organizations, Faith-based organizations, Capacity-building, Health promotion, Community-based participatory research

### INTRODUCTION

Local organizations, including community-based organizations (CBOs) and faith-based organizations (FBOs) are critical players in efforts to improve the health of underserved populations. Supporting the use of research evidence for health promotion in

### Implications

**Practice:** Staff of community- and faith-based organizations want capacity-building trainings on evidence-based programs that are embedded in the community and offer ongoing supports.

**Policy:** Policymakers who want to increase the use of research evidence in communities should explore opportunities to support systems that build capacity in local organizations over the long-term.

**Research:** Future research should examine the impact of the design considerations highlighted here on short- and long-term impact of capacity-building programs.

CBOs improves population health, reduces health disparities, and maximizes the impact of public health investments [1–4]. With tremendous reach and trust in communities, CBOs are of particular importance for groups inadequately served by traditional public health and healthcare institutions [4–10]. Similarly, FBOs have substantial reach and trust among underserved communities and provide strong social networks to encourage health-promoting behaviors [11–13]. FBOs are also prime partners for the implementation of health interventions as they often have productive relationships with partners at multiple levels, from congregants to policymakers [14].

Although evidence-based programs, practices, and policies (EBPs) are essential to effective health promotion, they are not the norm in community settings [15]. Factors at multiple levels limit the use of EBPs in CBOs, such as organization-level resource constraints, challenges with program adaptation, and a mismatch between available research evidence and

local needs and resources [9,16–21]. For FBOs, key challenges include staffing and resource constraints, insufficient support of leaders and partners, and the need to focus on the broader mission [22–25]. For CBOs and FBOs, another critical barrier comes from the state of the current health promotion evidence base, which often targets individual-level, short-term change [26].

In both CBOs and FBOs, the capacity of individuals charged with running health promotion programs to find, adapt, implement, and evaluate EBPs is an important barrier to EBP usage [27,28]. Many CBO staff do not have formal training in public health or opportunities for professional development [29,30]. In FBOs, frequent turnover of paid staff and reliance on volunteers limit skill development among program implementers [24,31]. When building EBP capacity, the goal is to equip practitioners with knowledge, skills, motivation, and resources to select, utilize, and evaluate research evidence so that it can be integrated with local knowledge and applied. Capacity-building interventions have been successfully conducted with policymakers, health department staff, and other public health practitioners [32–37]. In community and faith-based settings, capacity-building interventions have increased the use of EBPs and improved the reach of health promotion programs [38,39]. These interventions have also addressed FBO-specific barriers to EBP use, including incorporating culturally appropriate EBPs into existing programs, conveying the link between spirituality and health, establishing health ministries, and securing additional resources [24]. Despite increasing attention to capacity-building, the question remains regarding how to effectively design and deliver capacity-building interventions for diverse types of public health practitioners so that gains in knowledge, skills, and practices can be sustained [32,40,41].

Capacity-building interventions as discrete training activities, merely conveying information from EBP developers to practitioners without bidirectional exchange/collaboration, are unlikely to result in the implementation of new programs or sustained changes in workflow [33,42]. Instead, various supports—ranging from continuous feedback, technical assistance, manuals, online tools and repositories, and trainee networks—must complement training to achieve impact [32–34,37,41–44]. Our previous work highlights the importance of ongoing engagement between those offering and receiving training (e.g., through web-based supports, networking events, or technical assistance) for increasing the use of EBPs [44]. That work also highlights the importance of trainees engaging with each other to share information about the use of EBPs in practice settings [45]. The imperative, then, is to experiment with different ways to design and deliver capacity-building interventions to support EBP usage at scale and with an eye to sustainability.

