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A Community-driven Research Framework: Integrating Promotores as Co-Researchers

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Abstract

Background: Integration of community health workers/ promotores in community-based participatory research is an efficient strategy to advance research and health initiatives. We build on the principles of the interactive and contextual model of community–university collaboration for research and action, the public health critical race framework, and the situated learning theory to propose the community-driven research framework for the development of culturally appropriate research methods training and integration of promotores as co-researchers.

Objectives: To present the community-driven research framework as a model that trains and integrates promotores in research methodologies.

Application of the Community-Driven Research Framework: By showcasing three case studies (March 2019 to December 2021) we describe the promotores' levels of involvement through the various research stages highlighting the effectiveness of the community-driven research framework.

Conclusions: The community-driven research framework fills a gap in the literature by providing a process through which researchers can engage in a culturally relevant learning process that allows entry to the community, fostering trust, and initiating a mutual collaboration that is embedded within the local context and needs of the community. The implementation of the community-driven research framework has implications for the development of culturally sensitive community partnerships as well as for designing research that is centered around the cultural and social context of the community.

Keywords

Community Health Partnerships, Community Health Research, Power Sharing, Community-Based Participatory Research, Frameworks, Education, Nonprofessional

Community-based participatory research (CBPR) is a methodology used to ensure that vulnerable and underserved populations are not exploited, and that research findings are disseminated back to the community,[1,2] One way that CBPR tries to mitigate negative experiences is through the integration of community health workers (CHWs).[3–5] The American Public Health Association has defined CHWs as critical public health workers who are trusted members of the community.[3,4] As trusted members of the community, CHWs are uniquely positioned to serve as cultural brokers between health professionals, social service professionals, and researchers.[6,7] The term CHWs has been widely used in the literature, as well as other terms such as community lay worker and promotores. In this study, we will be using the term promotores.

Although promotores have been widely used in the healthcare setting, it has only been within the last decade that they have been more active in different aspects of the research.[4,8,9] Research has demonstrated that promotores are central to advancing public health research, practice, and

education.[3,4,10,11] Particularly, promotores have played a critical role as community liaisons who are tasked with outreach and recruitment of participants.[10,11] However, their involvement as community liaisons oftentimes does not recognize promotores as members of the research team. Their involvement in other phases of research such as study design, implementation, data collection, and dissemination is rare. Concerns for the training and integrating promotores as co-researchers include factors such as educational level, language, and time to satisfy the official requirements placed by institutions to conduct research.[12] Additionally, interdisciplinary scholars have identified barriers such as the lack of funding[13] as a factor in integrating them as co-researchers. Nonetheless, promotores have social and cultural skills which are great assets for enhancing the efficacy of CBPR methodologies. However, methodologies for the formal training and career-building education[14] of promotores in research methods and practices[15] is a gap in the literature.

The goal of this study is to propose the community-driven research framework as a CBPR model to guide researchers on how to train and integrate promotores as co-researchers. Particularly, the community-driven research framework aims to provide a model for community-engaged researchers to develop culturally competent trainings that seek to be more inclusive of promotores as co-researchers. The community-driven research framework has implications for the development of culturally appropriate community health partnerships that centered around the cultural and social context of promotores' lived-experiences and in turn enhance CBPR methodologies. We highlight three studies to exemplify how we implemented the community-driven research framework and present outcomes to illustrate the framework's utility.

THEORETICAL BACKGROUND

The Community-Driven Research Framework

The community-driven research framework builds on the interactive and contextual model of community–university collaboration for research and action,[16] the public health critical race framework,[17] situated learning theory,[18] and our experience as community-engaged researchers and practitioners. The community-driven research framework aims to provide culturally appropriate approaches to training and integrating promotores as co-researchers. The interactive and contextual model of community–university collaborations for research and action includes three phases for developing and sustaining community–university partnerships: 1) entering the community; 2) developing and sustaining a mutual collaboration; and 3) recognizing the benefits and outcomes of the relationship.[16] The model fails to acknowledge how the exchange of knowledge, social interactions, and culture may influence the learning process. This gap is crucial to understanding how to develop and provide effective training for promotores to learn the research process. We fill this gap by integrating the situated learning theory,[18] which suggests that learning is a result of the context, activity, and culture in which it occurs. Situating the learning in the context, activity, and culture ensures that the learning process is grounded in the promotores' lived experiences.

