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Community Capacity Building and Sustainability: Outcomes of Community-Based Participatory Research

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Abstract

Background—For communities, the value of community-based participatory research (CBPR) is often manifested in the outcomes of increased capacity and sustainable adoption of evidence-based practices for social change. Educational opportunities that promote discourse between community and academic partners can help to advance CBPR and better define these outcomes.

Objectives—This paper describes a community–academic conference to develop shared definitions of community capacity building and sustainability related to CBPR and to identify obstacles and facilitators to both.

Methods—“Taking It to the Curbside: Engaging Communities to Create Sustainable Change for Health” was planned by five Clinical Translational Science Institutes and four community organizations. After a keynote presentation, breakout groups of community and academic members met to define community capacity building and sustainability, and to identify facilitators and barriers to achieving both. Groups were facilitated by researcher–community partner teams and conversations were recorded and transcribed. Qualitative analysis for thematic content was conducted by a subset of the planning committee.

Results—Important findings included learning that (1) the concepts of capacity and sustainability were considered interconnected; (2) partnership was perceived as both a facilitator and an outcome of CBPR; (3) sustainability was linked to “transfer of knowledge” from one generation to another within a community; and (4) capacity and sustainability were enhanced when goals were shared and health outcomes were achieved.

Conclusions—Community capacity building and sustainability are key outcomes of CBPR for communities. Co-learning opportunities that engage and mutually educate both community members and academics can be useful strategies for identifying meaningful strategies to achieve these outcomes.

Keywords

Community-based participatory research; process issues; education; power sharing

CBPR is increasingly utilized to engage community stakeholders in addressing public health priorities.¹ In its purest form, CBPR is a collaborative process that equitably involves community members in the research process. For communities, the value of CBPR is manifested by increased capacity and sustainable adoption of evidence-based practices for social change.²⁻⁴ However, there is no consensus about the conceptual and operational definitions of these concepts.^{5,6}

Israel and colleagues³ described community capacity building as activities to improve the ability and infrastructure of an organization or community to provide services and programs. McLeroy⁷ defines community capacity as “the characteristics of communities that affect their ability to identify, mobilize, and address social and public health problems,” and Rogers and associates⁸ refer to it as “the cultivation and use of transferable knowledge, skills, systems, and resources that affect community- and individual-level changes consistent with public health-related goals and objectives.” In contrast, sustainability is generally considered the act of continuing and potentially enhancing programs and partnerships over time.^{5,9-11} Sustainability can also occur at multiple levels—the individual, organizational, and/or community level^{12,13}—and involves programmatic “leverage” to influence outcomes.¹⁴

Even more complex is the relationship between capacity building and sustainability. In the health promotion literature, these concepts are often closely linked. For example, community capacity is based on the development of sustainable skills, resources, and structures.¹⁵ The capacity of a program is sustained when its effects are multiplied through the work of a network of organizations.⁶ Capacity building can be seen as both a determinant of sustainability and an outcome of it. Some have even referred to this as “capacity sustainability.”⁵

Despite extensive literature on community capacity building and sustainability, there are few definitions incorporating both community and researcher perspectives. How communities and investigators understand, define, and value the impact of participatory research on these outcomes remains a salient question.¹⁶ Thus, providing opportunities for discourse between community and academic partners to co-define these constructs will advance the conceptual understanding of these terms. Whereas previous conferences have generated dialogue on community health issues (e.g., Agency for Health Research Quality, Community Campus for Partnerships for Health) and defined capacity building, (e.g., Centers for Disease Control),¹⁷ this manuscript describes one of the first opportunities where community partners and academics were intentionally brought together to discuss these concepts.¹⁸