We grounded our exploration of capacity-building intervention design in the Exploration, Preparation, Implementation, and Sustainment Framework (EPIS) [46]. The framework calls attention to the multiple levels of factors that influence the implementation of an EBP, from adoption and adaptation through delivery and integration into the organization's work. This framework was particularly useful for our inquiry, given its focus on EBP implementation in externally funded social service settings as well as the prompt to examine different influences at varying stages of implementation. We also took an ecological perspective, which prompts attention to multiple levels of influence on behavior (here, focused on the behavior of individuals implementing EBPs) [47].

We sought to inform the development of hypotheses regarding features of a capacity-building intervention that could support EBP implementation in CBOs and FBOs. To do this, we solicited expertise from community leaders and program implementers to explore two areas: (1) key considerations to design capacity-building interventions that fit community needs while allowing for ongoing engagement and (2) the ways in which CBO and FBO context for EBP implementation should influence the content of capacity-building interventions.

## MATERIALS AND METHODS

### Study context

Data come from formative research conducted by the Outreach Core of the U54 Partnership between the Dana-Farber/Harvard Cancer Center and the University of Massachusetts, Boston. In addition to building the literature, study results were also utilized to refine an existing capacity-building program to promote EBP usage in CBOs and create a version for FBOs. The Outreach Core used a community-based participatory research approach, working in partnership with a Community Advisory Board. This assets-based approach develops and leverages the resources and expertise of all partners; ensures attention to knowledge and action; and facilitates collaborative, equitable involvement of partners throughout the research process [48,49]. The U54 advisory board included five members with rich expertise in social justice and community health, representing the City of Lawrence Mayor's Health Task Force, the City of Lawrence Community Development Office, Greater Love Tabernacle, Health Resources in Action, and the Brazilian Worker Center. Each member of the advisory board is a co-author of this paper.

This partnership served residents of Boston (with particular attention to Black community members), the Latino community in Lawrence, and the Brazilian community in Greater Boston. Census data from 2016 highlight the diversity of the three groups [50]. Boston had the largest population,

estimated at 658,279 residents. Significant population subgroups identified as White, non-Hispanic (45%), Black, non-Hispanic (23%), and Asian, non-Hispanic (9%). About 19% identified as Hispanic. Roughly 21% of the population lived below the poverty line. Lawrence had about 79,337 residents. About 77% of residents identified as Hispanic and others identified as White, non-Hispanic (17%), Black, non-Hispanic (3%), and Asian, non-Hispanic (3%). About 26% of the population lived below the poverty line. The Brazilian community of Greater Boston is spread out across several cities; recent estimates suggest about 30,600 individuals of Brazilian descent live in Middlesex County, which includes the Greater Boston area. Although individuals in the United States who identify as having Brazilian ancestry tend to have higher levels of education and employment than other immigrant groups, significant potential drivers of health disparities include limited English proficiency and barriers to accessing healthcare that are related to immigration status [51,52]. Importantly, each of the project's partner communities has a vibrant health sector, with progressive, multi-sectoral efforts to address health disparities and the social determinants of health.

#### Participants and data collection

The research effort included two complementary sets of activities: focus group discussions with individuals using EBPs and key informant interviews with community leaders. The interviews and discussions were facilitated by a study team member (A.R.), an experienced qualitative researcher with a doctorate in sociology. Focus group discussions were held with *program coordinators*, the term used henceforth to include individuals charged with conducting health programs in CBOs and FBOs. Eligible individuals were adults conducting health programs serving one or more of our partner communities. CBO participants typically had program planning as part of their formal job duties, whereas FBO participants included paid staff and volunteers. Participants were recruited via community coalitions and the advisory board. Key informant interviews were conducted with *community leaders* from the CBO and FBO sectors. Eligible individuals were adults with expertise regarding health programming in CBOs or FBOs in one or more of our partner communities. We used purposeful sampling, followed by snowball sampling [53,54]. Our initial pool of key informants included members of the advisory board, and they nominated additional potential participants.

