HEALTH EDUCATION RESEARCH Vol.27 no.4 2012
Pages 555–571
Advance Access published 13 September 2010

Partnership readiness for community-based participatory research

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Received on April 1, 2010; accepted on August 13, 2010

Abstract

The use of a dyadic lens to assess and leverage academic and community partners' readiness to conduct community-based participatory research (CBPR) has not been systematically investigated. With a lack of readiness to conduct CBPR, the partnership and its products are vulnerable. The purpose of this qualitative study was to explore the dimensions and key indicators necessary for academic and community partnership readiness to conduct CBPR. Key informant interviews and focus groups ($n = 36$ participants) were conducted with academic and community participants who had experiences with CBPR partnerships. A 'framework analysis' approach was used to analyze the data and generate a new model, CBPR Partnership Readiness Model. Antecedents of CBPR partnership readiness are a catalyst and mutual interest. The major dimensions of the CBPR Partnership Readiness Model are (i) goodness of fit, (ii) capacity, and (iii) operations. Preferred outcomes are sustainable partnership and product, mutual growth, policy and social and health impact on the community. CBPR partnership readiness is an iterative and dynamic process, partnership and issue specific, influenced by a range of environmental and contextual factors, amenable to change and essential for sustainability and promotion of health and social change in the community.

Introduction

Community-based participatory research (CBPR) is increasingly viewed as a promising approach to reduce health disparities and improve health in our communities. CBPR is defined as a collaborative approach to research that equitably involves all partners in the research process and aims to combine knowledge with action to achieve sustainable, social change [1, 2]. CBPR methods seek to identify and build on existing strengths, resources and relationships and to support structures and processes for academic–community partnerships to improve health [3].

Clearly, CBPR depends on partnerships, yet the strategies and best practices to develop and maintain partnerships are rarely taught in academic or community settings [4]. Our experiences [4–10] and that of others [1, 11–13] indicate that many challenges exist for partners to conduct CBPR. While some partnerships are successful in implementing CBPR projects and promoting sustainability, others are not. Sustainable social change can be more fully realized by taking into account the 'readiness' of the collaborating partners and the newly formed partnership dyad with all phases of the CBPR process [14].

doi:10.1093/her/cyq050

Community readiness, an extension of the individual-level Stages of Change Theory [15] to a community-level theory, is defined as the degree to which a community is prepared to take action on an issue [16–22]. The theory is grounded in the assumption that a community can be moved through a series of stages to develop and implement effective prevention programs. Community readiness is conceptualized within six dimensions: (i) community efforts, (ii) community knowledge of the efforts, (iii) leadership, (iv) community climate, (v) community knowledge about the issue and (vi) resources related to the issue [19, 21]. Although the community readiness theory may be useful to guide planning and intervention implementation in community settings, it reflects neither the readiness of the partnership dyad nor the processes and methods of CBPR.

'Team science readiness' is conceptualized as three ecological based categories of collaborative readiness among transdisciplinary teams: (i) contextual–environmental factors, (ii) intrapersonal characteristics and (iii) interpersonal factors [22, 23]. The contextual–environmental factors encompass both the physical and social environments of the transdisciplinary teams. Intrapersonal factors include individuals' research orientation and leadership qualities. Interpersonal factors consider the group size, span of disciplines represented and history of collaboration [24]. While this emerging conceptualization of team science readiness provides guidance for readiness among partnerships engaging in CBPR, it does not address the unique dynamics of academic–community partnerships.

Currently, there are no reports of systematic investigations using a dyadic lens to assess and leverage academic and community partners' readiness to conduct CBPR. With a lack of readiness to conduct CBPR, the potential products of the partnership are vulnerable. The purpose of this study was to address the following research question: what are the dimensions and key indicators necessary for academic–community partnership readiness to engage in CBPR?

Materials and methods

Design

We used qualitative methods, including six semi-structured key informant interviews (three community and three academic partners) and three focus groups (total $n = 30$), to address the research question. The study investigators, a nurse researcher (academic partner) and a director of community nonprofit agency (community partner) both experienced in the methods, conducted the key informant interviews first to explore the dimensions and indicators of partnership readiness. After an initial analysis of the interviews, we conducted three focus groups to further validate the findings. Each participant signed an informed consent document and agreed to be audiotaped. All interviews and groups were recorded and transcribed verbatim. The study received approval from the university's Institutional Review Board.

Study Advisory Board

During the first month of the study, we established an eight-member advisory board consisting of three members of the academic university [Clinical and Translational Science Award Community Engagement Core researchers], three members from the community (community partner's executive group members) and two representatives from grassroots community organizations. The advisory board provided oversight of the study, assisted with developing the tools for the key informant interviews and focus groups, identifying and recruiting participants and the analyses of the findings.

Participant identification and recruitment

Based on recommendations from the advisory board, we purposively selected community members and academic investigators who had experience with CBPR partnerships (either favorable or unfavorable). We stratified participant recruitment for the interviews and focus groups to achieve a heterogeneous spectrum of the academic and community partners. For example,

we chose to recruit participants from diverse leadership levels (e.g. from chief executive officials and senior research faculty to grassroots community members and junior researchers) and with varying experiences in the scope of CBPR projects (i.e. from federally funded projects to unfunded projects). We provided compensation ($50 gift card) to community members for their participation.