In 2010, The Harvard Clinical Translational Science Award (CTSA) Community Engagement Core with funding from the Association for Prevention Teaching and Research hosted a conference entitled “Taking It to the Curbside: Engaging Communities to Create Sustainable Change for Health.” The initial planning committee was made up of three Massachusetts CTSA (Harvard, Tufts, Boston University) and their community partner organizations [Immigrant Services Provider Group/Health (Somerville, MA), Center for Community Health Education Research and Service, Inc. (Boston), City of Lawrence Mayor’s Health Task Force, and Massachusetts Common Pathways, (Worcester, MA)]. Subsequently, the New York CTSA (Albert Einstein-Montefiore and New York University) were invited to participate in the planning committee. Although the New York community

partners were not asked to join the planning committee owing to time constraints, they were invited to serve as group facilitators. The conference aimed to engage a diverse audience of community and academic stakeholders to jointly identify common definitions of and strategies for facilitating community capacity building and sustainability. This project was exempt by the Cambridge Health Alliance Institutional Review Board.

METHODS

The conference had three educational objectives:

1. Develop concrete and shared definitions of community capacity building and sustainability related to CBPR;
2. Increase understanding of the potential barriers for moving to sustainable community interventions and share potential solutions to overcome barriers; and
3. Share strategies for how researchers and communities can work together to create sustainable changes for health.

Efforts were made to attract equal numbers of academic and community partners (wide distribution and reduced community registration fee). Before the conference, registrants received an anonymous online survey to assess CBPR experience, confidence in creating sustainable health interventions, and expectations. This information was used in planning.

The conference began with Dr. Nina Wallerstein's presentation "CBPR and Sustainable Interventions: Challenges and Strategies for Partnerships." Participants were then assigned to one of nine breakout groups, in morning and afternoon sessions (Table 1). Each group of about 20 had an equal mix of community partners and academic researchers. All groups utilized case studies to stimulate discussion; the morning focused on defining community capacity building and sustainability and the afternoon on identifying facilitators and barriers to both. Harvard Catalyst staff purposely paired unfamiliar researcher/community partner teams from the five CTSA's to facilitate the groups.

Before the conference, all facilitators were asked to participate in a 1-hour conference call and received training on how to conduct the breakout sessions. Facilitators were requested and trained to complete three tasks at the workshop as part of their facilitator responsibilities: (1) To utilize one of three case studies as a conversation stimulant in the breakout sessions, (2) to engage their group in dialogue about the case studies through several follow-up questions, and (3) to note major themes emerging from these conversations that later served as the first level of coding during analysis. In the morning session, follow-up questions included: What were the goals in the case for sustainability? Did capacity building occur? Relevant to your own experiences, what have your goals for sustainability been and what strategies did you use for capacity building? In the afternoon session, the questions revolved around facilitators and barriers to sustainability and capacity building and included: What were the challenges to sustainability in the case? What were the strategies used to overcome them? Relevant to your own experiences, what strategies have you used to promote sustainable change for health? Groups were also asked to prioritize strategies to enhance sustainability and build capacity for report out. Each session was tape recorded and conversations were documented by a student note taker. The facilitator teams worked well together (for the facilitators guide see online appendix at http://muse.jhu.edu/journals/progress_in_community_health_partnerships_research_educaton_and_action/v006/6.3.hacker_supp01.pdf).

Analysis

Shortly after the conference, breakout session notes were shared with the facilitators to ensure completeness and accuracy. Then all members of the workshop planning committee were invited to participate in the analysis. Only six individuals (all academics representing Tufts (1), Harvard (3), New York University (2)) elected to participate in the analysis. Because no community partners chose to participate in analysis, it was decided to share coding results with the entire planning committee for comment at various stages of the process.

At the initial meeting of the analysis committee, members reviewed transcripts and notes documented at the breakout sessions. They then identified key themes related to capacity building and sustainability, facilitators, obstacles, and strategies. These key themes were compiled into a master codebook that was shared with the planning committee for comment. Then the analysis committee divided into dyads for further coding refinement. Each dyad member utilized the codebook to code text from three breakout groups and then dyads reconvened to add new codes, discuss discrepancies, and recode their transcripts together. A face-to-face meeting was held to discuss collapsing codes with duplicate themes into broader categories. When this was completed, all the text was entered into NVIVO¹⁹ and the shared themes were used to recode the text. Finally, the committee reconvened to review the coded text and identify key areas for discussion in this manuscript. Final codes and data were shared with the planning committee, who were also actively involved in writing and reviewing the manuscript drafts.