#### Focus group discussions with program coordinators

Program coordinators were invited to take part in a 90-min-long focus group discussion in an accessible community location. Focus groups are a useful method for using group interactions to elicit shared norms and perspectives from participants [55].

The discussions took approximately 90 min (ranging from 82 to 93 min) and were audio-taped. A notetaker was present during the discussions. All focus groups were conducted in English. The focus group discussions followed a semi-structured interview guide, which was informed by the EPIS framework. A number of topics in the guide were relevant to this analysis: (1) a description of the community served; (2) understanding, familiarity with, and examples of EBPs; (3) characteristics of the individuals who implement EBPs in participants' organizations, including attitudes towards EBPs; (4) experiences with program adaptation, including challenges with adaptations and need for resources to support this process; (5) examples of successful professional development opportunities in which they have participated; (6) reactions to suggestion of using technology to supplement in-person training activities; (7) information preferences and technology access in the context of their program coordination activities; and (8) preferences for receiving updates that would support program planning efforts.

In each focus group, program coordinators completed two worksheets on training supports and post-training communication preferences to identify how components of previous trainings supported their day-to-day work. Program coordinators were asked to rank their top three training supports and communication preferences. Options for training supports included tools (such as manuals and worksheets), technical assistance, peer networking, feedback, and incentives. Options for communication preferences included email newsletters, conference calls, webinars, discussion forums, social media, and in-person networking.

#### Key informant interviews with community leaders

These one-on-one interviews are useful for gaining insight into the views of participants, particularly with experts who can provide a high-level perspective that could not otherwise be accessed [55]. Interviews were conducted by telephone to reduce participant burden. This mode of administration has been shown to be a useful alternative to in-person interviewing [56] and was appropriate for this study, given the non-sensitive nature of the topics and the public-facing positions of the participants. Interviews took about 45 min to complete (ranging from 39 min to 63 min) and were audio-taped. The key informant interviews were conducted in English, with the exception of one conducted in Spanish (by the same facilitator).

The key informant interviews followed a semi-structured guide, informed by the EPIS framework. The conversation focused primarily on (1) characteristics of the community that the participant served, (2) familiarity with EBPs among local organizations, (2) program adaptation in local

organizations (emphasizing challenges and opportunities for support), (3) characteristics of program coordinators who use (or could use) EBPs in their community; (4) program coordinator access to technology in the context of program planning; (5) system-level influences (e.g., politics or resource constraints) that might influence the ability to use EBPs in practice; and (6) key considerations for trainings in low-resource organizations.

#### Data analysis

A professional service transcribed the audio recordings. Transcripts were analyzed and summarized by three trained researchers per standard comprehensive qualitative analysis methods. The interdisciplinary team included a sociologist (A.R.), nurse/health systems researcher (K.G.), and implementation scientist (S.R.), all with doctoral degrees in their fields. The analytic approach incorporated aspects of both grounded theory and framework analysis and involved a multi-stage coding process that utilized both prefigured and emergent codes [57]. Prefigured codes were developed from the domains of interest in the moderator and interview guides and literature review, while a more inductive and open-coding process was used to identify emergent codes in the data [58]. This open coding enabled categories that emerged from these data to form the broader thematic framework, and a refined coding structure was then collaboratively and iteratively developed. This structure was then applied to all interview transcripts. Each transcript was independently coded by two investigators, followed by a coding comparison, and meetings to address discrepancies between coders. After the data were coded, the team also conducted a set of analyses to draw comparisons between types of participants (e.g., leaders vs. program implementers and individuals representing CBOs vs. FBOs). Each stage of the coding and analysis process was reviewed and discussed by the research team to ensure interpretive consistency and trustworthiness. These methods were enhanced by the use of NVivo 11 [59]. Aligning with the participatory design of the project, interpretations of results were presented to the advisory committee and refined collaboratively and iteratively over multiple meetings.