Protocol development and data collection

We initially drafted semi-structured, open-ended questions for the key informant interviews that focused on perceived definitions, levels and examples of readiness based on participant experiences. We piloted the initial questions with the advisory board and found they had difficulty understanding the meaning of the structured questions, which resulted in limited responses. The board recommended that participants 'tell stories' of their experiences, and for the interviewers to use probing questions to fully uncover any underlying perceptions of partnership readiness. As a result of these recommendations and further pilot testing of the interview questions, we modified the questions and adopted similar methods described by others [19, 22] to explore readiness by asking participants to tell us about their best and worst experiences with partnerships. For example, we asked participants to describe a 'best experience' with academic–community partnerships. As the story progressed, we asked probing questions about how and why the partnership was formed; perceptions of why the partnership worked (or did not work); compatibility of the partners, organizations and community; the skills and competencies of the partners; the structure and processes of the partnerships and sustainability factors. We then used the same process of storytelling and probing questions about 'worst experiences' with CBPR partnerships. Near the end of the interview, we asked participants to reflect and expand on the differences of the two experiences and to provide guidance on how the readiness of the partnerships was different. We concluded the interviews by asking participants to describe factors of readiness that they felt were important for partnerships to conduct CBPR.

After an initial analysis of the interviews and drafting a preliminary model of partnership readiness, we conducted three focus groups. One focus group included academic investigators only, one group had community members only and the third group was mixed. During the focus group sessions, we described the initial process (e.g. key informant interviews and data analysis) to develop the model, gave the participants a draft copy of the emerging partnership readiness model and provided a brief verbal overview of the model. To gather initial input on the model, we asked, 'What are your first thoughts or feedback on the model?' We then explored each major domain of the model with open-ended questions, such as what does this (i.e. 'goodness of fit') mean to you? How important are (i.e. shared values) to partnership readiness? Have you had similar experiences? If so, what were they? What is missing? Is there anything important left out for us to consider about readiness of partners to conduct CBPR?

The interviews and focus groups were audiotaped and an observer (study board member) took notes on verbal statements and nonverbal cues. Immediately following the interview/focus group session, we debriefed and discussed the interview/group session, reflecting on important points made by the participants, as well as and our own personal reflections on the experience.

Data analyses

For the initial analysis of the key informant interviews, the investigators, two members of the advisory board and an expert consultant listened to the audio recordings and reviewed the transcripts. A 'framework analysis' approach [24, 25] was used that included five key stages: familiarization, identifying a thematic framework, indexing, charting, mapping and interpretation. The process of data analysis began during the data collection (familiarization), by skillfully facilitating discussion and complementing transcript data with observational data. The major goal of this stage was to immerse in the data and gain a sense of the major themes of

the interviews. The next stage, thematic framework development, was conducted by writing memos in the margins of the transcripts in the form of short phrases, ideas or concepts and development of categories. Descriptive statements were formed and an analysis was carried out on the data under the questioning route. Indexing followed, which included sifting the data, highlighting and sorting out quotes and making comparisons both within and between participants/groups. The fourth stage, charting, involved rearranging the quotes under the newly developed themes (goodness of fit, 'capacity' and 'operations'). The final stage, interpretation, allowed the investigative team to be imaginative and analytical to see relationships and linkages between the data as a whole. The interpretation considered the words, context, internal consistency, frequency and extensiveness of comments, specificity of comments and intensity of comments.

During the analyses phase, the team members (investigators, advisory board members and consultant) worked independently to review the transcripts and write memos. A team meeting was held to discuss and cross-check individual analyses, reconcile analyses to form initial categories and themes and then refine these categories based on discussion and consensus. Following this meeting, the team was assigned to index and sort the data to support the themes independently, and then came back together in subsequent meetings to further refine the categories, jointly complete the charting phase and diagramming of the data and the final interpretation. Validity of the findings was enhanced with the triangulation of multiple sources of data (interviews, observation, transcripts) and multiple investigators analyzing the data with final consensus and convergence of findings [26]. Three key informant participants reviewed the analyses (i.e. member checks) for validation of the findings.

Data from the key informant interviews resulted in a preliminary model that was used to facilitate focus group discussion and further data collection. Analyses of the focus group data guided the refinement and further synthesis of the model by repeating the steps as described above.

Results

Participant profile

Academic participants included senior, mid-career and junior researchers from medicine, nursing, allied health and dentistry. Community participants included public school officials, pastors, city administrators, officials and staff members of non-profit and profit community organizations and grassroots community members. The mean age of participants (n = 36) was 53.2 years (SD = 10.48; range = 25–68 years). Forty percentage of the participants were African American, 6% Hispanic and 54% White and were representative of our state's demographics. The majority of participants (89%) had a Master's degree or higher. The participants had experiences working with academic–community partnerships for an average of 14.2 years (SD = 9.4; range = 1–35 years) and had participated in an average of 8 CBPR-related projects (SD = 8.6; range = 1–50).

Model development

Data from the stories of best and worst experiences revealed similar patterns that we coded and categorized as major dimensions of partnership readiness. Overwhelmingly, participants described compatible relationships with partners they trusted and with whom they shared positive experiences. Descriptions of partnerships' 'success' or 'lack of success' with meeting goals revealed consistent patterns in the skills and abilities of the partners to conduct CBPR and how structures and processes are either in place or lacking during the partnership. We originally derived six major dimensions of partnership readiness. Subsequent focus group data collection and analyses guided consolidation, resulting in three major dimensions of partnership readiness as shown in Fig. 1.

