Cultivating an ecosystem: A qualitative exploration of sustainability in long-standing community-based participatory research (CBPR) partnerships

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ABSTRACT

Background: While sustainability is crucial to the success of community-based participatory research (CBPR) partnerships, there is a lack of conceptual clarity on what defines sustainability and what characterizes sustainability-promoting practices in long-standing (in existence $\geq$ 6 years) CBPR partnerships.

Objectives: The aim of this article is to explore the definition of sustainability, as well as practices that influence sustainability from the perspectives of academic and community experts in long-standing CBPR partnerships.

Methods: This qualitative analysis is part of Measurement Approaches to Partnership Success (MAPS), a participatory mixed methods validity study that examined "success" and its contributing factors in long-standing CBPR partnerships. Thematic analysis of 21 semi-structured interviews was conducted, including 10 academic and 11 community experts of long-standing CBPR partnerships.

Results: The key defining components of sustainability we identified include: distinguishing between sustaining the work of the partnership and ongoing relationships among partners; working towards a common goal over time; and enduring changes that impact the partnership. We further identified strengthening and capacity building practices at multiple levels of the partnership that served to promote the sustainability of the partnership's work and of ongoing relationships among partners.

Conclusions: Sustainability can be understood as supporting an ecosystem that surrounds the beneficial relationships between academic and community partners. Ongoing evaluation and application of practices that promote the sustainability of partnership activities and relationships may strengthen the long-term effectiveness of CBPR partnerships in advancing health equity.

KEYWORDS: Community-Based Participatory Research, Health promotion, Power sharing, Process issues, Sustainability, Evaluation

Introduction

Community-based participatory research (CBPR) has received growing recognition as a valid public health approach to address health and social inequities.[1–3] CBPR strives to equitably engage academic and community partners in all aspects of the research process and embraces knowledge sharing, capacity-building, and mutual decision-making to address issues impacting overall community health and health equity.[4,5] There has been a proliferation of CBPR partnerships in the United States (U.S.) as reflected in increased funding, training, and dissemination efforts devoted to CBPR.[6–8] Supporting the long-term effectiveness of CBPR in attaining health and social equity requires in-depth understanding of what contributes to the ability of CBPR partnerships to achieve long-standing success in partnership goals and outcomes.[4,9]

One critical aspect of successful CBPR partnerships is partnership sustainability (hereafter referred to as sustainability).[10] The literature on CBPR and collaborative partnerships discusses sustainability in terms of maintaining relationships among partners, programmatic activities, and supporting infrastructure over time.[11–19] For example, Israel and colleagues identified three key dimensions of sustainability: (1) sustaining the relationships and commitments among partners; (2) sustaining the collective knowledge, capacity, and values; (3) sustaining the partnership funding, staff, programs, and related policy changes. Partnership-related factors existing at multiple levels (e.g., structural, relational, programmatic, and environmental factors) are thought to variably impact each of these dimensions of sustainability.[11,12,14,20–27] However, there is a lack of conceptual clarity on the defining characteristics and practices of sustainability for partnerships that have lasted beyond an initial funding period. In addition, it is not clear whether the concepts related to sustainability in the

literature were derived from the perspectives of academic or community members and the extent to which they drew upon the experience of those who participated in CBPR partnerships. These gaps motivated our intent to elucidate academic and community perspectives on the definition and practices of sustainability in long-standing CBPR partnerships.

The aim of the article is to explore the definition of sustainability, as well as the practices that influence sustainability from the perspectives of academic and community experts of long-standing CBPR partnerships. We report qualitative findings from Measurement Approaches to Partnership Success (MAPS), a mixed methods validity study that examined success and its contributing factors in long-standing CBPR partnerships.[10] Sustainability was distinguished as a dimension of success in long-standing CBPR partnerships that was explored through interviews with academic and community experts in CBPR to develop quantitative items in the MAPS questionnaire, whose aim is to evaluate dimensions of successful partnerships.[10] Our qualitative exploration of sustainability in this article revealed what academic and community partners perceived to be the definition of sustainability and the practices that promoted sustainability in long-standing partnerships

