

Understanding the Benefit–Cost Relationship in Long-Standing Community-Based Participatory Research (CBPR) Partnerships: Findings From the Measurement Approaches to Partnership Success (MAPS) Study

The Journal of Applied Behavioral Science

1–24

© The Author(s) 2020

Article reuse guidelines:

sagepub.com/journals-permissions

DOI: 10.1177/0021886320972193

journals.sagepub.com/home/jabs

Laurie Lachance¹, Chris M. Coombe¹,
Barbara L. Brush¹, Shoou-Yih Daniel Lee¹,
Megan Jensen¹ , Brianna Taffe¹ ,
Prachi Bhardwaj¹, Michael Muhammad¹,
Eliza Wilson-Powers¹, Zachary Rowe²,
Cleopatra H. Caldwell¹, and Barbara A. Israel¹

Abstract

As part of the Measurement Approaches to Partnership Success study, we investigated the relationship between benefits and costs of participation in long-standing community-based participatory research (CBPR) partnerships using social exchange theory as a theoretical framework. Three major findings were identified: (a) the concept of benefits and costs operating as a ratio, where individual benefits must outweigh costs for participation, applies to early stages of CBPR partnership formation; (b) as CBPR partnerships develop, the benefits and costs of participation include each other's needs and the needs of the group as a whole; and (c) there is a shift in the relationship of benefits and costs over time in long-standing CBPR

¹University of Michigan, Ann Arbor, MI, USA

²Friends of Parkside, Detroit, MI, USA

Corresponding Author:

Laurie Lachance, Department of Health Behavior and Health Education, University of Michigan School of Public Health, 1415 Washington Heights, Ann Arbor, MI 48109-2029, USA.

Email: lauriel@umich.edu

partnerships, in which partners no longer think in terms of costs but rather investments that contribute to mutual benefits.

Keywords

commitment, compensation, bonuses and benefits, empowerment/employee involvement/participation, engaged scholarship, groups/group processes/dynamics, qualitative research, social exchanges, satisfaction

Introduction

Over the past 30 years, there has been increasing application of and support for participatory research approaches to better understand and address health inequities (Braveman & Egerter, 2013; Cacari-Stone et al., 2014; Israel et al., 2013b; Hicks et al., 2012; Viswanathan et al., 2004; Wallerstein & Duran, 2010; World Health Organization Commission on Social Determinants of Health, 2008). Community-based participatory research (CBPR), as one such approach, strives for equitable involvement of community and academic partners in all aspects of the research process, emphasizing principles of power sharing, colearning, mutual respect, balancing research and action for the mutual benefit of all partners, and long-term commitment to develop a clearer understanding of public health problems and working collectively to address them (Israel et al., 1998; Israel et al., 2013a; Wallerstein & Duran, 2010). CBPR focuses on all the determinants of health where inequities have their roots and works toward closing the gaps that exist in access to opportunities for health in communities. Critical to this approach is the development of meaningful, diverse partnerships that reflect leadership from the communities most affected (Israel et al., 2013b). There has been a growing literature aimed at conceptualizing and testing dimensions and factors that contribute to the success of such community–academic partnerships (Granner & Sharpe, 2004; Israel, Lantz, et al., 2013; Oetzel et al., 2018).

One dimension deemed critical to sustaining successful CBPR partnerships is the benefit and cost of participation in such collaborations (Brakefield Caldwell et al., 2015; Southerland et al., 2013). As presented below, there is considerable empirical evidence of different components of benefits and costs, their relationship to each other, and their impact on CBPR partnerships. Much of this literature derives from studies of coalitions and collaborative partnerships developed in the early 1990s and focuses on early stages of coalition or partnership development. In this literature, benefits and costs are largely viewed through a ratio lens in which benefits need to outweigh costs in order for partnerships to survive and thrive (Anggraeni et al., 2019; Butterfoss & Kegler, 2009; Chinman et al., 1996; El Ansari & Phillips, 2004; Norton et al., 1993; Prestby et al., 1990; Wandersman & Alderman, 1993).