#### Ethics approval and reporting

All procedures performed were in accordance with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. All study procedures were approved by the Institutional Review Board of the Harvard School of Public Health. Informed consent was obtained from all participants included in the study. The research team utilized the Standards for Reporting Qualitative Research [60] to support transparent reporting.

## RESULTS

### Participant characteristics

We conducted four focus group discussions between October and November 2017, with 27 participants. We held separate groups for program coordinators working in Greater Boston, Greater Lawrence, with the Brazilian community, and in FBOs. Among participants, 67% ( $n = 18$ ) were staff at CBOs, and 33% ( $n = 9$ ) represented FBOs. They identified as White, Non-Hispanic (8%), Black, non-Hispanic (22%), and Hispanic (63%); 7% declined the question. About 89% ( $n = 24$ ) identified as female and about 11% ( $n = 3$ ) as male. Participants worked in the Greater Lawrence area (34%) and the Greater Boston area (66%). All focus group discussions were conducted in English. We conducted 15 key informant interviews between July and November 2017. Among participants, 70% ( $n = 10$ ) were leaders representing the community sector, and 30% ( $n = 5$ ) represented faith-based organizations. The participants worked with communities in the Greater Lawrence area (40%), the Greater Boston area (40%), and the Brazilian community in Greater Boston (20%).

### Key themes

We present findings in two main areas: training design and context for EBP implementation. The findings are presented across groups and highlight the key relevant issues. Where applicable, we also highlight divergent perspectives between program coordinators and community leaders as well as those unique to CBO or FBO participants. Key themes are summarized in [Table 1](#).

### Training design

#### *Influences on participation in training*

Community leaders and program coordinators highlighted a number of influences on participation: (1) costs of attendance, (2) relationships between the group offering trainings and community leaders / program coordinators, (3) links between training content and local needs, (4) financial support for EBP implementation, and (5) leadership buy-in. First, costs were raised repeatedly as a major barrier to participation in capacity-building events. For CBOs, the challenge related to sending staff who are already limited in availability and over-burdened. In FBOs, the challenge for many involved reliance on volunteers, who often have full-time jobs. Other concerns around costs related to lost wages (for those whose time could not be covered by an organization), fees, and travel costs. These concerns were further emphasized during the review of findings with the Community Advisory Board.

Second, relationships between trainers and local leaders and organizations were seen as important facilitators to increase participation in the training. The group conducting the training was expected

**Table 1** | Domains and key themes in designing capacity-building interventions for CBOs and FBOs

Domains	Key themes
<b>1. Training Design</b>	
1. A. Drivers of participation	The major influences on participation included: (1) costs (e.g., time away from the office for CBOs and attendance fees) and lost wages (particularly for volunteers); (2) relationships between trainers and community leaders/ program coordinators; (3) practice- and community- focused content; (4) financial support for EBP implementation; and (5) leadership support.
1. B. Aspects of past trainings found to be useful	Key characteristics included interactive and inclusive approaches to training (ideally from someone based in / tied to the community) and localized content.
1. C. Supports to strengthen trainings	When reacting to a list of potential supports, program coordinators highlighted the value of tools, technical assistance, and peer networking in the context of collaborative relationships to move the work forward.
1. D. Post-training communication preferences	Reacting to a list of options, program coordinators indicated a preference for in-person networking, email newsletters, and conference calls, with some variation between CBO- and FBO-based participants regarding comfort with new communication technology.
<b>Key contextual factors</b>	
2. A. Common contextual factors across CBOs and FBOs	Common considerations included: (1) diverse definitions of EBPs, (2) a need to adjust the program for multi-level influences on behavior and community members' competing demands, (3) opportunities afforded by strong relationships between program coordinators and community members, and (4) challenges related to funding and sustainability of EBPs.
2. B. FBO-specific contextual factors	Important influences on EBP implementation included staffing constraints (particularly for organizations relying heavily on volunteers), limited resources for programming, and the fact that not all health topics are acceptable to FBOs as areas to address.
2. C. CBO-specific contextual factors	Important influences on EBP implementation included the perception that EBP usage is not the norm in these settings; challenges related to funding opportunities (mismatch with community needs, irregular/ short-term and narrow focus) as well as staff turnover and organizational constraints.
2. D. Supports for program adaptation	Participants emphasized challenges in adapting EBPs for multi-level considerations and needing resources to support systematic adaptation.