Definitions and assumptions

CBPR Partnership Readiness is defined as the degree to which academic–community partners 'fit' and have the 'capacity' and 'operations' necessary

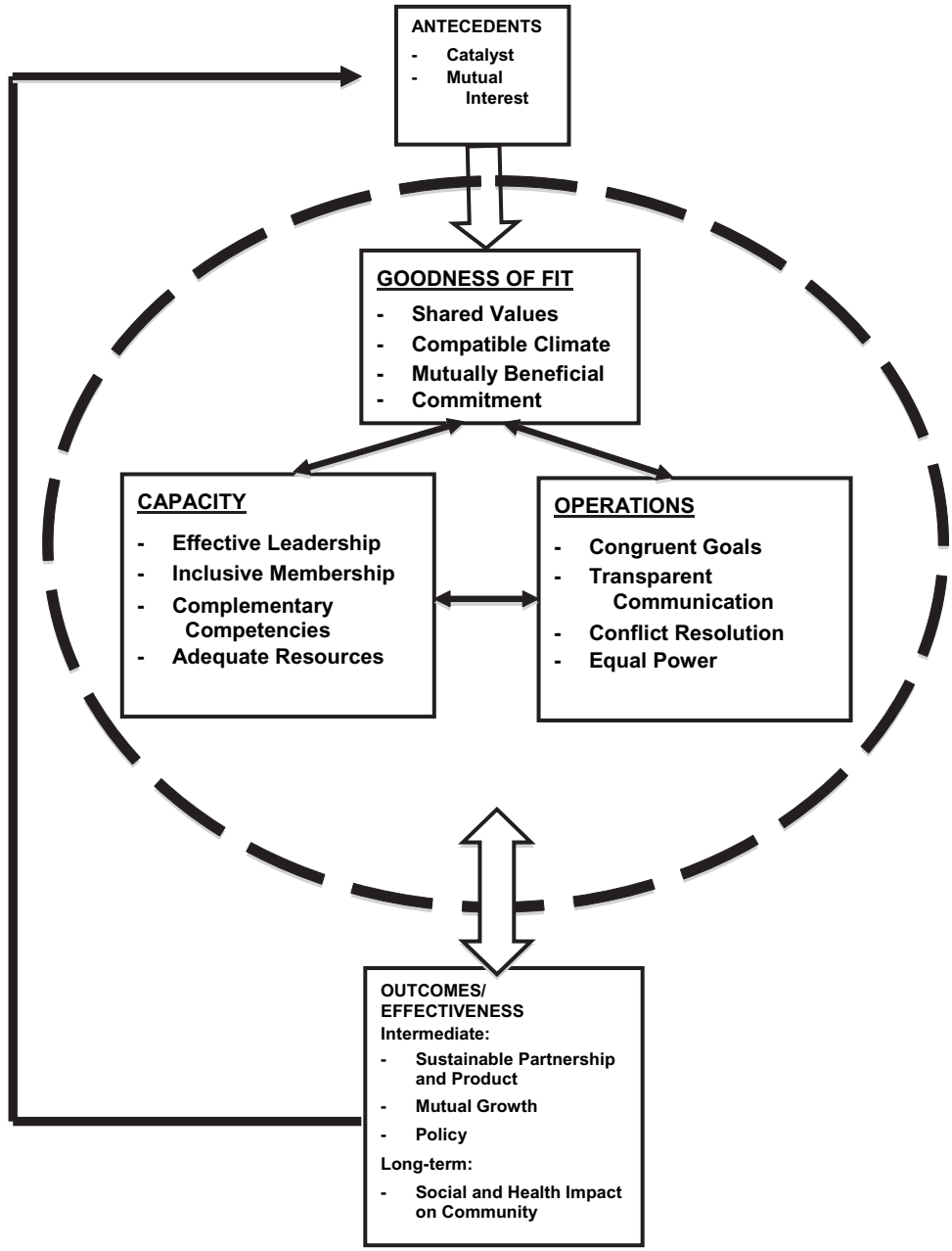

Fig. 1. CBPR partnership readiness model.

to plan, implement, evaluate and disseminate CBPR projects that will facilitate mutual growth of the partnership and positively influence targeted social and health needs in the community. The three major dimensions of partnership readiness are goodness of fit, capacity and operations.

Readiness is an iterative and dynamic process as shown in Fig. 1. To determine the partnership's

readiness to conduct CBPR, the partners need to first assess their goodness of fit. If there is not a good fit, then the other dimensions of partnership readiness and the desired outcomes are in jeopardy. If the partnership is determined to have a good fit, the next step involves assessment of the capacity and operations of the partnership. Capacity and operations can be viewed concomitantly and are equally vital to the success of the partnership and intended outcomes. After the initial assessment of partnership readiness, an ongoing assessment continues in a bidirectional flow. Each dimension is interdependent on the other, and a change in one dimension can impact the other dimensions and indicators.

The assumptions of the model are (i) the dimensions (goodness of fit, capacity and operations) need to be viewed within the community, organizational, partnership and partner contexts; (ii) readiness is issue specific; (iii) readiness is partnership specific; (iv) varying levels of readiness exists and are influenced by a range of factors; (v) readiness is both a state and a process and is amendable to change; and (vi) readiness is essential for long-term sustainability of the partnership and community outcomes.