Methods

Study Overview

As previously noted, the MAPS study developed and validated an instrument to measure success and its contributing factors in long-standing CBPR partnerships.[10] We defined long-standing partnerships as those that are in existence for six years or longer, which reflects their continuation beyond a typical five-year cycle for federally funded research. The study drew upon a conceptual framework, shown in *Figure 1*, that has been refined over the past twenty years to understand the effectiveness of CBPR partnerships.[4,9] According to Israel and colleagues, the

model proposes that partnership structure, group dynamics, programs and interventions, and environmental characteristics influence intermediate partnership outcomes, which in turn produce long-term outcomes (including sustainability) and ultimately may result in long-standing success.[10] The study was conducted through the Detroit Community-Academic Urban Research Center (Detroit URC), which was established in 1995 to foster and support CBPR partnerships to address the social and physical environmental determinants of health in order to reduce and eliminate health inequities in Detroit.[10,28] As a long-standing CBPR partnership, the Detroit URC is led by a Board comprised of representatives from eight community-based organizations, two health and human service agencies, and an academic institution (see Acknowledgements). Following the principles and practices of CBPR, the Detroit URC Board actively engaged and contributed their perspectives throughout the MAPS research process, including the conduct of the study presented here.[2]
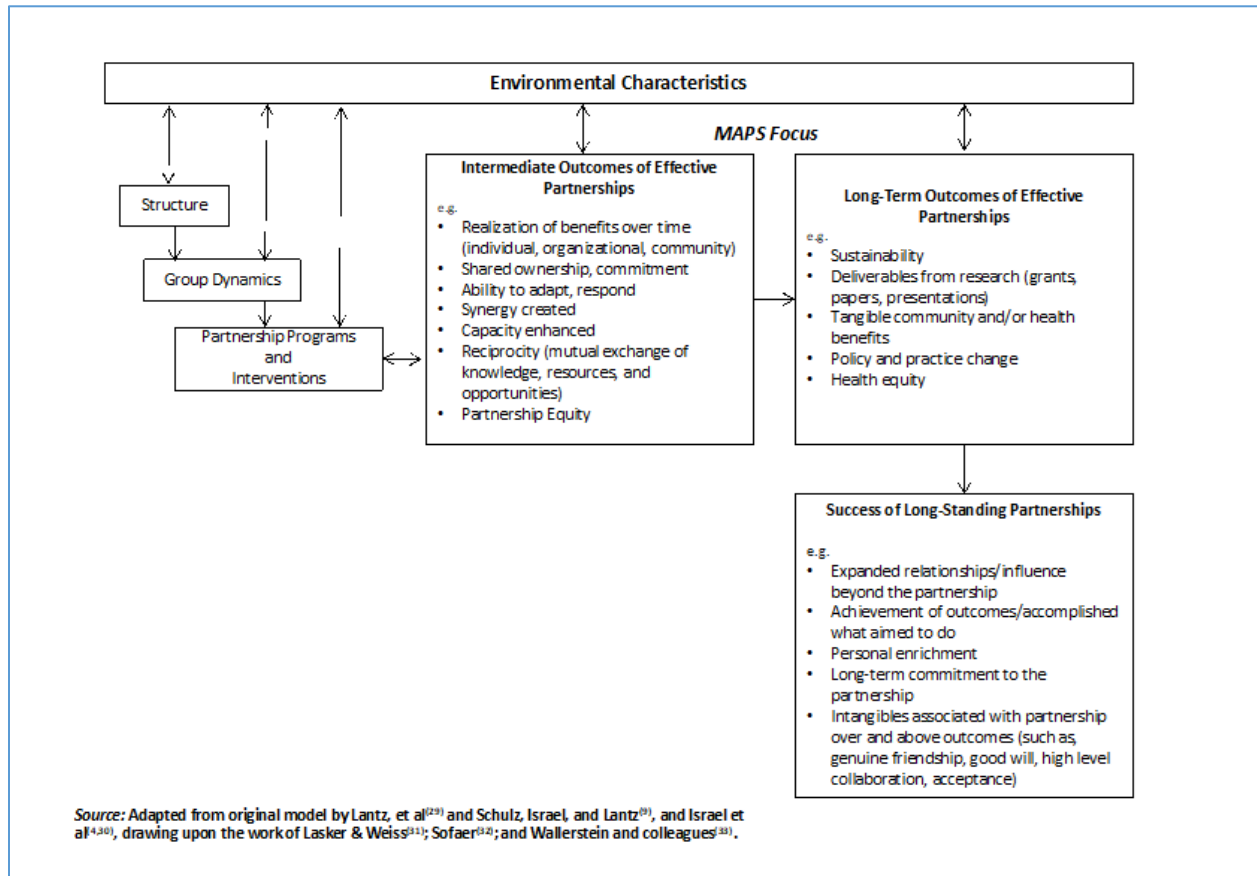
Figure 1. MAPS Conceptual Framework