The integration of the interactive and contextual model of community–university collaborations for research and action[16] along with situated learning theory[18] informs the community-driven research framework (Figure 1), which includes the following two tenets: 1) a critical culturally relevant learning process and 2) a bidirectional learning process that is embedded in the local context. These tenets are grounded within the public health critical race praxis, which challenges power structures that historically have marginalized communities of color and promotes health equity.[19] The community-driven research framework integrates promotores in the research process and trains them as co-researchers by bringing to the forefront their lived experiences, intersectional identities, assets, and their communities' resources.

Culturally Relevant Learning Process. We define the culturally relevant learning process as the social interactions that center around trust, mutual respect, and diversity. These culturally relevant social interactions validate promotores' voices and knowledge to inform the research process. Building on the promotores' knowledge allowed us to facilitate the interactions that promote a culturally relevant learning process for training promotores.[9] We acknowledge that a shared cultural background is important and recommend engaging cultural brokers when researchers do not have a shared background.
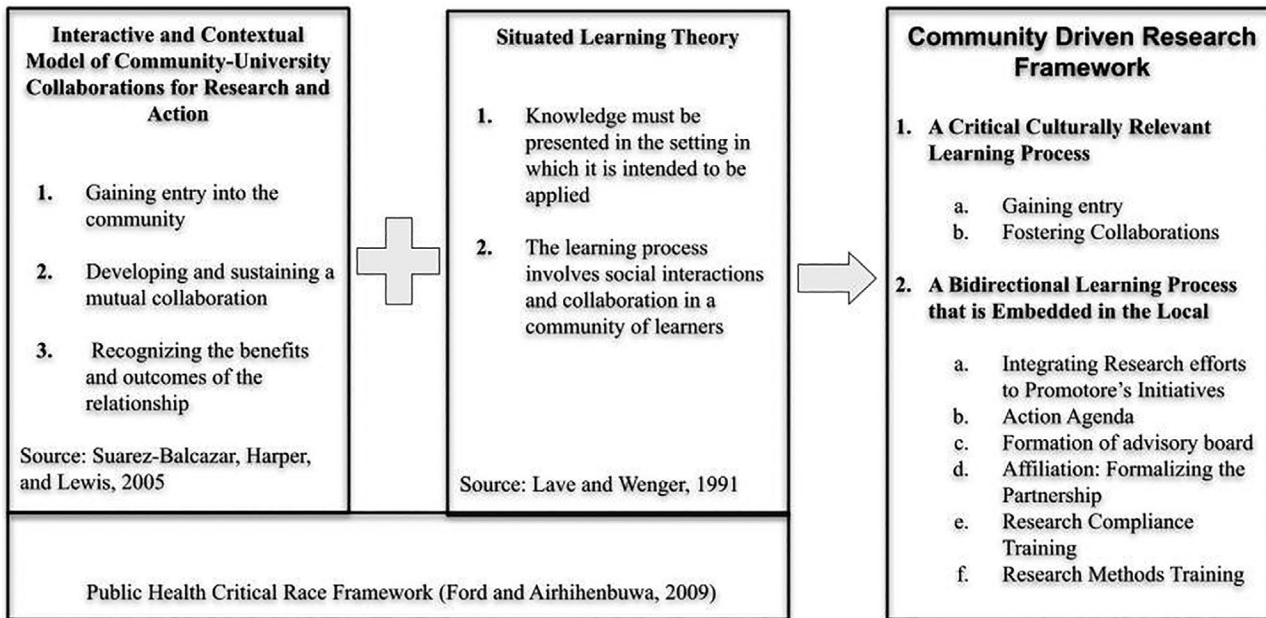
Figure 1. Community-driven research framework.