Theoretical literature, particularly social exchange theory (Blau, 1964; Homans, 1961; Thibaut & Kelley, 1959), provides a framework for understanding and interpreting the role, dynamic relationship, and impact of benefits and costs in CBPR partnerships. While derived from the intersection of economics, psychology, and sociology,

earlier interpretations of social exchange theory focus heavily on economic exchange theory, which suggests that individuals will participate in partnerships and voluntary organizations if they perceive the benefits of doing so are greater than the costs (Blau, 1964; Homans, 1961; Thibaut & Kelley, 1959). More recent interpretations of social exchange theory focus on relationships built within partnerships and the importance of reciprocity from a longer term perspective (Bringle & Hatcher, 2002; Molm, 1994, 2010; Rusbult, 1980, 1983).

Conceptualizing benefits and costs as a ratio follows an economic, utilitarian perspective and limits our ability to explore how individuals and organizations weigh their decisions to participate in a partnership and how the value of partnership may change over time as individual relationships give way to a shared vision. Of particular relevance to CBPR partnerships is understanding benefits and costs within the context of evolving power structure and resource differences among members, with the aim of equitable participation in research. Insights to date have paved the way for the twin-pronged research question guiding this article: What is the relationship between benefits and costs in CBPR partnerships? And, how is this relationship perceived among long-standing CBPR partnerships? As described in the methods section, we investigated these questions using a qualitative approach involving experts in long-standing CBPR partnerships. Thus, the aim of this article is to use a broader, long-term lens to better understand the role of benefits and costs in the success of long-standing CBPR partnerships, drawing on the knowledge of community and academic experts engaged in such partnerships as well as relevant empirical evidence and theoretical perspectives.

Background Literature

Benefits of Participation

Benefits of involvement in CBPR partnerships are described as both tangible (e.g., financial) and intangible (e.g., increased credibility; Brakefield Caldwell et al., 2015; Israel et al., 2006; Israel et al., 1998; Schulz et al., 2003). These benefits are perceived to fall in five different, albeit partially overlapping categories: community, research, partnership, organization, and individual partners (Brakefield Caldwell et al., 2015; Israel et al., 1998; Schulz et al., 2003).

Benefits to the *community* most often include the following: increase in the relevance and usefulness of research, interventions, and policies to address the unique needs and priorities of the community; enhanced credibility with decision makers; improved health outcomes; promotion of training and jobs for community members; and increased capacity of community members to engage in research (Brakefield Caldwell et al., 2015; Israel et al., 1998). Benefits to *research* include the following: enhanced validity, relevance, and overall quality of the research (Israel et al., 1998; Kennedy et al., 2009; Ziegler et al., 2019); increased recruitment and retention in studies; reduced distrust of research among community members (Brakefield Caldwell et al., 2015; Israel et al., 1998; Wallerstein et al., 2018) and enhanced potential to tailor

interventions to the philosophy and practice of those involved (Hopkinson et al., 2005). Benefits to *partnerships* include integration of knowledge and action “with the intention that all involved partners will benefit” (Israel et al., 1998, p. 179).

At the *organization level*, benefits of partnership involvement include the following: access to resources and areas of expertise (Brakefield Caldwell et al., 2015); financial remuneration for partner organizations (Israel et al., 1998); enhanced recognition and credibility of partner organizations (Israel et al., 1998); improved capacity to use research to advance the organization’s work; development of relationships across communities (e.g., African American and Latino); increased knowledge of questions to ask other researchers who are interested in “access to a population;” access to student labor; and increased understanding of how academia works and ability to support faculty (e.g., through coauthoring manuscripts; Brakefield Caldwell et al., 2015). Benefits to *individual partners*, both community and academic, include the following: enhanced skills and professional development; financial and employment opportunities; enhanced credibility of individual partners’ work; building capacity for evidence-based practice; translating research into practice; relationship building and networking; traveling to, and presenting at professional meetings and consultations; serving on national committees; having input in decision making; developing friendships; and developing stronger, mutually beneficial university–community partnerships (Bilodeau et al., 2009; Brakefield Caldwell et al., 2015; El Ansari & Phillips, 2004; Israel et al., 1998; Pivik & Goelman, 2011; Plumb et al., 2008).