As detailed by Israel and colleagues,[10] MAPS employed a multi-phase, exploratory sequential mixed methods design in which we conducted multi-method qualitative data collection and analysis to develop and validate a novel quantitative instrument.[29,30] The MAPS team and the Detroit URC Board convened an Expert Panel of eight academic and eight community members to engage in all research activities of MAPS (see Acknowledgements). Reputational sampling was used to invite members of the Expert Panel, based on their experience in and knowledge of long-standing CBPR partnerships, contributions to the literature, and geographic as well as racial and ethnic diversity. The MAPS protocol was determined by the University of Michigan Institutional Review Board to be exempt from ongoing review.

Key Informant Interviews

We conducted in-depth, semi-structured, key informant interviews with 21 respondents. The respondents consisted of 16 members of the MAPS National Expert Panel and five additional CBPR experts who were invited to participate in the pilot interviews to refine the interview protocol. The five respondents included two academic and three community experts in CBPR who were affiliated with the Detroit URC. We created the semi-structured interview protocol using guidance from our conceptual model, literature review, and prior work.[10,11] Open-ended questions were organized by six key areas in relation to effective long-standing partnerships: outcomes, success, cost and benefits, sustainability, synergy, and equity. From January to July 2017, the MAPS core research team conducted the interviews by phone conferencing or in person. The interviews lasted between 60 to 120 minutes. At the beginning of each interview, the interviewer obtained verbal consent, described the study purpose, and identified the six key focus areas. The sustainability section of the interview consisted of an introduction and two open-ended questions: (a) In thinking about long-standing CBPR partnerships generally, what does the word sustainability mean to you? (b) What indicators are critical to determining if sustainability has been created or achieved? The interviews were audio recorded, transcribed, and documented verbatim through field notes taken by a trained staff person. The transcripts were de-identified and classified using a coding system to indicate whether the respondent was an academic or community member.

Thematic Analysis

Members of the MAPS qualitative team, consisting of a postdoctoral researcher (PPC), a graduate student researcher (AG), a project manager (MJ), a research investigator (CC), and a Principal Investigator (BAI), conducted inductive, qualitative, thematic analysis of the interview transcripts.[31] The analysis explored what each respondent perceived to be definitions of

sustainability, and the practices that influenced sustainability within the partnerships. Each

member of the MAPS qualitative team individually examined the first four interview transcripts

in its entirety to capture the interviewee's perspectives related to sustainability throughout the

interview. Upon discussion with and guidance from the MAPS study team, we used a consensus

approach to capture the common definitions and practices associated with sustainability and

applied the revised coding scheme to all 21 interview transcripts. We organized the codes into

themes that provide explanations for the pattern of emergent findings. While we paid attention to

the nuanced differences between academic and community perspectives, given the relatively

small sample size, we did not find substantive differences that we considered justifiable.

Quotations that illustrate each major theme as well as a balance between academic and

community perspectives were selected. The findings were shared with the co-authors who were

academic and community members of the MAPS National Expert Panel for feedback,

refinement, and corroboration.

Results

Respondents consisted of 10 academic members and 11 community members of long-

standing CBPR partnerships (see Acknowledgements). The respondents were based in urban,

rural, and tribal communities across the U.S. Fifteen respondents were persons of color. They

represented a range of disciplines and community sectors, such as social services, healthcare,

environmental justice, and policy advocacy. The analysis identified a range of definitions and

partnership practices that promoted sustainability. Table 1 provides an overview of key themes

and sub-themes that are further described below.

INSERT TABLE 1 HERE

Definition of Sustainability

The respondents' varied definitions of sustainability reflect several components that are instrumental to the success of long-standing CBPR partnerships. Themes include distinguishing between sustaining the work of the partnership and/or sustaining ongoing relationships among partners; working towards a common goal over time regardless of available resources; and enduring changes that impact the partnership. Table 2 identifies key themes and constituent sub-themes and provides applicable illustrative quotations for each theme.