to engage with the community well in advance of the training, build trust, and commit to a continued relationship through support and follow-up after the training. One component of establishing and carrying on these relationships depended on clear communication, including interactions and materials in the predominant language(s) of the area. One leader that emphasized the importance of relationships in this way:

A warm body to call. . . . A warm handoff to someone else or something. I think that a lot of times, it's about that trust and that connection. - Interview 6, CBO leader

Third, explicit connections between the training content and community health needs were highlighted as important selling points by leaders and program coordinators. This included making the training practical and applicable by connecting it to concrete examples and demonstrating how it supports organizational and community needs. Fourth, financial support for program implementation was another major

factor discussed by community leaders and program coordinators. One community leader commented:

I can imagine people saying why am I going to learn about programs that there's no funding to do. So I think the kind of training and exposure to this stuff is most effective when people know that they're going to have capacity to implement it.—Interview 1, CBO leader

Finally, establishing leadership buy-in was discussed both among leaders and program coordinators as an integral part of gaining support for trainings. This was expected to not only support training attendance but also provide a higher level of support to staff members integrating training content into their organization.

*Program coordinators' perceptions of useful past trainings*  
 Program coordinators focused on two sets of characteristics related to successful past trainings: (1) an engaging approach delivered by someone with

ties to the community and (2) localized content. Regarding the delivery, most program coordinators emphasized a preference for interactive, inclusive trainings led by an enthusiastic, energetic, and knowledgeable facilitator. Program coordinators and community leaders noted that it was helpful to have a facilitator who had a similar demographic background to the trainees. Program coordinators reported the value of having someone with ties in the community facilitate trainings to increase community acceptance and serve as a local resource after the training.

Speaker 1: [Town] has a lot of folks that come in from out of town to do everything from pinnacles to practicum to all sorts of stuff in [town] that you don't always have the person running these trainings being an actual [person from that town]. Speaker 2: Yeah, or they come in too and they leave and then there's nothing left about that. We wanted something to be established.— Focus group 1, CBO program coordinators.

Program coordinators also highlighted the importance of localized content, consistent with the discussion they had about influences on participation in trainings. Last, program coordinators noted providing food, childcare, materials that can be used as resources, and choosing an accessible location as important strengths of past trainings.

#### *Supports to strengthen trainings*

The discussion around training supports started with an exercise to rank supports program coordinators had found helpful in past trainings. Tools were the most popular, with 13 participants ranking this first and 19 total ranking it in the top three. This was followed by technical assistance, which six individuals ranked first and 20 put in their top three. Peer networking was the third, with five ranking this first and a total of 14 ranking it in the top three. Incentives and feedback were less popular options. In the discussion, program coordinators emphasized the value of these supports for collaboration. For example, they noted that they could use the tools to interact with more experienced program coordinators to learn new strategies to solve problems they encountered in practice. Program coordinators also talked about the value of tools to help them perform their work effectively and efficiently. In this context, tools included previously developed and translated handouts, information pamphlets, and flyers. Opportunities for peer networking were also described as very helpful, as program coordinators used these networks to discuss strategies for problem-solving and addressing issues as they arose. Technical assistance was most helpful when program coordinators were able to connect with a person to problem solve situations in real-time. Program coordinators described the nature

of their work environment as fast-paced with quick turnarounds; thus, the ability to find immediate solutions was essential.