Costs of Participation

Costs of participation in CBPR partnerships are often framed in the literature as challenges, both tangible and intangible, and at multiple levels (Brakefield Caldwell et al., 2015; Israel et al., 1998; Schulz et al., 2003). The challenge of overcoming a community’s understandable mistrust toward researchers and the need for academics to understand the historical context and power differences within a community require time and capacity building for both that can be a cost at multiple levels (Brakefield Caldwell et al., 2015; Israel et al., 1998; Kennedy et al., 2009). At the level of *research*, costs of conducting CBPR include the following: balancing available time and goals of the project, balancing commitments to service provision with research project needs, sustainability of efforts, negotiating access to data generated by the research, and addressing questions regarding the scientific quality of the research. Costs to *partnerships* include the amount of time required to participate in the partnership, balancing time available with the goals of the project, and issues of power sharing within the partnership (Gibbs et al., 2008; Williams et al., 2009).

Costs of participation at the *organizational level* include the following: opportunity costs related to time spent between partnership and organizational activities, such as sitting on a committee instead of writing a grant proposal for the organization, attending research meetings instead of dealing with staff issues or being available in the office, or producing peer-reviewed manuscripts versus practice-oriented materials (Brakefield Caldwell et al., 2015; Friedmann et al., 1988; Wandersman et al., 1987).

Additional organizational costs include the following: effort spent on partnership projects not central to organizational goals/activities, sustaining effective interventions without continued funding, low or no indirect costs provided by funders to community-based organizations, putting data from the research into action, training members of organizations to take advantage of research (Brakefield Caldwell et al., 2015; Klandermans, 1984); and competing institutional demands (e.g., pressure on academics to publish rather than spend time in communities; Israel et al., 1998). At the *individual partner* level, there are the time and financial cost of traveling to attend meetings (Friedmann et al., 1988; Israel et al., 1998; Wandersman et al., 1987), financial sacrifices (Klandermans, 1984), job demands and time constraints, processing large volumes of information, working with university researchers and learning their culture, recognizing risks in achieving tenure and promotion, and some universities' skepticism about or interpretation of CBPR as viable research (Brakefield Caldwell et al., 2015; Israel et al., 1998).

Relationship Between Benefits and Costs

The empirical literature on collaborations and coalitions shows that participation in a community-based partnership requires that benefits outweigh the costs (El Ansari & Phillips, 2004; Gibbs et al., 2008; Klandermans, 1984; Norton et al., 1993; Wandersman et al., 1987). Chinman et al. (1996) concluded that minimizing a participant's costs or challenges may be as effective as maximizing the benefits related to participation in a community coalition. El Ansari and Phillips (2004) deemed the ratio of benefits and costs to be more important in determining participant satisfaction, commitment, and ownership than the actual benefits and costs incurred. Butterfoss et al. (1993) found that the higher the perceived benefits and the lower the perceived costs, the more satisfied coalition members were with their committee work, and the more participatory roles members assumed. This is consistent with foundational work in community psychology in which satisfaction, participation, and leadership in community collaborations or settings were associated with a sense of community as a resource for fulfilling participants' needs (Nowell & Boyd, 2010, 2014; Sarason, 1974).