INSERT TABLE 2 HERE

Distinguishing between sustaining the work of the partnership and sustaining ongoing relationships among partners

In defining the concept of sustainability, respondents made key distinctions between sustaining the work of the partnership and sustaining ongoing relationships among partners. Some respondents defined sustainability as maintaining the programmatic activities, capacities, and knowledge generated from the partnership over time. To illustrate, one academic respondent defined sustainability as the continuation of the partnership and its contributions "with or without money at the table" (Example 2.1.1). In contrast, other respondents defined sustainability in terms of ongoing relationships among partners over time; in characterizing sustainable partnerships, one community respondent emphasized the maintenance of strong relationships, open communication, and tangible support among partners (Example 2.1.2).

Working toward partnership goals over time regardless of available resources

The partnership's ability to achieve its goals over time, regardless of the availability of resources, was commonly identified in respondents' definitions of sustainability. Respondents portrayed a sustainable partnership as one that continued to work towards its collective goals, mission, and vision whether resources were available to support the partnership at the time or

not. For example, one community respondent's definition emphasized the commitment of partners towards achieving the mutual goal of the partnership and finding diverse resources to support these efforts (Example 2.2).

Enduring changes that impact the partnership

The respondents' definitions of sustainability typically incorporate the partnership's ability to withstand changes in membership, activities, and resources that could variably affect the viability of the partnership. A sustainable partnership was thought to be capable of responding to these internal and external changes, regardless of who its constituent members were. One community respondent offered the metaphor of a vehicle that "sustains itself, regardless of who's in the driver's seat" (Example 2.3).

Practices that Promote Sustainability within Partnerships

Respondents described a myriad of partnership strengthening and capacity building practices that could promote sustainability. We distinguished these practices by their primary intent of sustaining the partnership's work and sustaining ongoing relationships identified above. Accordingly, we classified the findings into capacity-building and resource-promoting practices that primarily contributed to sustaining the work of the partnership, and interpersonal practices that primarily contributed to sustaining ongoing relationships among partners.

Practices that promote the sustainability of the partnership's work

Respondents described a range of practices that served to enhance the capacities and resources to sustain the work of the partnership, including promoting partnership resources, enhancing the capacity of partners, and advocating for the needs of partners at the institutional level. Table 3 describes and provides examples for these sub-themes.

Promoting partnership resources to sustain the work of the partnership. Several respondents described the need to identify and secure diverse resources to support the activities of the partnership after the end of a funding period. The practice under this sub-theme focused on the acquisition of resources to sustain the partnership's work regardless of whether the existing partnership structure remained in place. In the context of tribal partnerships, an academic respondent considered the investment in resources to support a program by tribal stakeholders to reflect the importance placed on the sustainability of partnership activities (Example 3.1).

Enhancing the capacity of partners to sustain the work of the partnership. Respondents articulated several capacity-building practices that sustained the contributions of partnership activities to the communities being served, often extending beyond the scope of the present partnership arrangements.

Respondents perceived mutual exchange of skills and expertise among partners to be essential to partnership sustainability. Understanding and appreciating the unique assets that members bring to the partnership were foundational to these capacity building efforts. Many respondents identified mutual growth among partners to be a key element of long-standing sustainability and success. One academic respondent employed the metaphor of transplanting seedlings to convey the notion that the skills developed within one partnership could extend and flourish beyond the boundaries of that partnership (Example 3.2.1).

Respondents also perceived that enhancing community partners' funding and other relevant capacities were instrumental to sustaining their partnership contributions. Reported practices under this sub-theme included promoting the capacity of partners to secure funding, enhancing their visibility to stakeholders, and supporting research-related capacities to advance the goals of community partners. One community respondent stated that optimizing indirect rates

for community organizations could elevate their capacity and contributions "to a different level"

and maintain their engagement in the partnership (Example 3.2.2).

Advocating for the needs of partners at the institutional level. Respondents highlighted

that advocating for the partners' needs and interests to institutional, funding, and policy-making

stakeholders were crucial to the sustainability of the partners' contributions. Several respondents

advocated for fostering mutual understanding of and remediating institutional constraints that

academic and community partners faced in engaging in long-standing partnerships. Such

advocacy efforts could include amending academic evaluation criteria to support CBPR

researchers and empowering community members in research decision-making. One community

respondent emphasized the need to promote community participation in funding decision-making

in order to "[help] community partners come into the academic world" and vice versa (Example

3.3). Other respondents perceived that advocating for policy changes at the governmental or

tribal levels could enhance partners' capacities to conduct partnership activities in a sustainable

manner.