The culturally relevant interactions require a critical consciousness to examine the contextual factors, relationships, and personal biases.[17] Critical consciousness is a deeper cognitive socialization process embedded in the cultural context which requires the researcher to acknowledge their positionality and identity through a public health critical race lens to understand how researchers' intersectional identities can create barriers or facilitate the process.

Bidirectional Learning Process. This process assumes a bidirectional exchange of ideas, experiences, and knowledge[16,18] through which researchers and community partners are learning from each other by centering the experiential knowledge of communities to inform health equity-driven research methodologies.[17] The bidirectional learning process can be achieved through the integration of research efforts with community initiatives, the formation of an expert panel,[20] and the development of a training process that meets the needs and integrates the promotores' funds of knowledge[21] (i.e., the skills and knowledge that have developed historically and culturally within their communities). The following sections describe how we implemented the community-driven research framework to train and integrate promotores and recent outcomes.

IMPLEMENTATION OF THE COMMUNITY-DRIVEN RESEARCH FRAMEWORK TO TRAIN PROMOTORES

A Critical Culturally Relevant Learning Process

Gaining Entry. The critical culturally relevant learning process began by gaining entry to the community through a collaboration with a physician who invited the first author to attend a meeting with the promotores at a federally qualified health center. The first author has previous experience working with promotores in the region and is also a Mexican-origin woman who had similar lived experiences as the promotores. Her intersectional identity facilitated her engagement in culturally relevant interactions to engage in a learning process that was cognizant of the promotores' culture and context. After six months, the promotores expressed interest to learn more about how they could learn research skills. This long-term engagement helped create a culturally relevant learning process, gain entry, establish trust, and most importantly, helped the promotores feel they were a community of learners.

Fostering Collaborations. A critical component of the culturally relevant learning process is the way experiential knowledge and knowledge production is used by researchers to establish collaborations. During our initial interactions

with the promotores group, our research team held critical conversations with them and assured them they have the knowledge and lived experiences we consider valuable. This allowed promotores to trust the researchers and ensure that the learning and research processes were embedded within the local context. This critical culturally relevant learning process naturally began through mutual interactions between collaborators as we worked toward a common goal. Expressing mutual respect for the community's culture was an integral element in sustaining a successful collaboration. For example, one of the authors is a male promotor and a recent university graduate who resides in the local community. His intersectional identity as a male university student made it difficult to engage with a group of primarily female promotoras. Nonetheless, his understanding and respect of the culture and the gender dynamics allowed him to engage in a culturally relevant process.

Fostering a Bidirectional Learning Process

Fostering a bidirectional learning process builds on the culturally relevant learning process such that it requires mutual trust and respect from the partners involved. It also requires partners to have a profound sense of respect for diversity and acknowledge the promotores' community assets in the learning process. This process entails the integration of efforts and input from the promotores which can be achieved through the formation of an expert panel and the formalization of a partnership. Finally, this bidirectional process allows for a culturally relevant training approach. Below we describe how we engaged in a bidirectional learning process.

Integrating Research Efforts to Promotores' Initiatives. We began by having conversations with the promotores about the best ways to integrate research into their initiatives which ensured we were aligning our objectives within the community context. Once the group agreed to become co-researchers, we held a convening at the university campus where the promotores learned about three research proposals. The promotores were asked to comment on the feasibility and cultural relevance and decided which project would be of most interest to them. Currently, the promotores group are volunteers at the local federally qualified health center and are primarily involved in outreach and engagement efforts. The partnership has allowed us to subcontract with the health

center and provide funding to support the promotores' efforts related to ongoing university research projects.

Action Agenda. Once promotores selected a project from the three that were presented, we worked with them to establish an action agenda. This was the first step in forming a community of learners. The community of learners ensured that promotores learned about research methodologies as a group and helped the university researchers respect and integrate their values and assets into the research process and the development of trainings. We also asked the promotores what roles they would like to serve in each phase of the research process to determine training needs. We then developed an action plan for our collaboration.