For manuscript and abstract development, all planning committee members were invited to participate. Co-authorship required review, editing, and, for some, writing sections of the manuscript.

RESULTS

A total of 177 people attended (97 researchers and 80 community partners). In addition, a mixture of 48 researchers and community members participated in the conference as facilitators, speakers, panelists, note-takers, planning committee members, and staff.

Defining Community Capacity Building and Sustainability

During the breakout sessions, participants discussed the linkages between capacity building and sustainability. For example, whereas capacity building was described as preceding sustainability it was also noted that sustainability fostered capacity building. One participant noted that, “capacity building is academics ‘working themselves out of a job’ such that the community eventually takes over the process and the university moves on to other projects.” When these skills are acquired and embedded in the community, sustainability may be achieved. “Sustainability is building capacity and helping the community use their own data to help them continue work after the intervention has finished.” When community partners continue to engage in research beyond one individual project, it is sustainable CBPR.

Capacity-Building Domains

Additional domains relevant to capacity building included committed partnerships and infrastructure building. Partnerships—referred to by one participant as the “human connection”—was described as important for capacity building.

Building capacity must be done both ways because the community will reject certain people or certain research ideas if they are not trusting of them or their aims. Universities need to be taught how to approach communities and work with them in a respectful way.

Maintaining and deepening these partnerships was an important process that built capacity and also led to sustainability. One participant actually noted that “sustainability equals relationships.” The more committed the community and academics were, the more likely that programming or research results would be sustained over time. As one participant explained:

The groups that have real sustainable partnerships that work long-term ... it's the ones that have a clear defined vision of their own and then THEY go out to find funding, find researchers that could help ... and push their own agenda along.

Conference participants also discussed the need to create “infrastructure” (e.g., the mutual creation of guidelines and frameworks for collaboration) and embed these within existing systems. This could help to build capacity and institutionalize change to sustain initiatives. One participant noted:

[They] all came together to write guiding principles and a framework. The network was very important to sustain projects. Even when they don't have funding they still meet and discuss grants and future plans. Having organizing structures really allows you to jump on opportunities.

Both capacity building and sustainability involved the bilateral transfer of knowledge or co-learning, between academics and community partners.

Building sustainability as well as capacity building through giving the community experience and skills for doing their own research and the capacity to start their own projects.

Often we think of the community's learning capacity. Capacity of the institution/research is important as well. Want to make sure research provides for co-learning opportunities.

Some participants said that the goal of CBPR should not necessarily be to sustain particular projects, but to sustain community capacity to respond to emerging needs. As one participant noted:

People are mobilized around certain issues, obesity for example. Resources are scarce. You must be adaptable and strengthen the existing infrastructure. When everything (i.e., the infrastructure) is available, then you can shift with the times and need.

The concept that enduring CBPR partnerships can provide communities with greater capacity to respond to future challenges was mentioned repeatedly.

Sustainability Domains

Additional domains relevant to sustainability included “enduring over time,” “multi-level focus,” and “improved health/concrete outcomes.” With regard to “enduring over time,” participants described the importance of working across generations to achieve sustainability. In this context, they stressed the importance of engaging youth in community health improvement efforts. One participant noted: “They [youth] are the voices of the next generation—we need to have them currently involved so they can continue to implement change in the future.”

Participants also stressed that the concept of sustainability was multi-level. “There are root causes and social determinants of health. In terms of long-term sustainability, you must look at the deeper issues.” In addition, the community's ability to sustain efforts required enduring partnerships and collaborative work to address other issues beyond the initial problem.

Sustainability isn't necessarily an intervention that we need to maintain, it can also be a way of thinking, a coalition, etc.