INSERT TABLE 3 HERE

Practices that promote the sustainability of ongoing relationships among partners

Respondents described a variety of partnership practices and considerations that focused

on sustaining the relationships that make up the partnership. The key themes in this area include

promoting partnership resources to sustain the relationships, enhancing the partnership structure

and membership, promoting partnership processes and values, and connecting relationships with

other dimensions of partnership success. Table 4 describes the sub-themes in this area and

provides illustrative quotations of these sub-themes.

Promoting partnership resources to sustain ongoing relationships among partners. Several respondents conveyed the need to secure diverse resources to support collaborative relationships among partners after the end of a funding period. Practices under this sub-theme focused on acquiring resources to keep the partnership's organizational structure in place. One academic respondent recalled a time when partners collectively sought to obtain funding from university leaders to sustain a "partnership core" that managed the operations of the partnership (Example 4.1).

Enhancing partnership structure and membership to sustain ongoing relationships among partners. Respondents expressed that enhancing the membership and organizational structure of the partnership throughout its life cycle could contribute to its sustainability.

Some respondents perceived that maintaining the integrity of the partnership structure, leadership, and guiding principles could help promote sustainability. These respondents perceived that long-standing presence of partners were indicative of sustainability. Citing the term "fault tolerance," one community respondent acknowledged that the partnership needed to address transitions in leadership. They perceived that the partnership's present leading partner served as a "stabilizing force" of the partnership and that without them, the partnership's sustainability would have been in jeopardy (Example 4.2.1).

Other respondents found value in expanding or growing the partnership structure and membership over time. One community respondent expressed the dual notion of consistency and change to convey that maintaining some consistency in partnership membership while welcoming "new organizations, people, and ideas" could help sustain the partnership's long-standing success (Example 4.2.2).

Promoting partnership processes and values to sustain ongoing relationships among partners. Respondents explained that fostering participatory values and practices through different sets of relational practices contribute to the attainment of partnership sustainability.

Several respondents perceived that developing meaningful connections among partners were integral to sustaining the success of long-standing partnerships. These relationships often extended beyond the professional realm. One academic respondent attributed the long-standing success of their partnership to personal connections being nourished among partners and compared the partnering experience to "a meeting of friends" (Example 4.3.1).

Developing, following, and monitoring CBPR principles to ensure their adherence over time could provide the foundation for sustaining relationships among partners. Respondents emphasized efforts to establish collective principles to which partners could agree and commit. In fact, one community partner expressed frustration with some academic partners who sought to establish long-term partnerships without adhering to the principles of CBPR (Example 4.3.2).

INSERT TABLE 4 HERE

Discussion

Our study yielded several important insights on the meaning of sustainability as well as the practices that promote sustainability in long-standing CBPR partnerships. Our key informant interviews with academic and community experts who engaged in diverse long-standing partnerships provided insider perspectives on the conceptualization and practices of sustainability. Attention to understanding, fostering, and monitoring sustainability can help to ensure the long-term effectiveness of CBPR partnerships in realizing health and social equity.

Respondents' definitions of sustainability center around distinguishing between sustaining the work of the partnership and sustaining ongoing relationships among partners,

maintaining contributions towards the partnership goals, and enduring changes that could benefit or impede the partnership's viability. Distinguishing between the sustainability of ongoing relationships and the sustainability of the partnership's work concurs with conceptual distinctions made in the literature.[11–13,15,32] The themes of realizing the partnership's goals over time and enduring changes that could impact partnership viability, however, are not specified in the prior literature and suggest that these components may be crucial to conceptualizing sustainability in long-standing partnerships.

Integrating the common themes we identified in the interviews, we propose the following definition of sustainability in long-standing CBPR partnerships: *the maintenance of the partnership's work and/or ongoing relationships among partners in order to achieve collective goals and to respond to challenges and opportunities that impact the long-term viability of the partnership.* We recommend that each partnership discuss and agree upon what sustainability means to them and determine what practices best help partners promote their vision of sustainability throughout different stages of the partnership. In Table 5, we provide illustrative guiding questions that partners may consider in advancing a discussion of sustainability in accordance with each partnership's goals, priorities, and unique identity and context.[11] Questions that partners should reflect upon include: the extent to which the partnership would continue without funding, the extent to which partners would sustain ongoing relationships, the extent to which partners can enhance their capacity to sustain the work of the partnership, and how the partnership would address unanticipated internal and external changes. We recommend that partners consistently revisit these discussions throughout the partnership's life cycle, as part of their ongoing partnership evaluation, in order to synthesize key areas of sustainability to monitor, evaluate, and apply the findings to enhance the partnership's long-standing success.[4,9,11,30]