Antecedents

We identified two antecedents that typically initiate partnership formation: catalyst and mutual interest. All participants described some type of catalyst that activate a partnership, whether a person, a grant opportunity, new information on a health or social issue in the community or a combination of these. Among our participants, funding opportunities are typically the catalyst for CBPR partnership formation, with one individual from an organization contacting another organization or individual to collaborate with a grant submission. Participant data also support a pattern of initial mutual interest to join as partners that precede the actual partnership formation.

Model dimensions

CBPR partnership readiness is a complex, multidimensional construct. Data analyses revealed three major dimensions of partnership readiness: goodness of fit, capacity and operations.

Goodness of fit

Goodness of fit is defined as the compatibility and suitability of the partnership for the proposed CBPR project. The 'fit' of a partnership considers important building blocks for a successful partnership and the intended products. Key indicators of goodness of fit are shared values, compatible climate, mutual benefit and commitment.

The first indicator of goodness of fit is 'shared values'. For a CBPR partnership to be successful, partners need a sense of shared standards and principles. Partners tend to migrate to others with whom they are comfortable and perceive similarity in values and styles of working together. Common values contributing positively to CBPR partnerships are collaborative spirit, trust, flexibility, honesty, transparency, ethical, forward looking, equitable, open minded, and a respect and appreciation of cultural differences. An academic partner described the type of partners with whom she prefers to work as follows:

> For me, it has a lot to do with personalities of the folks who are involved, the way they communicate …. Transparency and being open to information, and sort of matching my philosophy and where I feel comfortable and can relate …. [My partners] have similar ways of thinking, doing, and communicating and relating to others, and that they appreciate my input, and that I feel equitable and part of the team and decision-making of the team. That's important and I would imagine it's important to just about everybody, you know. It's one thing to be given a job to do. And, it's another to be part of the process.

The second indicator of goodness of fit is a 'compatible climate'. Climate refers to the political and social contexts of the environment, including attitudes, beliefs and trust. Often, the climate is assessed based on past history and prior knowledge of the partners, their respective organizations and the community. Prior history and experiences may yield positive attitudes and trust which can facilitate the partnership readiness. However, frequently, the

perception of the compatibility of the climate is based on perceived negative or challenging histories. Data reveal that partners who have experienced institutional racism and/or being exploited in the past often harbor mistrust. Minority community participants in this study used terms such as 'guinea pigs', 'great white power', 'suspiciousness' and 'trust issues' to describe their relationship with the academic institution and investigators. Some perceived prior partnerships were not always equitable (power, resources), products were not disseminated and many CBPR projects did not plan for sustainability. A local pastor, describing his church's involvement with several grant-driven projects, stated:

> The black church has become the guinea pig for science. Everybody says, 'Wow. This is wonderful. Let's get this immediate thing done.' Then we go back to business as usual. There's no sustainability. … This has now happened time after time here, and we are concerned about this.

These historical experiences and beliefs are important to acknowledge and address prior to entering a new partnership and/or continuing an existing partnership. Negative histories need to be discussed and mediated, with the goal of establishing or reestablishing credibility. The partners who experienced inequitable partnerships and mistrust recommend formalized structures, such as memorandum of understandings (MOUs) and/or contractual agreements. Without appropriate acknowledgement and feasible processes in place to ensure power balances and equity, mistrust can continue and cause relational issues that will negatively impact the partnership and potential products. An academic researcher indicated:

> To really move forward, trust must be built and there must be forgiveness on the part of each other. And … some level of tolerance for not knowing and for discovery.

An understanding of attitudes and beliefs, as well as other contextual–environmental factors, is needed to ensure the partnership and intended project is a good fit. Additional considerations are awareness of 'how things get done' in these settings such as the structures (i.e. governing bodies, associations, policies), processes (i.e. consenting or approval, procurement and allocation of resources), communication exchange, decision making, leadership influences, pace and timelines and other potential obstacles. Navigating the academic organizational environment, such as institutional review board processes, academic institutional procurement practices, hiring policies and practices (especially the lengthy time requirements) and 'academic politics', often perplex community members who work with academic partners. Conversely, academic investigators have difficulty understanding and navigating the complex social networks, leadership infrastructures, community time and pace and capacity (or lack of) in community organizations and communities. One academic partner stated:

> … it took two years just to get an agreement on the space and [to start the project]. They [community organization] didn't have the staffing and configurations we had. We had multiple barriers in getting things done through their system and we learned many lessons. … We all need a better appreciation of each others' ways of doing things and getting things through our complex systems.

The third indicator of goodness of fit is that the CBPR partnership and projects are 'mutually beneficial'. Often, partners have motivational factors or agendas that drive their participation. Academic partners reported agendas of publications, promotion and tenure leading toward career advancement. Community partners reported agendas of social justice, community jobs and resources and networking opportunities. Both groups perceived the new knowledge gained and the potential benefit to the community as a motivation to work together. Almost all participants indicated that the partnership and project should benefit their respective organizations. Transparent discussion of anticipated mutual benefit to each partner and their respective

organizations appears to foster the relationship and contribute to mutual understanding and growth. For example, a public school official stated:

> We have so much to do in the district and we have shrinking resources to accomplish them. We have gotten to the point where we are very selective, and only projects that match our mission, provide resources, and are good for our students and families are the ones we are going to choose to engage with …. The partnerships that are requiring too much time from us and not providing a major gain, you know, we just kind of put aside or say no to. …When we do engage, we stay if we gain from it, and they [other partners] gain from it.