Formation of An Expert Panel. One of the initial agreements was the establishment of an expert panel composed of promotores and researchers. The expert panel method allows individuals who are considered experts in a particular topic to come together and provide feedback. Expert panels have been documented to encourage critical feedback[22] and to increase the impact of quality improvement outcomes in the healthcare field.[23] We formed an expert panel composed of promotores and researchers to ensure a bidirectional learning process and the cultural relevancy of study procedures. The expert panel allowed promotores to serve as consultants on various projects even if they have not completed any formal research methods training and compliance.[24,25] Moreover, after completing data collection, the expert panel met to debrief data collection outcomes and plan dissemination activities. The establishment of the expert panel ensured that we sustain adequate communication through culturally relevant and social interactions which helped sustain a collaboration that acknowledges the community needs and the cultural contex.[7,25]

Affiliation: Formalizing the Partnership. One of our initial commitments with the promotores was to ensure their participation was adequately supported across the research projects. A component of a bidirectional learning process is establishing supportive organizational procedures and a reward structure for promotores. Currently, promotores are recognized as affiliated co-researchers within the Translational Research Center, a research center within the Health Sciences Research Institute at UC Merced. The affiliation as co-researchers provides the promotores with university resources including access to library use, a university email

address, an identification card, access to software, and facilities. Our partnership with the federally qualified health center allowed us to develop agreements and subcontracts regarding salaries, the scope of work commitments, and training support for ongoing independent research projects. These agreements include autonomy to work across research projects while sustaining central support. Our center support consists of a liaison (e.g., research manager, lab assistants) between our research colleagues and promotores to ensure the integration embraces culturally relevant training and provides organizational recognition and support.

Research Compliance Training. Promotores completed standard research, ethics, and compliance training through the Collaborative Institutional Training Initiative and became certified by the Institutional Review Board at the university. The university provided the Collaborative Institutional Training Initiative in English and Spanish, and the federally qualified health center provided a computer lab for those who needed technological assistance. The authors explained to the promotores what Collaborative Institutional Training Initiative entailed and encouraged them to complete this requirement at their own pace. We tailored the training in a culturally appropriate manner using didactic instruction (e.g., asynchronous online modules, research methods synchronous online and in-person sessions) and interactive synchronous training sessions. The combination of asynchronous and synchronous didactic instruction for the completion of the Collaborative Institutional Training Initiative along with the technical support from the federally qualified health center ensured that we continued to promote a community of learners that is embedded in a local context that meets the needs of our partners.

Research Methods Training. The research methods training consisted of various topics including recruitment, consent, participant debriefing, and compensation. Each session was about two hours long and these were led by two of the authors. We integrated a combination of synchronous research methods and interactive training through an open discussion to review and culturally adapt survey materials and research protocols. Sessions began with a research discussion about the survey aims, community sampling strategies, and a review of Spanish translation. Through this process, the promotores commented on the comprehension and applicability of items, while researchers addressed the promotores comments and

questions. Upon these exchanges, the promotores used their own experience to guide the revisions. The promotores had previous leadership and outreach training that was provided by the federally qualified health center. Their previous experience allowed them to think critically about how the materials could be better adapted for the local community. The training was discussion-based to elicit feedback on materials and engage in culturally relevant social interactions that allowed for the learning process to be bidirectional. This ensured that promotores were equipped with the knowledge and resources to complete recruitment and data collection of surveys within their community.

OUTCOMES OF IMPLEMENTING THE COMMUNITY-DRIVEN RESEARCH FRAMEWORK

Capacity Building

Between March 2019 and December 2021, a total of 17 promotores were part of the community–university research partnership. The promotores–university affiliation is embedded in our institution's mission to establish new ways of connecting our knowledge to that of our surrounding community. The affiliation process consisted of infrastructure support from the university to sponsor affiliate memberships. Through the affiliate membership, promotores can be included in institutional review board protocols as co-investigators and study personnel. Many of them continue to be involved in ongoing research projects. Currently, we compensate the promotores for their collaboration through subcontracts and subawards with the federally qualified health center. The promotores have infrastructure support through the university (Table 1). They also have access to institutional resources such as opportunities for professional development workshops and training, service learning, and leadership and workforce development.