Finally, participants discussed that sustainable CBPR projects had to achieve concrete outcomes, including improvements in health status, the creation and strengthening of ties between community groups and partnerships with academics.

Facilitators and Obstacles

Participants also noted the major facilitators and obstacles to building capacity and sustainability (Table 2). They included partnership characteristics, availability of resources, shared vision/common goals, and work strategies.

Partnership Characteristics

Participants returned to the importance of strong, enduring partnerships when discussing facilitators and obstacles to strong partnerships, including membership, communication, and available resources. For example, participants felt that partnerships including broad membership from the target population, youth, relevant stakeholders, and community liaisons or “boundary spanners” would be more likely to result in productive partnerships compared to more narrowly defined partnerships. The term “boundary spanners” comes from the organizational behavioral literature^{20,21} and is used in higher education to describe individuals who build bridges between “campus” and community.²² Boundary spanners possess knowledge of both academic and community environments and can serve as coordinators, facilitate information sharing across organizational boundaries, and help to match needs and resources. These individuals are often identified via prior relationships in either the community or academic setting.

Participants also discussed the manner in which communication took place as critical. For example, partnerships characterized by mutual respect were more likely to have lasting impact than those where academics took a top down approach.

Resources

Resources in the form of time, people, money, and infra -structure were described as facilitators or obstacles to sustainability. For example, the large time investment required to undertake CBPR was considered an obstacle, as was lack of funding, specifically to compensate community members. Conversely, participants also discussed how a focus on funding could undermine the involvement of committed and passionate volunteers. Regarding funding, participants also spoke about the need to educate community members to advocate for equitable budgets and compensation for their time and effort. This was a strategy that enhanced community capacity and community power in the partnership. Finally, participants identified staff turnover as a common occurrence in nonprofit agencies and as a barrier to sustainability.

Shared Vision and Common Goals

Conference participants discussed the importance of partners articulating a shared vision, goals, and objectives at the beginning of any initiative. They stressed the importance of continually revisiting goals, with changing needs and priorities. Some suggested focusing on goals encompassing multiple issues to build capacity and future sustainability rather than narrow goals that would end abruptly or spark limited interest in the community. Moreover, participants discussed the importance of measuring progress over time and communicating information on project successes back to the community.

Contextual Factors

A variety of contextual factors were seen as either hindering or helping to sustain initiatives. The political climate was discussed as a potential obstacle. For example, political change at the local, state, and federal levels might mean loss of funding or support for particular projects. Participants also discussed the challenge of “research fatigue” within communities that have been over-researched, often with little benefit to the community. One participant described this obstacle as the “history of disappointment.”

Strategies for Capacity Building and Sustainability

As a final exercise, groups offered numerous strategies to build capacity and promote sustainability. Many revolved around how work was done, the presence of academics in the community, and obtaining needed resources. Although specific strategies to prevent research fatigue were not directly discussed, participants noted that community-responsive research that adhered to CBPR principles could change historical perceptions and potentially diminish research fatigue. In addition, by enhancing community capacity to better assess partnerships, communities can make more informed decisions about participation in research and minimize fatigue. However, workshop discussions did not address the issues that arise when multiple researchers are simultaneously conducting research in one community. Most important, participants discussed how CBPR projects could be integrated into their communities and how evidence produced might influence programming. In addition, the maintenance of academic–community partnerships, which might be revived with emerging problems, was seen as a strategy for building community capacity and sustaining efforts (Table 3).

Evaluation

In the post-conference evaluation, the majority of respondents commented that they were better prepared to engage in CBPR. All respondents said they were somewhat to extremely confident in addressing challenges to creating sustainable health interventions and that the skills/knowledge acquired during the workshop were likely to be applicable in future CBPR work. Congruent with the themes of the day, the conference gave the participants a multilayered definition of capacity building and sustainability that will hopefully help to prepare them for future CBPR efforts.