All study participants agreed that the proposed projects should be beneficial to the community. Essential benefits of participation, as described by the community participants, included not only improved health and social status, but also sustainability and community empowerment. This is often the key question that community partners consider before engaging in the partnership. However, numerous participants repeatedly expressed concerns about grant-driven CBPR partnerships and projects that did not plan for sustainability and long-term benefits to the community. A community participant stated:

> What does the money do? Does the money simply buy the nice shiny stuff to say we've done this or the money to empower the folks, to train the folks, to equip the folks … you know, so that when the money is done you can look at something, look at someone, and see what ends up being the sustainability at best.

The final indicator of goodness of fit is 'commitment' at all levels. Commitment may encompass availability of time and resources (i.e. finances, people, equipment, space) of the partners, their organizations and the community. An initial MOU signed by all approving officials may be beneficial and reflects the organizational leaders' commitment to the partnership, especially with resources. However, an MOU usually does not address the time and committed persons, often described as 'champions' that are needed for partnership readiness. CBPR partnerships require demanding time commitments with frequent meetings and project planning, implementation and evaluation expectations. Data reveal that flexibility is needed, along with committed persons at each level of the organization (i.e. persons directly involved, their bosses and upper-level leadership), to move the partnership and the project forward through both high and low points and to sustain efforts over time. One academic partner described her relationship with a community organization for the past 10 years through periods of intermittent funding and resources:

> There was one thing that really made [our partnership] successful. It is truly having a champion in each of us with similar goals. Having a champion, not only in the partnership, but also in the organizations that truly works toward meeting the goal …. A clear definition of deliverables with an actual commitment to those deliverables [is needed] …. It's not always in a time-framed way, but there is still the trust and commitment there that we will get it done.

Focus group participants rated goodness of fit as the priority starting point to assess partnership readiness. Data revealed that if a partnership does not meet these fitness criteria, the partners must consider tough questions: 'Can the issues be resolved?' and 'Should we proceed?' Study participants reiterated that engaging in conversation about values, climate, benefits and commitment is imperative for developing the trust and credibility with each other and the community to move the CBPR project forward.

Capacity

Capacity is defined as the ability and capability of the partners, their organizations and the community to conduct CBPR, as well as the capacity for sustainability and social change. Capacity is partnership,

issue or project specific and can change rapidly during a partnership. The indicators of capacity are effective leadership, inclusive membership, complementary competencies and adequate resources.

'Effective leadership' is considered an important determinant of the partnership and projects' success. Leadership qualities noted by study participants are skill, experience, flexibility, vision, respect, trust, cooperation, collaboration, credibility and good communication. An academic investigator stated the following about leadership:

> The leadership is part of the reason why this was a successful partnership. The leadership is a shared leadership, depending on the tasks to be accomplished. For example, [name of community organization] had a diabetes initiative, and my current program [diabetes outreach initiative] began working together to develop a common strategic plan. Sometimes I take the lead on certain tasks, and other times they take the lead. So, there's a lot of reciprocity between the leaders of the groups.

The partners should consider if they are the appropriate leaders for a particular project, considering the complexity and skills required, their experience and expertise and their credibility with the community and other stakeholders. The leaders of the CBPR project, at minimum, need skills not only to manage project operations but also have the appropriate connections, be able to motivate and inspire others and be credible and legitimate in the proposed setting with the key stakeholders. An academic partner stated about the importance of a credibility and respect among the leadership:

> You know [name of leader] really helped us through that. She helped us through that crisis, so again it's leadership, but the kind of leadership that embraces her expertise as a professional nurse and also a person who has very, very respectable understandings about community involvement.

Partnerships usually have multiple leadership plans with partners performing different leadership roles. Identification of the major roles and responsibilities of the leaders and guidelines to assure accountability to the partnership and the CBPR project is considered essential.

The second indicator of capacity is 'inclusive membership'. Membership encompasses consideration of inclusion of appropriate influential members from the community, organizations and potential partners that are needed not only to carry out the CBPR project but also for the sustainability and promotion of social change. A mix of age, gender, race/ethnicity and differing viewpoints is necessary. Additional membership considerations are expertise, knowledge, cultural competence, credibility and experience. Community participants strongly recommended grassroots community involvement to support long-term sustainability. Lay membership and their buy-in are important for the visioning and implementation process and for the long-term desired health and social changes. A church pastor indicated:

> Nobody keeps it alive … there needs to be somebody other than a pastor, other than a bishop. It's the nature of the church … some (pastors and bishops) see it prudent to dismantle everything their predecessor did and it can be dismantled …. An ideal program would be like a good hymn. There are hymns that march around things and do not depend on who stands in the pulpit or what their vision is, because it is so ingrained in the life of the church. It has been carried on from generation to generation by leaders in the laity, then it becomes part of the church.

Evaluating existing membership and identifying the need for new members are often an iterative process as the partnership and CBPR project proceeds. Valuing and recognizing the contributions of participating members are important for sustaining membership.

'Complementary competencies' are the third indicator of capacity. Competencies are defined as

skills or abilities, behaviors and knowledge. Table I lists CBPR partnership competencies identified by interview and focus group participants. Often the academic partner brings certain competencies to the partnership (i.e. grant writing, research design and methods) and the community partner brings in a different set of competencies (i.e. navigating the community and knowledge of community context). A community participant stated:

> They [academic partners] bring something to the table. We bring something to the table. We work together and pool resources to complement each other and make it work … to where we both receive tangible benefits.