Research Collaborations

At the time we wrote this manuscript, the promotores participated in three ongoing research projects (Table 2). The three research projects were approved by the university's institutional review board. On average, nine promotores participated in each of the projects. The implementation of the community-driven research framework facilitated the promotores' participation across all project phases. The research

Table 1. Resources and Workforce Opportunities for Promotores de Salud
Institutional Staff Support • Staff Researchers • Faculty Researchers • Project Managers • Graduate and Undergraduate Researchers • Human Resource Analyst
Institutional Facilities Support and Access • On-Campus office and laboratory space • University Library Access • Recreational Facilities Access • Off-Campus meeting spaces • Training Facilities
Material and Project Support • Project supplies (e.g., computers and devices, office supplies, etc.,) • Software licenses (e.g., CITI, SPSS, Adobe, Microsoft Office, etc.,) • Library databases (e.g., PubMed, PsychINFO, Melvyl, etc.,) • Virtual Private Network • Information Technology Support • Grant Assistance Support
Workshop and Trainings • Collaborative Institutional Training Initiative (CITI) • Online Training and Development Courses • Professional Development Workshops for campus community
Networking Opportunities • Promotores Welcome Reception & Research Presentations • Expert Panel Convenings • University Research Week • Training workshops and event • Professional Conferences

projects have a total of six general phases: 1) preliminary research; 2) community research action plan; 3) research implementation; 4) data synthesis; 5) dissemination; and 6) intervention (Table 3). Promotores participated in all research phases (100%) and 72.33% of the research activities within each research phase (project 1 = 67%, project 2 = 79%, project 3 = 71%), project 3 includes in-progress calculations accounted for participation in each phase (Table 3).

Preliminary Research Phase. The preliminary research phase included community surveillance, identifying issues within the community, literature analysis, and community needs assessments. Project 1 began before the formation of our partnership; therefore, promotores were not engaged in the surveillance of the issue, literature search, or community needs assessment. However, promotores participated in a community assessment, through expert panel discussions and provided anecdotal evidence of emerging issues within the community, which occurred during the research stage.[26] Project 2 was an extension of a prior community research project. As a result of the emergence of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic and the need for rapid response research, the promotores' lived experiences became integral in modifying the project to conceptualize the intersection of coronavirus disease 2019 (COVID-19) and smoking among rural communities (unpublished data, University of California, Merced. December 2021). Promotores participated in a community assessment via focus group on perceptions of COVID-19 public health response and health literacy and behaviors (e.g., smoking, public health guidelines).

Community Research Action Plan. The community research action plan included activities related to project planning (e.g., training, roles, and responsibilities, project timelines), research design (e.g., protocols, data collection instruments), and pre-testing (e.g., piloting survey measures, study protocols). Promotores participated in project planning and pre-testing activities for the three projects, and the research design of project 2. Their involvement as co-researchers across the projects included pre-testing study materials and protocols. They also were involved in the assessment of cultural comprehension, accessibility, and study design.

Research Implementation. The implementation and conducting research phase included activities such as participant recruitment, intervention delivery, participant follow-up, and data collection. To ensure a bidirectional learning approach, promotores planned and led participant recruitment and data collection procedures following ethical considerations and researcher feedback. Promotores recruited participants at local events (e.g., community college fairs, health fairs), community clinics, and home (and virtual) visits to community clients. They invited community members who met study aims to participate in research studies and lead the data collection efforts (i.e., obtaining informed consent, answering questions and concerns, debriefing, and compensation procedures). For project 1, eight promotores recruited participants from September 18, 2019, until October 1, 2019 (2 weeks), and collected data (*N* = 200) over a total of 12 hours. Twelve