DISCUSSION

This conference provided a venue for community partners and academic researchers to discuss community capacity and sustainability. By providing opportunities for co-learning rather than didactic presentations, participants shared perspectives on relevant CBPR outcomes.

Conference participants identified themes on both community capacity building and sustainability that resonated with previous dimensions from the literature, including partnerships, skills, and resources.¹⁷ However, several findings emerged which extended the literature. First, we found that participants viewed the concepts of capacity building and sustainability as interconnected and difficult to disentangle. Second, although partnerships were perceived of as facilitators as noted elsewhere,¹⁵ they were also considered an important outcome of CBPR that increased capacity and sustainability potential. Third, sustainability was linked with bidirectional “transfer of knowledge” between academics and community partners, as well as intergenerationally. Finally, both capacity and sustainability were enhanced with shared goals and when measurable health outcomes were achieved that were visible and recognizable to communities.

Relationship Between Community Capacity Building and Sustainability

From this conference, we learned that capacity building and sustainability are inextricably linked, each influencing the other. Although capacity is often described as setting the stage for sustainability, sustainability also enhances capacity, and both hinge on committed partnerships and supportive infrastructure. Our findings suggest that these two domains overlap extensively. For example, Goodman and colleagues¹⁷ noted that competence “signifies how skillfully capacity to is applied” to emerging health issues. Competence is also necessary for sustainability because it is mastery of skills that positions a community for sustainable social change. Consequently, we recommend assessing both capacity and sustainability simultaneously, and identifying factors that might support one and inhibit the other. For example, if a CBPR relationship has resulted in enhanced community capacity to respond to health threats, does this capacity possess the leverage necessary to impact outcomes,¹⁴ and if so, what components of the capacity are or should be sustained? In times of fiscal constraint, community partners that join with academic partners on CBPR projects may be chiefly concerned with their own survival. In this case, sustainability and capacity building may refer to enhancing organizational governance, financial accounting, fundraising, and grant writing. Researchers and community partners should discuss their perspectives at the beginning of a project so that shared goals for capacity and sustainability are clearly communicated.

Partnerships: A Form of Social Capital

Partnership is widely recognized as fundamental to CBPR^{23,24} and is broadly studied²⁵; however, it is less frequently recognized as an important outcome of the CBPR process. Although it requires effort to form and sustain partnerships, partnerships themselves represent a form of “social capital” that can facilitate resource acquisition (e.g., dollars, political power), uncover multidisciplinary approaches to solving complex problems, and enhance capacity to improve health.^{26–28} The relationship between social capital and community health has been well established.^{29–31} A dynamic relationship between communities and researchers is critical to addressing persistent health problems.³² This increased “social capital” can ultimately increase the capacity of communities and academics to better respond to emerging health issues.³³ Strong partnerships enhance social networks, which can support group efficacy and lead to social action.³⁰ As noted by Goodman and associates,^{17,34} there are multiple benefits of partnerships. Thus, regardless of what health issue is addressed, strong partnerships may be a significant indicator of community capacity for health improvement, whose presence or absence could be viewed as an important outcome of community-engaged health research.

Knowledge Transfer and Goals

Knowledge transfer in CBPR is generally conceived of as the transfer of information between researchers and community partners. This conference revealed another type of knowledge transfer, namely, the intergenerational transfer of knowledge. This transfer is important for maintaining enthusiasm and providing momentum for sustainable community change.

Clear and measurable goals, objectives, and outcomes were also important for sustainability, offering participants opportunities for reflection and decision making about which aspects of programs to sustain. They also provide capacity for future fundraising and assist in partnership longevity. The need to identify goals at the onset and to assess how success is defined was considered critical to both capacity building and sustainability.