Participants did not expect that each partner be able to perform each task or to have expertise or knowledge with all areas, but that the partnership's net effect of competencies is complementary and adequate to conduct the proposed CBPR project.

The final indicator of capacity, 'adequate resources', includes finances, people, equipment and space. An assessment of adequate resources to support all phases of the proposed CBPR project is essential, including the availability of current resources, as well as the availability of resources over time, especially when grant funding or other revenue sources end. Frequently, community partners may not have the financial resources of large academic organizations, but still provide other resources, such as people with expertise and knowledge of the community, which can be pivotal to the project's success. Several participants indicated that projects are often underresourced and flexibility is needed to revise the project's goals and time line. Others reported that using unpaid volunteers, especially in community settings, becomes burdensome not only to people but also organizations. Community participants reiterated that a transparent mechanism to share resources (especially grant funds) within the partnership is necessary.

The partnership's capacity will not only impact its sustainability over time but also the CBPR projects undertaken. Unsuccessful partnerships, described by participants, usually had deficits in

Table I. *List of potential competencies to be considered for CBPR partners*

Skills or abilities
Navigating the community
Navigating the organizations
Issue selection/needs identification
Conducting community assessments
Literature searches/evidence-based data
Grant writing state/foundation level
Grant writing federal/National Institutes of Health level
Obtaining Institutional Review Board approval
Obtaining community consent
Technical/IT skills
Organization skills
Political skills
Theoretical frameworks
Project planning and design
Research methods proposed (focus groups, key informant interviews, experimental design, etc.)
Project implementation
Data analyses
Project evaluation
Dissemination (media and local)
Dissemination (scientific journals)
Experience maintaining databases
Recruitment and retention of participants into research
Instrumentation/measures
Managing budgets
Managing personnel
Federal grant management and operations
Training others
Networking
Translating findings to action
Affecting policy change
Working with advisory boards and/or steering committees
Behaviors
Flexible
Culturally competent
Cultural humility
Willing to share power
Self-reflective
Humble
Collaborative
Good communicator
Good negotiator
Transparent
Honest
Good listener
Knowledge
Community stakeholders
Community preferences
Community culture and context
Organizational culture and context
CBPR principles and processes

their capacity, especially with leadership and resources. On the other hand, successful partnerships reflected on growth and maturity in their capacity over time and interdependence with goodness of fit and operations of the partnership.

Operations

The third dimension of the CBPR partnership readiness, 'operations', is defined as operating structures and processes. The operations of a partnership usually have a defined infrastructure with leadership and defined processes. These may include established meeting times, agendas and structure (i.e. Roberts Rules of Order), as well as steering committees, task forces and/or advisory groups. The key indicators of operations readiness extend beyond this basic infrastructure of meeting arrangements and encompass the following: congruent goals, transparent communication, conflict resolution and equal power.

The partnership 'goals' should be clearly defined and shared by partners from the onset, as well as the goals for the mutually defined CBPR projects. Clearly delineated and mutually agreed upon goals provide a roadmap to guide the partners' work together to achieve the desired outcomes of the partnership and project. This is often described as a negotiated process, in which the community partner tended to prefer service-oriented needs, and the academic partner tended to have more research and data-related needs. A community participant stated:

> We need to be on the same page about the direction of the partnership and whatever the partnership intends to do. This often has to be worked out from the beginning …. If the goals are not clear, then everything in between will send people spinning off in different directions.

'Transparent communication' is another key indicator of CBPR operations. Participants recurrently identified the need for open and transparent decisions and operations of the partnership and CBPR project. Identification of communication preferences is a vital first step. For example, academics often preferred e-mail contacts, and community partners in our study often preferred face-to-face or telephone communication. Participants stressed that a clear and established mechanism of communication is needed, as well as expected frequencies of communication, what communications are needed for what levels of decisions and with whom the communication should occur. An academic participant stated:

> Communication exchange processes are important to figure out early in partnership. You need to figure out who needs what communication when, how, and where. No one likes secret meetings or being left out of discussions and the communication needs to be transparent, informative, and clear to all parties at all times.

'Conflict resolution' emerged as another key indicator of partnership operations. Data revealed that a determined process for resolving conflicts is needed, whether consensus, majority or other means, and should be transparent. With groups who had larger and more diverse partnerships, processes for conflict resolution can be 'contentious' and 'arduous'. However, the participants acknowledged that involving the key stakeholders within the conflict, as well as leaders who are willing to accommodate and compromise, are important to this process. An academic participant indicated the commitment of the partnership to resolve conflicts:

> The leaders in the community were very assertive, you know …. You had people, elected officials and persons who had created their reputation in the community, that were all around the table and you know were not about to have that compromise of the integrity. … There were contentious meetings about who was in control … but we figured out the arrangements and it was a way in which the leaders [names] sort of figured out how to blend together …. We did it and it wasn't smooth running … but there was the commitment to figure out how to do this.

A fourth key indicator of CBPR partnership operations is 'equal power'. Many community participants, especially minority participants and those representing small community organizations such as nonprofits, had negative experiences with 'paternalistic' academic organizations and perceived power differences and inequity with the academic partners. Power is often a control issue, and typically both partners desire control over certain, if not many, aspects of the partnership and project. Money and resources often dictate power in partnering relationships, and academic institutions rarely partner with similarly resourced agencies in community settings for CBPR.