Table 2. Study Descriptions	
Project 1	**Study Objective:** Understand the perceptions and misperceptions of marijuana and nicotine use during pregnancy and breastfeeding among adult population. **Data Collection:** $N = 401$ (promotores: $n = 200$; undergraduate research assistants: $n = 201$) **Promotores Involvement:** Survey adaption for community settings, participant recruitment, data collection, and dissemination materials. **Study Implications:** Findings will guide the development of health materials and communications that will directly target common misperceptions about risk and benefits of marijuana and nicotine use during pregnancy and breastfeeding.
Project 2	**Study Objective:** Examine the preferences and policy implications of smokers and non-smokers to understand the intersections of COVID-19 and smoking behaviors. **Data Collection:** $N = 773$ (promotores: $n = 141$; undergraduate research assistants: $n = 132$; online Qualtrics database: $n = 500$) **Promotores Involvement:** Survey adaption for community settings, community needs assessment, participant recruitment, data collections, and disseminations materials. **Study Implications:** Inform Food and Drug Administration policy implications and inform the development of health materials and communications regarding COVID-19 and smoking.
Project 3	**Study Objective:** Evaluate the impact of a community-based virtual asthma management home visit interventions for underserved regions. **Data Collection:** In progress (aim: $N = 50$) **Promotores Involvement:** Virtual asthma management education for community members, coaching (e.g., medical trainees), survey adaptions for community settings, participant recruitment, data collections, and dissemination of materials. **Study Implications:** Evaluate efficacy of virtual asthma management home visits for mitigating asthma (e.g., asthma knowledge, behavioral changes, and healthcare utilization) amongst rural patients. Pilot a cross-training community-based education program for medical trainees.

COVID-19 = coronavirus disease 2019.

university research assistants also helped with recruitment and data collection. In comparison to the promotores, the research assistants recruited participants and collected data ($N = 201$) between April 20, 2019, and March 21, 2019 (6 weeks), over a total of 21 hours.[26] The difference in the time frame for data collection between promotores and university research assistants exemplifies how the integration of promotores as co-researchers enhances the efficiency of CBPR methodologies.

For project 2, eight promotores recruited participants, followed up with participants, and collected data from September 8, 2020, through December 16, 2020 (14 weeks), via a high level of coordinated CBPR methodology. The promotores collected a total sample size of 141 hard-to-reach community members through a socially distant methodology (e.g., online surveys, phone surveys, and paper mailed surveys) during the SARS-CoV-2 pandemic when most researchers turned to online studies, neglecting hard-to-reach community members.

Data Synthesis and Translation. This phase included data entry, data analysis, and data interpretation (i.e., reviewing data to reach conclusions). The promotores participated in

data interpretation in project 1. Researchers shared data analysis results with them and discussed how the results translate to their community and the practical implications. Through this approach, we aimed to engage promotores and researchers in discussions to translate the findings into place-based and culturally relevant action plans that will be part of the dissemination phase. Upon completion of the data analysis of project 2, researchers presented the data analysis and worked with the promotores to discuss the practical implications of the results.

Dissemination. The dissemination phase is currently ongoing. The promotores will participate in identifying effective local strategies to disseminate research findings within their communities. The promotores have previous experience hosting town halls, educational forums, and meetings to disseminate information to stakeholders and community members. They will work closely with university partners to identify additional public relations and marketing activities. We will also request feedback from the promotores to ensure we are developing and refining dissemination and translation materials that are culturally relevant and appropriate for target

Table 3. Promotores Involvement in Research Projects				
General Research Phase	**Research Activities**	**Project 1**	**Project 2**	**Project 3**
Preliminary research	Community surveillance		✓	
	Literature search			X
	Community needs assessment (formal)			
	Community needs assessment (informal)	✓	✓	✓
Community research action plan	Planning	✓	✓	✓
	Research design	X	✓	X
	Pretesting	✓	✓	✓
Research implementation	Participant recruitment	✓	✓	✓
	Intervention delivery (if applicable)			✓
	Participant follow-up		✓	✓
	Data collection (e.g., informed consent, debriefing)	✓	✓	✓
Data synthesis	Data entry	X	X	X
	Data analysis	X	In progress	In progress
	Data interpretation	✓	✓	In progress
Dissemination	Scientific publishing	X		Anticipated
	Community (lay) publishing	✓	Anticipated	Anticipated
Intervene	Health communication campaigns			In progress
	Community intervention			In Progress
	Testing intervention			In progress
	Total involvement:	67%	79%	71%

✓ = activity complete; X = did not participate in research activity.