Strategies to Build Capacity and Promote Sustainability

In this conference, the majority of strategies identified to build capacity and promote sustainability resonated with prior literature including building strong partnerships, equitably sharing resources, encouraging mutual respect and co-learning, skills development, and knowledge transfer (Table 3).^{2-5,7,9,12,14,16,17,35-51} However, several novel strategies emerged, including (1) planning for leadership succession at both the community and academic levels (i.e., involving youth in coalitions as the next generation and engaging junior investigators in CBPR efforts), (2) ensuring that CBPR partnerships are flexible enough to take on emerging problems and can shift from crisis response to wellness promotion, (3) creating a dissemination plan that incorporates the perspectives of diverse stakeholders, as evidence translation must be adapted for different audiences. These additional strategies remind us that sustainable change requires concrete steps toward a future vision.

Limitations

We acknowledge several limitations of this work. First, because the overall focus was to develop a joint understanding of community capacity building and sustainability, we did not instruct groups to identify differences of opinion based on academic or community partner category nor did we ask groups to come to consensus on definitions. Transcriptions were anonymous; consequently, we were unable to identify who provided specific responses. Thus, we may have missed an opportunity to better understand the differing perspectives of academics and community partners. Second, the conference participants were a self-selected group; therefore, findings from the breakout sessions may not be reflective of the views of other types of participants.

Future Directions

Community capacity building and sustainability are key outcomes of CBPR efforts for both academic and community partners. Their successful achievement rests in large part on the strength and endurance of academic/community partnerships. Although not typically considered outcomes, these partnerships are part of the infrastructure necessary to achieve sustainability, capacity and health change. More opportunities that facilitate dialogue between community and academia are needed to develop appropriate metrics to gauge the success of CBPR.

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Table 1

Facilitator Training

Workshop overview
Discussion of breakout session format
Overview of case studies, learning objectives and discussion questions
Ways in which this facilitation may be different from other facilitated sessions
Facilitator pairs and assignments
Preparing for the workshop
What to do during each breakout session
Tips for breakout sessions
After the workshop is over
Questions/discussion

Table 2

Themes for Facilitators and Barriers to Capacity Building and Sustainability

Theme	Quotation
Partnership characteristics	
Facilitators Having youth participate Engaging multiple stakeholders Open and transparent communication Acceptance of CBPR in scientific community Flexibility Creativity Consensus on how to fix tensions Equitable partnerships	“The group felt that it was crucial to share the money, power, and control with the community. This is key to gaining their trust. Until this shift is made, it’ll be almost impossible to make the community a true partner.” “What is important and interesting for me is how you enter a partnership. The transparency principle is key but it’s difficult because the community does not like the word research. But it’s important to be open about this and say that I’m an academic. It’s important [that] the agenda of the researchers are known.”
Barriers Lack of trust Racism/lack of cultural sensitivity Academic approach Lack of a “common language” Predetermined mindset	“The funding can be found but if you don’t have the relationships, you can’t sustain anything. No trust = no buy-in = not sustainable”
Availability of resources	
Facilitators Time Staff/leadership Infrastructure Funders open and interested Skill development Transferability	“For the researcher it is a large investment of time, may be working on a subject area that is not your main interest until community’s priorities align with researchers.”
Barriers Lack of economic resources	“Dealing w/issue of sustainability going from funder to funder. If that funding is no longer there/group is no longer there, how can it continue in the community? There must investment in community to continue these changes”
Shared vision/common goals	
Facilitators Shared goals Broad focus Measurable outcomes	“Need to establish a focused goal from the very beginning that has been thought out, thoroughly discussed, and benefits both parties – will get maximum results this way.” “... I think when you’re doing this kind of work if you really want to be sustainable, you have to have measurements, benchmarks that you set forth at the beginning.”
Barriers Lack of agreement on outcomes Changing priorities Lack of desired results Large mission/scope Competing interests	“How do you justify this money being spent on research? Communities have real issues that money could help solve and yet this money is being given to research-how do you prove the benefit and then share the money so that it benefits the community (immediately).” “Sometimes coalitions form around a problem, but resources and needs change. People must shift their skills and agenda to work with the current needs of the community. Simply “sustaining” a program doesn’t mean it fits the needs of the community, sometimes a change of direction can be sustaining a program.”
Work strategies	
Facilitators Personal outreach/community events Dissemination process that allows input from all stakeholders Feedback loop Importance of active and productive agendas Transition planning/back-up plans	“As researchers, we need to be flexible to community schedules; we cannot always ask communities to cater to us – we have to go to their events at THEIR times, etc” “Socialize sometimes at other occasions besides the work. Go to the soccer game. Those are the common ways people will get familiar with you.”
Contextual factors	
Barriers Community research fatigue Political and social contextual change History	“A barrier to research is the political and social dynamics-how can you identify the specific issues in each community and how do you then work with this to gain trust.”