INSERT TABLE 5 HERE

Identified practices that promoted sustainability encompassed structural, relational, programmatic, environmental, and policy aspects that contribute to the long-term viability of CBPR partnerships. Based on the distinctions made earlier in the definitions of sustainability, we classified the themes in this area into practices that promote the sustainability of partnership's work and those that promote the sustainability of ongoing relationships among partners. We recognize that these two sets of practices are not mutually exclusive and may influence one another. For example, the extent to which partnerships enhance its membership, power-sharing and governance could impact the capacity of partners to sustain the work of the partnership.

We found that supporting and diversifying partnership resources and capacities could promote the sustainability of partnership activities. These findings support the importance of resource and capacity building among partners, to the extent that these practices may be implemented with an eye toward fostering the capacities of partners beyond the scope of the present partnership.[12,33,34] For instance, it may be useful to consider the benefits of CBPR at multiple levels from a community perspective and strive to maximize the benefits of engaging in CBPR to the individual community partner (e.g., genuine friendships made), the community partner organization (e.g., promoting the reputation of the organization), and to the community as a whole (e.g., job opportunities for community members).[35] Advocating for policy and systems changes that accommodate the needs of partners in partnership organizations, funding institutions, and policy arenas may also help sustain the contributions of long-standing CBPR partnerships.[11,18,22,25] As we described elsewhere, long-standing partnerships seek to foster equitable distribution of partnership benefits (e.g., access to resources and expertise) and costs

(e.g., time and effort involved) among partners in order to address inequities in power and resources between research institutions and community-based organizations.[36]

In addition, we found that strengthening the structure and membership of the partnership, adhering to the principles, norms, and values of CBPR, and attending to different dimensions of success could benefit the sustainability of partnership relationships. These findings merit consideration of power-sharing, relationship building, mutual learning, and transparent communication as contributing practices to sustainability above and beyond the commitment to sustaining partnership resources.[12,20,34-39] For example, fostering empathetic communication strategies that take into account differences between academic and community partners as well as multiple evolving perspectives within each of these groups may help sustain trust-building relationships among partners. Engaging in practices to address membership turnover, leadership transitions, and adherence to the principles and values of CBPR from the initial stages of the partnership formation could facilitate the attainment of sustainability.[21]

The emergent findings on the definition and practices of sustainability in long-standing CBPR partnerships can be conceptualized using a metaphor of an ecosystem. Accordingly, sustainability can be understood as fostering a viable ecosystem surrounding the symbiotic academic-community relationships. As noted by Brush, Baiardi, and Lapides,[23] partnership sustainability starts from the formation of relationships among partners with common ideas that blossom into a system of collaboration strengthened by ongoing commitment of partners to the principles, values, norms, and practices of CBPR (e.g., mutual support and power sharing). Drawing upon the MAPS Conceptual Framework (see *Figure 1*), the ecological components that support these relationships include partnership structure (e.g., membership and organization), group dynamics (e.g., engagement in CBPR principles), partnership programs and interventions

(e.g., activities and resources), all of which are influenced by environmental and policy characteristics (e.g., institutional accommodations).[10] Enhancing these ecological components through identified participatory practices that promote the sustainability of the partnership's work and those that promote the sustainability of ongoing relationships will ensure that partners could work symbiotically (e.g., through reciprocity, synergy, and equity) towards their collective goals in the face of dynamic challenges and opportunities.[10,18,21,26] This is critically important during times of enormous disruption and change, such as during the COVID pandemic (e.g., change in stakeholder priorities) and the growing mobilization for racial justice. Sustainability may be achieved when these ecological components reach a state of equilibrium to support the proliferation of symbiotic relationships among partners and the creation of knowledge and action to transform structural inequities and injustices within the ecosystem.

The conceptualization and methodological approach contribute to the strengths of our study. We examined the concept of sustainability within the specific context of long-standing CBPR partnerships. Our inductive, qualitative approach allowed for the conceptualization of sustainability to be grounded in the insights and experiences of community and academic experts from diverse settings and backgrounds, and all within long-standing diverse CBPR partnerships. Academic and community experts in CBPR were equitably engaged throughout all major phases of MAPS. Their feedback and insights based on their in-depth experiences in CBPR partnerships enhanced our qualitative analysis, and four co-authors are members of the Expert Panel.