Among our participants, academic organizations are the usual recipient of funding for CBPR projects with a subcontract or service agreement to the community organization. This structure often reflects the requirements (eligible applicants) of the funding organizations, yet gives a disproportionate share of financial power to the academic institution. Academic partners in our study, although frequently addressing the need for sharing power, often do not meet the expectations of the community partners. As an example of differing perceptions and a disconnect of perceived power sharing, an academic partner described one of his best CBPR experiences with a community organization in which he had been especially proud of the shared power and equity among the partners. On a separate interview, the community partner and administrator of this community organization described this same CBPR partnership as one of his worst experiences. His perceptions and statements reflected the differentials in power. The community participant stated the following about the partnership:

> You know, they [academic organization] came in and set the parameters …, whatever is needed to be involved with the project … whatever is stipulated to be done as far as the grant … We do not have a true partnership or relationship with [name of academic medical center]. Instead of having the grassroots people provide their input and then you have the capability in-house to translate into whatever you need to do for the grant. … The part that is missing, is you didn't have the input [of the community], and well no, this is not a good fit for us [community] for this project. You know, I think the participants might would have done a better job saying, you know, these are the players that could really make this move.

Partners conducting CPBR need to assess if there are congruent goals among the partners, if transparent communication systems are in place, mechanisms to resolve conflict and ways in which power is shared to promote equity and mutual ownership. These indicators are needed for the operations of the partnership to maintain progress over time. In descriptions of 'worst CBPR partnerships' among our participants, these operations are often lacking, leading to dissolution of the partnership, and failure to achieve goals and to sustain momentum and positive social change.

Preferred outcomes of CBPR partnership readiness

Our data revealed that adequate readiness (i.e. goodness of fit, capacity, operations) lays the groundwork to achieve preferred outcomes including a sustainable partnership and products, policy change and mutual growth. Participants describing their best experiences demonstrate these readiness dimensions in their stories and how these contribute to the partnerships' successes. Those partnerships who have achieved preferred long-term outcomes, i.e. social and health impact on the community, have a longer history of working together building on successes with multiple projects, demonstrating growth and maturity of their partnership readiness over time, taking corrective actions with lessons learned, and being able to maintain their long-term commitment to the partnership and community.

Discussion

In the last decade, numerous CBPR partnerships have emerged as a result of increased favorable response from funding agencies, increased knowledge

of CBPR approaches and mutual desire of partners to engage with one another to improve the health of our communities. Partnerships among academic investigators and community members in the conduct of CBPR are complex and time consuming. Our participants experienced both positive and negative experiences with CBPR partnerships, with patterns emerging in the data that differentiated the two types of experiences. These patterns have been used to conceptualize readiness dimensions and a new model for CBPR Partnership Readiness.

The readiness of partners with positive experiences involved a good fit between the partners and adequate capacity and operations that are partnership and project specific. These dimensions of readiness reflect the well-established core principles of CBPR.[1–3] Our data revealed that partners who have knowledge of the core principles of CBPR have experience working with partnerships and who are reflective about unique aspects of CBPR (equitable power, cultural humility, mutual ownership) are more likely to seek compatible partners, understand capacity needs and establish operations based on these core principles. We anecdotally observed that participants in our study who had formal training in CBPR (i.e. coursework, seminars, mentored experiences) had a better appreciation for the CBPR principles and were more likely to sustain partnerships over time.

Israel and colleagues [1] identify lack of trust and respect as the most frequently mentioned challenge in partnerships attempting CBPR. Lack of trust of academic partners and their institutions is especially common among ethnically and racially diverse community partners [1, 27–29]. As our data demonstrated, academic researchers and research institutions have traditionally exploited these communities. Commonly, researchers tend to collect data from minority or underserved communities and then have no further contact, other than when the next grant is due or new data are needed. In addition to the 'drive-by' or 'fly-in' research [11], many minority communities experience institutional racism, along with privilege and power challenges in their relationships with academic organizations [2, 30]. Trust may also be hampered by a lack of understanding of the climate and culture of the organization. For example, community groups are often at a disadvantage of understanding the policies, procedures and culture of a research institution [31]. Conversely, academic researchers often do not understand or appreciate the informal and formal decision-making processes in community settings [27]. Our data support and further expand on these findings by having the partners assess if their climates are compatible, including trust and respect, in a determination of the goodness of fit for their partnership. If these or other challenges cannot be overcome, the partnership readiness will be impacted and the partnership may not be a good fit to conduct CBPR. The partnerships who are a 'good fit' have been successful in acknowledging prior historical challenges and then worked to establish or re-establish trust and respect. Partnerships achieve resolution of historical issues through the operations of their partnership, including transparent communication, conflict resolution and balancing the power. Many community-engaged scholars support these CBPR-premised operations as essential in overcoming challenges and in maintaining the ongoing credibility and respect needed for CBPR partnerships [1, 2, 11, 28].

Related to trust and credibility, equitable power is a commonly documented challenge with CBPR partnerships [1, 2, 27–30]. As our data support, many community partners perceive the equitability in power differently than their academic counterparts. Academic institutions and researchers have research methodological expertise, resources to execute grant proposals and institutional review boards, all of which potentially influence the balance of power in the partnership [31, 32]. Adding to these challenges, many disadvantaged community groups have endured historical oppression and suffer from an institutionalized system of power imbalance. As a result, they may self-censor, express their concerns in private and conform to what is presented to them [33]. However, the emancipatory traditions of CBPR, adopted from critical social theory and others [34–38], lend to communities gaining power with the construction of new knowledge. Others contend that there is never a perfect equilibrium of power in CBPR partnerships and

that mutual recognition of equitable power may be challenging [11].