This empirical evidence, based largely on early stages of partnership development, is in keeping with earlier interpretations of social exchange theory, which describe the human tendency to assume costs in order to receive and continue to receive benefits. This tendency serves as a "starting mechanism" of social interaction and group structure, where the benefit–cost ratio is more important in determining satisfaction, commitment, and ownership than the actual levels of benefits and costs. Relationships are maintained if individuals can satisfy their self-interests and, at the same time, ensure that the benefits of participation outweigh the costs. The application of social exchange theory in partnerships has focused on the early stages of partnership development and has viewed the benefit–cost ratio as a static concept. In their systematic review of the literature on partnership benefits and costs, Anggraeni et al. (2019) noted a trend over time to include considerations of distribution of power and equity in partnership

relationships. This shift in the empirical literature parallels the shift in the interpretation of social exchange theory described above and is particularly relevant to CBPR.

CBPR's emphasis on equitable involvement and mutual respect of community and academic partners, principles of power sharing, and integrating knowledge and action for the mutual benefit of all partners—with particular attention to addressing the concerns of communities most impacted—points to the need to examine the relationship between benefits and costs in long-standing CBPR partnerships.

Method

The analysis reported in this article is part of the Measurement Approaches to Partnership Success (MAPS) study, which aims to develop and validate an instrument to measure success in long-standing CBPR partnerships (Israel et al., 2020). In the study, we define long-standing as 6 years or longer. The rationale for selecting this time frame is that it corresponds to a year beyond the maximal 5-year cycle for federal funding, thus being an indicator that a partnership was successful in extending beyond a single funding period. MAPS is being carried out through the Detroit Urban Research Center (URC) described earlier. The Detroit URC is guided by a Board composed of eight community-based organizations, two health and human service organizations, and an academic institution (see Acknowledgements section; Israel et al., 2001).

Using a CBPR approach and guided by a conceptual model, MAPS employs a sequential exploratory mixed-method design and follows a multiphase process that includes a scoping literature review (Brush et al, 2020), in-depth interviews, a three-stage Delphi process, cognitive interviews, pilot testing, and a validation study (see Israel et al., 2020). Community and academic experts on long-standing CBPR partnerships have participated in all aspects of the study and their perspectives are integrated throughout.

Described in detail below, we analyzed qualitative data from 21 in-depth interviews and an in-person Delphi process with 16 key informants to investigate the relationship between benefits and costs of participation in long-standing CBPR partnerships.

Participants and Sampling

Participants were a national panel of eight community and eight academic experts with extensive long-term experience in CBPR ($n = 16$), and five CBPR experts affiliated with the Detroit URC (three community and two academic) who piloted the in-depth interview protocol. Interviewees were selected by the research team and the Detroit URC Board based on their experience, reputation as leaders in the field, contributions to the peer-reviewed literature, and considerations of multiple dimensions of diversity. Three fourths of the panel members are persons of color. The panel represents all regions of the United States and includes tribal nations and rural, suburban, and urban communities. In addition to serving as key informants in the interviews and Delphi process, the expert panel is involved in most phases of the MAPS study.

Data Collection

Twenty-one in-depth interviews were conducted using a semistructured interview protocol developed from the MAPS conceptual model (Israel et al., 2020) and previous work by the research team. The MAPS study protocol was reviewed by the University of Michigan Institutional Review Board (IRB) and determined to be exempt from ongoing IRB review. Questions were open-ended and organized by the six areas of the study focus in the context of effective long-standing CBPR partnerships: outcomes, definitions of partnership success above and beyond outcomes, relationship between benefits and costs, sustainability, synergy, and equity. The interviewer obtained verbal consent and read a description of the MAPS study along with the purpose and focus areas of the interviews. To address perceptions of changes in the relationship between benefits and costs over time in long-standing CBPR partnerships, each interviewee was asked the following questions:

1. Given your experience with long-standing CBPR partnerships, in what ways have you seen costs of participation change over time?
2. Given your experience with long-standing CBPR partnerships, in what ways have you seen benefits of participation change over time?
3. We know that sometimes benefits do not always outweigh the costs and that costs do not always outweigh the benefits. What is it about the relationship between costs and benefits that contributes to success in long-standing CBPR partnerships?