#### *Post-training communication preferences*

From the list of options, the most popular forms of post-training communication were in-person networking, email newsletters, and conference calls. For in-person networking, 10 individuals listed this as their first preference and 15 ranked it in their top three. Both email newsletters and conference calls received six first-place rankings and were in the top three for 14 people. The other options (webinars, discussion fora, and social media) were not ranked as highly. The discussion that followed the ranking exercise highlighted a desired balance between integrating high-tech tools, such as emails, webinars, discussion fora, and social media, with opportunities for high touch interactions, such as in-person networking and conference calls. The use of technology-based supports was perceived as valuable to the work of program coordinators, particularly given the flexibility they offer in terms of access. Webinars were perceived to be advantageous as they were fast, short, and accessible at the participant's convenience. Social media were seen as a valuable source of communication for outreach, though there was disagreement on the value related to training support. However, there was a great deal of variation in comfort with technology. Several program coordinators from FBOs reported being less technologically savvy and preferred the option of in-person physical communication, compared to CBO program coordinators who reported using information technology in their daily work were supported by program coordinators from CBOs and FBOs, given the flexibility they provided.

#### *The implementation context for EBPs in local organizations working with the underserved*

As a complement to the options for training design elements, we explored the ways in which the EBP implementation context might influence the structure and content of a capacity-building intervention.

#### *Common EBP implementation context considerations for CBOs and FBOs*

A number of common contextual influences on EBP implementation were identified, including (1) the use of a number of definitions of EBPs, (2) a need to adjust the program for cultural and system-level drivers of behavior, as well as the competing demands of community members, (3) opportunities to make the most of deep connections between program coordinators and community members, and (4) challenges with funding and sustainability.

First, we found two main ways in which leaders and program coordinators defined EBPs as research-tested or as programs involving data during

planning or implementation. Those who used a research-tested definition of EBP typically included concepts of effectiveness and formal evaluation of the program by others to show that they work. The second definition described EBPs as programs that involved data in some part of the program planning or implementation process. This definition emphasized data collected to define the health problem of the community or to determine the results of an activity.

Second, leaders and program coordinators noted that it was critical to adjust for multi-level factors when implementing EBPs. This includes adjusting for the larger cultural context (e.g., mistrust of the medical system or increased attention to system-level drivers of health inequities). Leaders and program coordinators also highlighted challenges of delivering EBPs to clients for whom the language or literacy level of available EBPs is mismatched. They noted that EBP implementation would be greatly facilitated by access to programmatic resources in multiple languages and support in matching an EBP to the practice setting. Participants noted the challenge of competing concerns for clients, such as immigration status, which might limit attendance at public events. Finally, they noted the challenge clients might face given fundamental concerns relating to maintaining employment and paying bills.

Third, program coordinators emphasized that health programs are delivered in the context of trusting relationships with community members. That base of trust (between program coordinators and community members) was described as the foundation for the delivery of health programming. Fourth, leaders and program coordinators highlighted a concern related to resource constraints. Related to funding and resource constraints, participants also noted challenges related to planning for sustainability after the initial (often short-term) funding ends.

#### *FBO-specific EBP implementation context considerations*

In FBOs, leaders highlighted a few important factors that affect the use of EBPs in faith-based settings. First, health programs in FBOs were described as mainly run by volunteers. On the positive side, these volunteers come to this work with a passion and often have expertise in the health field (nursing, social work), and public health. However, these volunteers are unpaid and are constrained in terms of availability given competing demands on their time. A related second factor is the lack of resources for the implementation of programs. The first and second factors were described in an interrelated manner here:

We have this as a passion. A lot of us that are in the health ministry usually have a health testimony, and that's kind of what draws us to wanting to help others, encourage others and come together as likeminded

individuals, and we have some sort of a background that fits into doing the ministry work. But we do it out of our compassion. We do it out of our pocket, out of our time, and it's just a commitment of stewardship.—  
Focus Group 3, FBO program coordinators