Average Involvement in Research Activities: 72.33%.

audiences. Dissemination and translation strategies for the community will include informational workshops, webinars, social media, and grassroots advocacy that can help research findings have actionable implications.

Intervention and Impact Evaluation. The intervention and impact evaluation phases are currently in progress. Over the last seven months, the promotores have been involved in the implementation of a community-based home visitation asthma management intervention. They have participated as coaches for medical trainees (e.g., medical students, pre-medical and pre-health students, and Spanish medical translators) in this intervention and are delivering the curriculum virtually to underserved asthma patients in the region. The next steps include the overall impact evaluation phase.

DISCUSSION

A growing body of literature in the field of CBPR has pointed towards the importance of integrating CHWs or promotores to mitigate the negative experiences of research participants.[3–5,7,24,25] Many times, collaborations are challenged by research agendas that do not meet community-identified needs, but rather predisposed research agendas.[27,28] The community-driven research framework provides a process for researchers to integrate and train promotores as co-researchers involved in all stages of the research process. The framework fills a gap in the literature by providing a process through which researchers can engage in a culturally relevant learning process that allows for gaining entry to the community, fostering trust, and initiating a mutual collaboration that is embedded within the local context and needs of the community. Additionally, the community-driven research framework provides a model for the implementation of a bidirectional learning process that integrates research efforts with local initiatives while formalizing a partnership and providing the necessary training in a culturally relevant manner. We illustrate our model through key examples which exemplify the process for implementing each phase as well as providing key findings on the utility of the community-driven research framework. The results suggest that the community-driven research framework is a useful model to guide researchers who are interested in providing formal training for the broader integration of promotores in the research process.

Limitations

Despite our success in implementing the community-driven research framework for the training and integration of promotores as co-researchers, we acknowledge there are limitations to our proposed model. First, the community-driven research framework is not a linear model, and it requires much time and effort from university researchers and community partners. The community-driven research framework is an iterative process that requires various approaches and constant engagement from the partners to sustain the collaboration. The constant engagement is oftentimes dictated by the research projects, but also by the needs of the promotores as they are learning about the research process. In our case as community-engaged researchers, we oftentimes find ourselves balancing our time between meeting research objectives as well as dedicating time to the professional development of promotores as co-researchers. Another limitation is the issue of funding for sustaining the partnership and supporting the continuous training of promotores. We recommend that university researchers allocate funding for the training of promotores and dissemination and translation of research findings. Allocating research funds for dissemination and translation activities allows the continuous engagement of promotores in the research process and provides the opportunity for promotores to develop community activities related to the research. Additionally, the community-driven research framework is not the perfect model for resolving power differentials in CBPR projects. A limitation of the community-driven research framework is that promotores come with various levels of skills and depending on their skill level some may be more involved than others. For example, at the time we wrote this manuscript we were in the early stages of the partnership where many of the promotores did not want to be co-authors. One of the authors is a promotor a recent university graduate student. He indicated an interest in co-authoring the manuscript and was instrumental in all phases of this publication. Overall, we recommend acknowledging this process as a model to build on the existing skills of the promotores.

Implications

The implementation of the community-driven research framework has implications for the development of culturally sensitive public health interventions as well as for designing research that is centered around the cultural and social context of the community. The community-driven research framework allows for promotores to be involved both as a researcher and community member which in turn have implications for the development of culturally sensitive practices to successfully engage and retain underserved populations in research studies all while addressing health disparities. Furthermore, we have observed that the community-driven research framework has allowed promotores to expand their skill level over the years of our partnership. For example, one of the promotores has now been hired by the federally qualified health center to assist with the organization and management of the promotores group. This demonstrates that the training and research skills acquired by the promotores provide them with the option to seek additional professional opportunities which has implications for the sustainability of partnership as well as the importance of providing a model that aims to build community capacity. Finally, the integration of promotores as co-researchers has allowed us to pursue additional funding opportunities that require close collaborations with communities. We recommend CBPR scholars adapt this framework to their research to consider the larger social and cultural context of partnered communities.

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