A limitation of this study is that we examined sustainability from interviews of academic and community experts in long-standing CBPR partnerships that examined sustainability alongside other dimensions of success. Given the primary focus of the in-depth interviews was to inform the questionnaire development, there was little opportunity to probe into nuanced details

of sustainability-related practices nor clarify distinctions between sustainability and other concepts in the interviews. However, we used the qualitative findings to develop the MAPS questionnaire, in which sustainability was included, that would enable us in the future to examine the relationship between sustainability and other dimensions of success in long-standing CBPR partnerships.

Conclusion

Based on the findings in this study and supporting prior conceptualizations in the literature, sustainability emerges as partners strive to maintain the work of the partnership and/or ongoing relationships in order to attain their collective partnership goals and adapt to dynamic challenges and opportunities that impact the partnership's viability.[10,15,17–19,21,26] Engaging in multi-level practices to sustain partnership activities and relationships throughout the partnership life cycle could strengthen the ecological components that support the symbiosis of the partnership over time.[10,17,21] Conscientious efforts to understand, promote, and evaluate partnership sustainability could strengthen the long-term effectiveness of CBPR partnerships in achieving health and social equity.[23,40]

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Table 1. Overview of key themes and sub-themes from MAPS key informant interviews

Domain	Themes and Applicable Sub-Themes

Definition of Sustainability (see Table 2 for quotations illustrating each sub-theme)	2.1 Distinguishing between sustaining the work of the partnership and sustaining ongoing relationships among partners
	
	    2.1.1 Sustaining the work of the partnership
	
	    2.1.2 Sustaining ongoing relationships among partners
	
	2.2 Working toward partnership goals over time regardless of available resources
	
	2.3 Enduring changes that impact the partnership

Practices that promote the sustainability of the partnership's work (see Table 3 for quotations illustrating each sub-theme)	3.1 Promoting partnership resources to sustain the work of the partnership
	
	3.2 Enhancing the capacity of partners to sustain the work of the partnership
	
	    3.2.1 Mutual exchange of skills among partners to sustain their contributions
	
	    3.2.2 Enhancing the community partners' funding or related capacity to sustain their contributions
	
	3.3 Advocating for the needs of partners to advance their work at the institutional level

Practices that promote the sustainability of ongoing relationships among partners (see Table 4 for quotations illustrating each sub-theme)	4.1 Promoting partnership resources to sustain ongoing relationships among partners
	
	4.2 Enhancing partnership structure and membership to sustain ongoing relationships among partners
	
	    4.2.1 Maintaining the integrity of the partnership structure
	
	    4.2.2 Expanding the partnership membership over time

Domain	Themes and Applicable Sub-Themes
	4.3 Promoting partnership processes and values to sustain ongoing relationships among partners 4.3.1 Building relationships beyond professional capacity 4.3.2 Adhering to partnership principles over time

Table 2. Examples of MAPS respondents' definitions of sustainability

Theme	Applicable Sub-theme	Illustration from the Interviews
2.1 Distinguishing between sustaining the work of the partnership and sustaining ongoing relationships among partners	2.1.1 Sustaining the work of the partnership	"Sustainability element is maintaining that partnership with or without money at the table, a project"...[and] what we do or one of our outputs, is it continuing to live? Does it still practice?" (Academic Respondent)
	2.1.2 Sustaining ongoing relationships among partners	"The reason I talk a lot about strong relationships is that even though we don't have as much funding as we do, I still feel like our partnership is strong and that we still connect with each other almost every week about different projects, and even though we may not be both working on it we're keeping the relationship going by keeping our communication lines open and looking for opportunities for one another." (Community Respondent)
2.2 Working toward partnership goals over time regardless of available resources		"The ability to continue to work together towards a common goal over time, and being able to find the resources to do that, irregardless of whether or not it's money or people, whatever, and that commitment to continue towards that work through the ups and downs." (Community Respondent)
2.3 Enduring changes impacting the partnership		"Sustainability is more of a system that sustains itself, regardless of who's in the driver's seat" (Community Respondent)

Table 3. Examples of MAPS respondents' practices that promote the sustainability of the partnership's work