Self-reflection and listening skills are essential for all members in a partnership and may reflect on the ability to share power in the partnership [11]. Cultural humility involves the capacity to reflect on personal and institutional power and to redress power imbalances to develop and maintain mutually respectful and dynamic partnerships with communities [39]. Our study participants validated that cultural humility is a competency needed by CBPR partners as noted in Table I. The absence of cultural humility may have resulted in the disconnect in perceptions of equitable power revealed in our key informant interviews between the academic partner's 'best experience' and the community participant's 'worst experience'. The CBPR Partnership Readiness Model provides several opportunities to assess for the perceived power balance in the partnership. First, within the domain of goodness of fit (shared values, compatible climate, mutually beneficial and commitment) historical imbalances or power or perceived current power differentials may emerge. The readiness domain of operations also provides an assessment power within the partnership infrastructure. This is achieved indirectly within the indicators of congruent goals, transparent communication and conflict resolution. However, because equitable power emerged as an indicator itself, power is directly assessed as a distinct indicator ensuring the infrastructure and processes are in place to support equity among the partners. Others have noted that the careful attention and development of the relationships, infrastructures and processes of CBPR partnerships are needed to redress the power imbalances and promote mutually satisfying partnerships [26, 32, 35].

Cargo and Mercer [40] describe four phases of CBPR partnerships: engagement, formalization, mobilization and maintenance. The engagement phase, or the first phase of partnership formation, highlights the need for 'knowing the setting, culture and people' which is similar to the CBPR Partnership Readiness Model's first dimension of goodness of fit and assessment of shared values and compatible climate. We contend that assessment of the indicators of goodness of fit (i.e. shared values, compatible climate, mutually beneficial and commitment) should not only occur at the initial engagement of the partnership but should also be assessed intermittently as the partnership evolves and different CBPR projects are considered. The partnership may be a good fit at one point in time based on their initial fit, yet may change over time as interests, commitment and agendas evolve and change over time among partners, their organizations and the community.

Cargo and colleagues [40] formalization, mobilization and maintenance stages of partnerships encompass several of the CBPR Readiness Model's other two dimensions, capacity and operations. Processes of Cargo and colleagues stages include hiring staff, identifying partners, developing leaders (capacity) and establishing decision-making agreements, refining mission and defining operational structure and norms (operations). Whereas Cargo's model is linear and specific to the partners themselves, the CBPR Partnership Readiness model is an iterative process with ongoing assessment and evaluation and encompassing an ecological perspective (i.e. partner, organizations, community).

This study has several limitations. Using an exploratory design and methods, we included a purposive sample of academic and community partners to identify dimensions and indicators. The sample was recruited from one region in the United States with a high representation of Whites and African Americans and a limited sample of other ethnic groups. Therefore, the results may not be generalizable to other communities and partnerships.

Implications for research and practice

This exploratory study identified a preliminary model of CBPR Partnership Readiness, including three major dimensions and indicators of readiness. Further validity testing of the model is warranted with other CBPR partnerships. Although the model posits an assumption that varying levels of readiness exist, it does not identify distinct stages or levels of readiness among partners. Further research is needed that may delineate stages of partnership

readiness, as well actions that support or hinder readiness for each stage. The development and testing of tools and instruments to measure the dimensions, indicators and stages of readiness are warranted.

We have developed a 'CBPR Partnership Readiness Toolkit' [41] based on our preliminary model that operationalizes each of the model indicators. The toolkit is formatted to promote dialogue about the partnership's readiness, with guided individual assessment for each indicator, followed by guided partnership discussions, and recommendations for further action plans. Although the academic investigator originally envisioned a quantitative tool that could be psychometrically tested, our community advisory board preferred a more qualitative, instructional tool that would promote discussion and dialogue between partners versus a numerical 'score' from a scale that would have to be summarily interpreted and addressed. We are currently using the newly developed Toolkit in our training for new CBPR partners in our Community Engaged Scholars Program (http://www.musc.edu/nursing/cchp/). Additional research is needed to validate this preliminary, qualitative tool as well as its impact on partnership readiness and partnership outcomes.

Our study findings and others [3, 42, 43] support training and reflection on CBPR principles that are needed prior to engagement of partnerships. Although many institutions and groups are increasingly providing CBPR training to academic and community partners, there is minimal dissemination of best practices or evidence-based training approaches. Further research is warranted to better understand how to conduct training, what content to deliver and how to measure the effectiveness of the training. Research that links partnership training, partnership readiness and partnership outcomes is needed to guide best practices for CBPR partnerships.

Conclusion

This study provides preliminary findings for key dimensions of partnership readiness for academic–community partners to conduct CBPR. Assessment and training tools are needed not only to assess readiness but also to enhance readiness for partners. This will be challenging since readiness is both partnership and project specific and is a dynamic process. These study findings may not be generalizable to all CBPR partnerships and further research is needed to determine levels of readiness as well as evidence-based methods to facilitate readiness among the complexities from ecological, contextual and intrapersonal perspectives.

Funding

The National Institutes of Health (1R03HD059575-02).

Acknowledgements

The authors wish to acknowledge Dr Jane Zapka, Professor at the Medical University of South Carolina, for her contributions to this article.

Conflict of interest statement

None declared.

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