Members of the core research team, all of whom are experienced in qualitative methods and CBPR, conducted the interviews in early 2017. Five pilot interviews were conducted by phone with three Detroit URC community and two academic experts. All 16 members of the Expert Panel were interviewed either by phone conferencing or in person. Interviews ranged in length from 60 to 120 minutes, and were recorded, documented by verbatim field notes, and transcribed. Data were deidentified, retaining an indicator of whether the participant was a community or academic partner, and managed through QSR International's NVivo 11 qualitative data analysis software.

The interviews were supplemented with data collected through a Delphi process that included a 2-day, face-to-face meeting of the 16-person Expert Panel in June of 2018 (see Israel et al, 2020, for more details). Discussion among interviewees and the research team at the meeting was documented through verbatim notes and transcribed.

Data Analysis

Drawing on a grounded theory approach (Strauss & Corbin, 2015), data were analyzed using a process of in vivo line-by-line restatements and open coding (Charmaz, 2014). In vivo codes included participants' terms to preserve their own meaning and guard

against possible bias. Three research team members coded the first eight interviews and worked toward consensus to develop a codebook. Coding was compared with check intercoder reliability and assure analytic rigor. Subsequent interviews were analyzed through focused coding and constant comparisons using the codebook (Charmaz, 2014). The in vivo codes were categorized into themes, resulting in a set of codes, quotes, and themes for the relationship between benefits and costs of participation in CBPR partnerships.

Qualitative data from the in-person Delphi process were also analyzed by members of the research team to further explore, explain, and confirm interview findings regarding the relationship between benefits and costs. The combined findings were discussed among members of the core research team and verified by the authors to examine the central research questions of this article.

Results

Three major findings related to the concept of benefits and costs in long-standing CBPR partnerships were identified from our analyses. First, the concept of benefits and costs operating as a ratio, where individual benefits must outweigh costs for partners to continue their participation, applies typically to the early stages of CBPR partnership formation. Second, as CBPR partnerships develop, the benefits and costs of participation move from an individual worldview to include the needs of other partners and the needs of the group as a whole. Finally, there is a shift over time in the perceived relationship between benefits and costs in long-standing CBPR partnerships that recognizes that an investment in the partnership is worthwhile given mutual benefits over time. These findings, along with their related themes, are depicted in Table 1 and described below.

In the Early Stages of CBPR Partnership Development, the Concept of Benefits and Costs Operates as a Ratio, Where Individual Partner Benefits Must Outweigh Costs for Continued Participation. The first theme related to this finding, which was consistent across interviewees, is that early on in CBPR partnership development, partners must build the capacity to work together. Interviewees described capacity development in terms of skills related to community assessment, leadership, research, interventions, community advocacy, and policy change. Capacity development related to the process of working in partnership was emphasized. Examples included working across diverse opinions, willingness to compromise, and self-reflection related to individual and cultural biases. As one interviewee stated: “whatever our capacities are, they are enhanced because of the other kinds of things that we’ve talked about, like relationships, the willingness to push back, the ability to help someone understand what you’re talking about.” Interviewees described how academic and community partners, coming from their own unique systems and cultures, might perceive benefits and costs differently with regards to capacity building. For example, academic partners may perceive higher costs at the formation stages of partnerships as they learn complicated community systems, whereas community partners may perceive high costs related to training or building capacity of academic partners to work in the community.

Table 1. Key Findings and Themes Related to the Relationship Between Benefits and Costs in Long-Standing CBPR Partnerships.

Key findings	Themes
1. In the early stages of CBPR partnership development, the concept of benefits and costs operates as a ratio, where <i>individual</i> partner benefits must outweigh costs for continued participation.	<ul style="list-style-type: none"> (a). Partners must build capacity to work together. (b). Participation in CBPR partnerships adds activities, time, and work. (c). Benefits and costs differ between academic and community partners.
2. As CBPR partnerships develop, the focus on costs moves to a focus on benefits that allows a transition from individual needs to the needs of <i>the group</i> as a whole.	<ul style="list-style-type: none"> (a). Partners recognize each other’s needs and share power and resources. (b). Partners create and operate with a shared vision and goals for the group. (c). Time on the front-end to build capacity and trust creates benefits to the partnership that act to reduce costs of participation over time
3. There is a shift in the relationship of benefits and costs over time in long-standing CBPR partnerships, in which partners no longer think in terms of costs but rather investments that contribute to mutual benefits.	<ul style="list-style-type: none"> (a). Benefits and costs of participation in CBPR partnerships are dynamic and fluctuate over time. (b). Partners invest in each other, creating interdependence and mutuality. (c). Partners invest in the partnership and commit to each other in ways that go beyond the work of the partnership, reflecting a long-term reciprocity.