Third, leaders noted that not all topics are open for discussion in faith-based settings and that program coordinators have to tread carefully to preserve the goodwill they have created, as highlighted here:

It has taken over five years to build enough of a reputation and a trust with different denominations to be able to go in [to churches]. I mean, if you go in there and you're talking about bone health, doors will most likely open, versus, let's talk about domestic violence and sexual assault or breast or prostate cancer. —  
Interview 6, CBO leader

#### *CBO-specific EBP implementation context considerations*

Community leaders with knowledge of CBOs noted that EBP usage was not necessarily the norm in these organizations. Leaders emphasized funding as a major barrier to EBP usage and suggested that larger CBOs have the necessary funding and infrastructure to support EBPs, whereas smaller ones do not. Several leaders highlighted the disconnect between the health topics for which there is funding available and the needs of the community, as well as the irregularity of funding availability. Finally, CBO-based program coordinators highlighted challenges to EBP usage related to organizational constraints, such as staff turnover.

#### *Adaptation of EBPs*

The discussions around program adaptation included both the challenges of conducting such adaptations as well as suggestions for potential resources that might support the process. Almost all community leaders had direct experience with altering programs, whether evidence-based or not, to accommodate the needs of clients and communities. Community leaders described a diverse range of adaptations, with almost all discussing changes that address client characteristics (such as language or culture). Other types of adaptations focused on the resources available to the client (e.g., transportation) or the environment in which the client lives (e.g., urban vs. suburban context). A few community leaders mentioned adaptations made to adjust for the characteristics of the implementing organization, such as staff availability.

With program coordinators, adaptation discussions centered around changes made for context/client culture, language, and other factors at multiple levels. The responses suggested a fair deal of familiarity with EBPs being tested within a specific population/context, which is likely to be quite different from the communities program coordinators serve. The discussions often explicitly connected

adaptations for language as part of cultural adaptation (as opposed to simple translation), as in the below:

So I would actually take it a step further than that and not expect translation to be the be-all, if you will, and actually providing bilingual, bicultural facility. I think that would go the extra mile.—Focus Group 1, CBO program coordinators

Program coordinators also highlighted needing to consider the match/mismatch between an EBP and their intended use at multiple levels, including population characteristics, the setting type, and staff availability. While it was not discussed frequently, two program coordinators commented on the tension with fidelity, or delivering the program as originally intended.

Community leaders had a range of suggestions regarding potential supports for adaptation. Potential adaptations supports included guidance and assistance when the organization is actively adapting/implementing a program, products that better fit implementers' needs, local knowledge, and financial resources to support adaptation. Unique suggestions included support adjusting to new political environments and tracking the changing evidence base. Among program coordinators, discussions regarding resources for adaptation centered on resources to increase client engagement, materials that are client-appropriate, materials that are translated, and other individuals as resources to support adaptation. The fourth suggestion was less frequent but connected with themes highlighted by the community leaders.

## DISCUSSION

This study explored the ways in which capacity-building interventions can be structured to better support community- and faith-based organizations in implementing EBPs for underserved communities. We found a number of design elements worthy of further examination and identified several influences on EBP implementation in CBOs and FBOs working with underserved communities that should be addressed by capacity-building interventions.

The findings related to training design highlighted important resource constraints that limit participation in capacity-building interventions, echoing a broader trend for public health practitioners [61]. In the same way, the emphasis on leadership support was critical (to engage in capacity-building and also to integrate the new approach into practice), which is supported by the broader literature [33]. Providing linked funding for implementation has been shown to be an important component of capacity-building interventions [38,39]. Important opportunities to promote participation included

ensuring that trainers are local leaders who can continue to serve as resources. We also identified a set of training supports and communication preferences that are consistent with other research in terms of demand for ongoing engagement as part of the capacity-building intervention [32,44]. Our findings also extend the conversation as the value placed on these supports and communication channels was explicitly linked to opportunities to collaborate and build/support local networks.