Table 3

Strategies to Overcome Barriers to Capacity Building and Sustainability

Facilitator/Barrier Themes	Strategies	Examples of Similar Strategies From the Literature
Committed partnerships	Develop partnerships around a clear, specific goal based on a community-identified need that provides a tangible benefit to community	Set goals that everyone can agree to and commit to and that all partners are willing to contribute to that goal. [1] Address the concerns of the community you are working with you. [4] Include meaningful outcomes which are tangible and relevant to communities. [52]
Infrastructure building	Ensure community partners take on leadership roles Build organizing structures and embed processes within existing structures Partnerships should build capacity within institutions to value things that are important for communities. Leadership needs to be developed and needs to guide partnerships beyond the initial issues that bring them together.	Support community members to take effective action on their own behalf to prevent or reduce problems and to promote health.[16, 34, 38, 42] Work with coalitions to build community leadership and strengthen support structures. [36, 52] Focus on organizational change and consultancy to change organizational policies. [45] Integrate innovation into normal operations[48] Provide CBPR training for junior researchers[39] Align goals with the strategic goals of the organization and there must be a sense ownership from a wide variety of partners.[5, 40] Cultivate and nurture leaders who can advocate for program continuation [5, 17]
Partnership characteristics	Create transparent processes around agendas and deliverables Share power, money, and control Engage target population and all relevant stakeholders including youth Foster equal appreciation of both community and academic knowledge/expertise <u>It is crucial that partnerships find ways to shift from crisis modality to wellness.</u>	Follow through on action steps generated through partner meetings [1] Utilize formal governance structures to promote greater equality in group decision-making and foster empowerment [4, 16, 17] Engage communities in respectful exchange of ideas[53] Foster clear and open communication between partners[52] Share resources equitably [1, 4, 53] Engage wide range of community partners in advisory committees who are committed to sustaining efforts.[39, 40, 46] Establish mutual trust and respect in partnerships[2, 25, 41]
Resources	Provide training on budgets for community partners Create “boundary spanner” position to bridge community and academic partners <u>Anticipate staff turnover and transitions and actively plan leadership succession</u>	Identify resources to support innovation[46, 48] Provide skill building[17, 43] Utilize liaison persons to forge organizational relationships [17, 21, 54, 55]
Shared vision common goals	Implement processes to identify priorities and develop consensus Intentionality of sustainability needs to happen in the beginning of a partnership, not the end. Key indicators could be the number of partnerships; the level of community buy-in, and how much data is exchanged. <u>It's important to maintain big goals but stay fluid enough to respond to community needs.</u>	Conduct needs assessment to better understand community priorities[3, 43, 56] Formulate sustainability goals and strategies at the outset[5, 48] Measure capacity based on relevant community outcomes [7, 24, 57]
Work strategies	Actively participate in community partners' coalitions and events Share emerging findings and news with community partners <u>Create dissemination plan which incorporates all stakeholder perspectives</u>	Build trusting durable relationships [1, 35, 48] Transfer a project from a research based to a community base [16]
Contextual factors	Look for “policy windows” Actively discuss with community the positive and negative history of research in their community	Translate findings to policies and procedures [44, 48] Understand the community history[17]

Note. Underlined concepts were not found in the literature.