The partnership should provide needed capacity for the community (partners) and, if not, it probably won’t work. (Community Partner)

So the costs for the community partners were quite significant, because they had to . . . help me to understand their realities . . . (Academic Partner)

A second major theme is that participation in CBPR partnerships adds activities, time, and work. It takes more time for both community and academic partners to participate in CBPR partnerships compared with other modes of working (e.g., implementing programs, decision makers acting on their own). This is especially true in early stages of CBPR partnerships, when partners are often confronted with environments and cultures where they may lack experience, and there is a need to develop relationships with new partners.

The costs at the beginning . . . probably weighed heavier, and in part that was because I had to travel more to develop the relationship at the beginning of the relationship. So I

was traveling regularly, sometimes once a week, to build those relationships, and that was really a cost on my body, [a cost in terms of] gas, family time, sleep, all of those things, exercise, lots of different costs for that amount of travel, and there were costs in terms of the amount of time I could put into my teaching then because there's only 24 hours in a day. (Academic Partner)

Early in the partnership, the time and energy required to build relationships is described as a high cost that may outweigh benefits, particularly when those efforts do not work out. This was expressed by both academic and community interviewees.

There were costs in terms of putting all of your eggs in one basket. . . . Building relationships takes a lot of time and it's very difficult to do that in multiple places at once. The kinds of engagement that you need at the beginning of a partnership are much more intensive and face-to-face and time-consuming, and building relationships, really getting to know someone and getting to know the community, getting to know all those things. (Academic Partner)

We have attempted to go to other universities and develop new partnerships, and that hasn't really worked for us. We've spent a lot of time in six, seven, eight meetings developing proposals that went nowhere. So doing some things that we really like to do, but we're not eligible to apply for, and trying to get researchers to work with us to apply, hasn't always worked. (Community Partner)

Although costs were identified as higher earlier in the partnership for both partners, the third major theme specifies that benefits and costs differ between academic and community partners, often reflecting structural power and resource inequities. For community partners, organizational costs are not always considered (e.g., administrative, facilities, overtime) even if partner salaries are funded, or may be funded at a lower rate than for academic institutions. This is especially challenging for nonprofits that are reliant on grants, compared with those who operate with budgets that have solid funding. For many community organizations the cost of participation (e.g., attending meetings) is detrimental. Investments that do not pay off through resources strain community partners who rely on external resources.

You may give us some indirect . . . 10 or 15%. Sometimes there's no indirect. So the cost of processing those people's paychecks and all the other costs that are associated with that, lights and all that stuff, and none of that's recouped. So community-based organizations eat all that cost. (Community Partner)

This finding of benefits versus costs in the early stages of CBPR partnership development operates primarily at the level of the individual. If at earlier stages of partnership development, the perceived benefits do not outweigh the costs, individual partners may not think it is worthwhile to continue to participate.

As CBPR Partnerships Develop, the Focus on Costs Moves to a Focus on Benefits That Allows a Transition From Individual Needs to the Needs of the Group as a Whole. As discussed by community and academic experts, as CBPR partnerships develop and take on a

group identity, they recognize each other's needs, reward systems, and organizational and/or institutional requirements. They strive to share power and resources. The actions of community and academic partners can be described in terms of meeting each other's needs.