Theme	Applicable Sub-theme	Illustration from the Interviews
3.1 Promoting partnership resources to sustain the work of the partnership		"I guess for me [on] a tribal level is whether the tribes invest in resources after a grant ends because they think it's a sustainable issue or sustainable program, a program that needs to be sustained. So, it's all about sustainability over the long-term" (Academic Respondent).
3.2 Enhancing the capacity of partners to sustain the work of the partnership	3.2.1 Mutual exchange of skills among partners to sustain their contributions	"The relationships that we build within one partnership may actually take off without us, and that may be academic and community partnerships that are sort of seedlings that we plant...It gives community partners and academic partners the opportunity to learn some skills that even if the seedling wasn't planted as part of our partnership, we have the skills to figure out how to plant in another place, you know how to actually sow seeds someplace else and make sure that those flourish" (Academic Respondent).
	3.2.2 Enhancing the community partners' funding or related capacity to sustain their contributions	"That's why I say capacity development is part of it. If we can get programs to a place where they get a reasonable, indirect rate for their projects that can sustain that type of continued professional level of work in their community organizations takes it to a different level, and then that makes that type of partner very interested in wanting to continue partnering with us" (Community Respondent).
3.3 Advocating for the needs of partners at the institutional level		"I think understanding each other and helping academic Partners come into the community's world and helping community Partners come into the academic world in some form or fashion. So, for example, dealing with community-based participatory research and you have sometimes funding organizations, like NIH and some others, who want to fund CBPR projects. So over the course of this whole continuum of things…it'd be a good idea to include community partners at the table when they're making these decisions." (Community Respondent).

Table 4. Examples of MAPS respondents' practices that promote the sustainability of ongoing relationships among partners

Theme	Applicable Sub-theme	Illustration from the Interviews
4.1 Promoting partnership resources to sustain ongoing relationships among partners		"That money was for producing research, and it's not for the core. So we've had to go and find money for the core, and [partner] spends a lot of time on that, and that's the argument that we tried to get to the [dean's committee] and to everybody else, and we're going to the President now trying to say, 'Look. This thing is really significant to the university, and it's been great and we need funding for the core…and without this core, we could probably still have a [center], but it wouldn't be doing all the things that we did, so that we'll need the money to pay the partners to participate" (Academic Respondent).
4.2 Enhancing partnership structure and membership to sustain ongoing relationships among partners	4.2.1 Maintaining the integrity of the partnership structure	"Are you familiar with the term "[fault] tolerance," or redundancy stuff...[W]hat I'm worried about is that if [partner] is not there, then what happens to [partnership]? Because we really haven't talked about transitional leadership...But [partner] was there, so we were able to sort of get through there, and so when I look at these different, major, life points, [partner] has sort of been the stabilizing force there to sort of keep it together" (Community Respondent).
	4.2.2 Expanding the partnership membership over time	"Part of what we are looking to do is have this consistency, yet also at the same time, bringing in new organizations, people and ideas"..."how well you balance the two, 'cause you've got to have some consistency there, but you also have to have new characters, new players coming…in order to really be successful as a partnership" (Community Respondent).
4.3 Promoting partnership processes and values to sustain ongoing relationships among partners	4.3.1 Building relationships beyond professional capacity	"One of the reasons why we've stayed alive so long is because going to the meeting actually is an enjoyable experience...It's like a meeting of friends, and everyone knows that they're involved and/or can be involved, and I think it's also true that people feel that it's an organization or whatever it is, a partnership that's been

Theme	Applicable Sub-theme	Illustration from the Interviews
		successful and that participating in it will continue it to be successful" (Academic Respondent)
	4.3.2 Adhering to partnership principles over time	"CBPR takes you know a minimum of six months, if not two years, to develop a good partnership for a grant, and the academic and the research partners want to do things the same old way, and what they're doing is they're calling things CBPR, but they're not following any of the principles, and it just, it drives me nuts…" (Community Respondent)

Table 5: Guiding questions to facilitate partnership discussions on sustainability

Guiding Questions related to partnership sustainability
To what extent do we consider ways to develop and sustain relationships among the partners including orienting new partners and recognizing departing partners?
To what extent and in what ways would the partnership continue if funding were no longer available?
How, if at all, would members of the partnership continue to work together even if the initial partnership ended?
To what extent, if at all, have partners enhanced their capacity in ways that will enable them to continue to engage in CBPR efforts even if the initial partnership ended?
How do we handle unanticipated changes (e.g., transitions in group membership, loss of funding) that might threaten the work of our partnership?