The findings related to the EBP implementation context emphasized a disconnect between the evidence base and the needs of practitioners and communities. This was reflected in the rich discussions about the multi-level influences on community members' behaviors and the need for: (a) programs that account for these influences, (b) supports to help program coordinators adapt EBPs, and (c) opportunities to leverage rich relationships between program coordinators and community members. These findings are consistent with work related to program adaptation and community-level interventions [62–64]. There is an opportunity for researchers and practitioners to co-create evidence so that tacit knowledge, research evidence, and contextual evidence can be integrated to support program planning [65,66].

The multi-level influences highlighted (e.g., variable and mismatched funding streams, community context, and organizational constraints related to resources and staffing, practitioner attributes and resources, and multi-level demands on EBP recipients) echo those noted in the underlying theoretical model, the EPIS framework, as well as the extension of that framework to program adaptation, the Dynamic Adaptation Process [46,67]. The bulk of the conversations that were phase-specific described the implementation and sustainment phases of the implementation lifecourse, but that may have been a function of the questions focusing on the execution of EBPs versus the planning processes related to exploration or adoption/preparation.

The findings prompt a system-level focus for capacity-building interventions, which considers influences on EBP implementation from individual (e.g., client or practitioner), organizational, community, regional, and policy levels as well as the ways in which those influences interact with each other [68]. Accordingly, interventions should address multiple touchpoints in the system, as in the example of knowledge broker models, which rely on trained practitioners who are integrated into the system/community and serve as a local EBP supports and change agents [69,70]. Or, a system-level approach might emphasize peer networks, which allow practitioners to create and share practice-based insight, share resources, and collaborate to solve problems [43,71–73], a vital component of infrastructure highlighted in our previous work [74]. System-focused



interventions could also address challenges around norms, including addressing sensitive topics and making the use of research evidence routine [15,75]. As highlighted by a recent call to create a complex systems model for public health evidence, the goal shifts from EBP use to the reshaping of systems to be better positioned to improve health and support health equity [26].

As with any study, the results must be placed in the context of a set of limitations. Our study used targeted sampling and was small in scale; thus, the patterns that emerged may be different for FBOs and CBOs working in other communities and contexts. Second, while we refer throughout to “FBOs,” study participants were all linked to Christian churches and not religious centers for other faiths. Despite these limitations, the study offers a number of important strengths. First, we used directed sampling strategies to recruit both community leaders and program coordinators engaged in health promotion with one or more of three diverse, underserved population groups (Blacks, Latinos, and Brazilians in the Greater Boston / Lawrence area). Second, the discussions emphasized current actions and past experiences, rather than projections about hypothetical preferences. Third, the analysis was conducted by three doctoral-level, qualitative researchers from complementary academic traditions and emphasized rigorous processes. Fourth, this study was conducted as part of a larger project using participatory approaches, and thus, is expected to offer solutions more likely to impact practice [76]. The findings were vetted and refined through an iterative process with the project Community Advisory Board, resulting in the joint production of this manuscript.

Overall, the study points to the opportunity to take a collaborative, systems-focused approach when designing capacity-building efforts. Through thoughtful, long-term action and co-creation of solutions in the context of partnerships and long-term capacity-building, we can change both the evidence base and the practice home for it and increase the impact of research evidence among the underserved.

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**Compliance With Ethical Standards**

**Conflict of Interest** none declared.

**Authors' Contributions:** SR, KG, and AR designed the study, collected and analyzed data, and drafted the manuscript. KV provided guidance throughout the study. CRJ, VMD, EM, JT, NT, CB, STD, SM, DS, and CS provided feedback on the study instruments and supported interpretation of data.

**Ethical Approval:** All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional

and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. All study procedures were approved by the Institutional Review Board at the Harvard T.H. Chan School of Public Health. Informed consent was obtained from all individual participants included in the study. This article does not contain any studies with animals performed by any of the authors.

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