You need to be able to say with sincerity, "Here's what my needs are in coming into this partnership. I need to publish because if I don't publish, I'm not gonna get promoted," or in some cases, "keep my job." (Academic Partner)

Partners grow to understand that meeting the needs for some of the partners (e.g., order of authorship on journal articles, inclusion as a line item in a budget) may be different based on reward systems in their work, and their position in the institution (e.g., junior or tenured faculty, project staff or director). Community partners invest in student and junior faculty success, which benefits both academic and community partners.

Because of the relationship [I] had with communities, they were invested in me as they wanted me to continue to get promoted and to be the person in academia that they felt that they could call on. (Academic Partner)

Interviewees noted that partners differ in the resources they have available to absorb costs of participation.

Some organizations can afford to be at the table. Others don't have that luxury, so the cost for that particular organization could be detrimental, because if they're not in the office for a whole day doing what they need to do to keep their organization afloat, then they're falling farther behind while trying to partner with a group that could possibly help them move forward. (Community Partner)

Interviewees also noted that as partnerships develop, partners become concerned about not only the needs of fellow partners but also finding ways to support each other. It often takes time and the building of relationships for partners to understand ways to support each other.

The community's time is valuable and needs to be compensated. . . . I see it now even written in grants that Academics just know to do it. It's not acceptable that you [not compensate community]. (Community Partner)

A second theme related to the second key finding is that partners create and operate with a shared vision and goals for the group. As partners work together, they move from an emphasis on individual goals toward development of mutual goals and vision, and this has an impact on the way they perceive benefits and costs of participation.

Having the benefits of knowing that this is . . . a long-term commitment and that people are going to keep trying, . . . to be looking for opportunities to support the goals . . . that

can probably help weather the times [when costs] outweigh the positive. (Academic Partner)

A third theme was that time on the front end to build capacity and trust creates benefits to the partnership that act to reduce costs of participation over time. As CBPR partnerships invest in capacity building, create understanding and trust, and commit to creating an equitable partnership, costs of participation can decrease due to these increased benefits.

I think they [community partners] feel like they've trained me and built my capacity as much, if not more, than I had given them anything. They've helped me to better understand their world, and the differences, and I think that as I've come to know them within the partnership, they don't have to work as hard with me either. They can cut to the chase. So those costs initially to them I think were much greater than they are now. (Academic Partner)

As illustrated, this finding emphasizes a shift that occurs over time from an individual to group perspective with development of CBPR partnerships. Once partners form a vision for their work together and agree on mutual goals, their perceptions of benefits and costs expand to include the group itself. This process takes time as described by one community interviewee:

. . . the partnership, took the time to do the foundational work, the trust-building, the understanding of what it is that we would want to accomplish, and helping us to understand what they need to accomplish. I mean we spent one year not even talking about any type of research project, but just building the trust. So what kept me at the table was that they were willing to take on the task of building the trust before they entered into any type of project, and they really wanted to build a sense of an equal and equitable partnership, meaning that everybody was on the same page. No one person or organization was running the ship. We were doing this together, and they you know provided every opportunity to make that clear and as simple as possible. So keeping me at the table was going through that process.

There Is a Shift in the Relationship of Benefits and Costs Over Time in Long-Standing CBPR Partnerships, in Which Partners no Longer Think in Terms of Costs but Rather Investments That Contribute to Mutual Benefits. The third major finding identified from the interviews is that over time, a shift occurs in the relationship between benefits and costs in long-standing CBPR partnerships that have successfully navigated challenges and realized the benefits of working together, in which partners no longer think in terms of costs but rather investments in the partnership that will be mutually beneficial. The first theme related to this finding is that, as partners invest in long-standing CBPR partnerships, they come to realize that benefits and costs fluctuate over time. Costs can be higher over time as partners get pulled into other partnership-related activities and participate more. Increased costs are viewed as a necessary part of the work, and not something that needs to be minimized or contained.

[The benefit/cost ratio] is going to change over time . . . because of positive aspects of friendships or collaborations, the ratio is never going to zero benefits over costs. (Academic Partner)

. . . either your costs are going down and your benefits are going up, or your benefits are going down and your costs are going up . . . I don't think they are ever gonna be like even. (Community Partner)

Furthermore, the balance shifts as partners realize the resources and benefits of being in the partnership.

I didn't know enough for the first couple of years, about the partnership, about the university . . . I started to realize that . . . the university has all kinds of resources . . . that I could tap into through this partnership. . . . It took years to realize that there are other benefits, other than financial . . . to this partnership . . . intangibles like [the reputation of the partnership]. (Community Partner)

A second theme contributing to this finding is that as CBPR partnership relationships develop, partners invest in each other, and operate with the belief that their fellow partners will be there for them when needed. Interdependency and mutuality are present in the way partners interact.

So until [we] know each other and trust that each other are gonna come through and produce, that's when costs begin to shift and it moves . . . beyond just the functional getting the job done, but realizing there's a bigger synergy that's possible with the participation, even if it's more "me." So as you trust that it's gonna benefit you, "me" loses a little bit of significance and it moves into, you know, the greater good. (Academic Partner)

This investment in the partnership is associated with the concept of reciprocity occurring over time as a benefit of long-standing CBPR partnerships. Partners come to depend on one another and realize that their investment in partner relationships will create a shared knowledge that fellow partners will also come through for them when needed.

The way in which I trust the community partners that I work with to do the work, to have my back, to work effectively together, it just grows over time, whereas I feel like the costs are just the costs. It takes the same amount of time to drive [to the meeting] now as it did 15 years ago, and those are investments. I don't even think they're costs. They're investments in the work and they're investments in the relationships; and the benefits of those investments just keep increasing the longer that I work with the folks I work with. (Academic Partner)

Whenever I see grants, thinking of partners that I've worked with and sent the grants announcements to them, even if it's not something that I would want to be involved in

and has nothing to do with my expertise. I no longer can see something without them being in my thoughts, and that's a lovely thing. (Academic Partner)

. . . you also have to be able to see down the road what success might look like. . . . So having that understanding that the change takes time. (Community Partner)

A final theme related to this finding is that partners invest in the partnership and take on costs because they value the relationships that exist with their fellow partners. Their commitment goes beyond the work of the partnership, reflecting a long-term reciprocity.

Okay, or the fact that these individuals have moved from . . . the relationship being basically focused on the partnership to a very personal relationship and collaboration. You know there's like a friendship. That's an intangible, right? . . . So the success of the partnership may be, like I said, more intangible for me. (Community Partner)

When you're involved with something, you're making an investment of time, because you know or you hope that there's gonna be some reward at the end and so investment is sort of different from [cost] . . . an investment is one of those strategic decisions that you make because you think it's going to pay some dividends down the road. (Community Partner)

Furthermore, this sense of commitment between partners is critical to the shift in perception of benefits and costs of participation.

. . . that level of recognizing that you can count on people and you can still make mistakes, but you can count on them; that's when the shift happens. (Academic Partner)

The development of CBPR partnerships over time creates the opportunity for partners to shift from their own individual and organizational perspectives and take on the vision and goals of the partnership. They recognize each other's needs, begin to share power and resources, and build capacity and trust. In long-standing CBPR partnerships, the benefits and costs of participation fluctuate over time. Partners operate with the understanding that things may or may not be exchanged and commit to the work of the partnership and to their relationships in ways that go beyond the work of the partnership.

There's a different kind of reciprocity, as one might say, in terms of it's sort of like any long-term relationship. The reciprocity isn't exact dollar-for-dollar or cup of coffee for cup of coffee, but begins to reflect more of a long-term kind of reciprocity where you get something and maybe other things are exchanged, and maybe not. There's a different kind of exchange of things in a long-term CBPR [partnership]. (Academic Partner)

. . . So we work together. We're looking out for each other. We really like each other. We have lunch and dinner and breakfast. Those are all kinds of intangible things. (Community Partner)

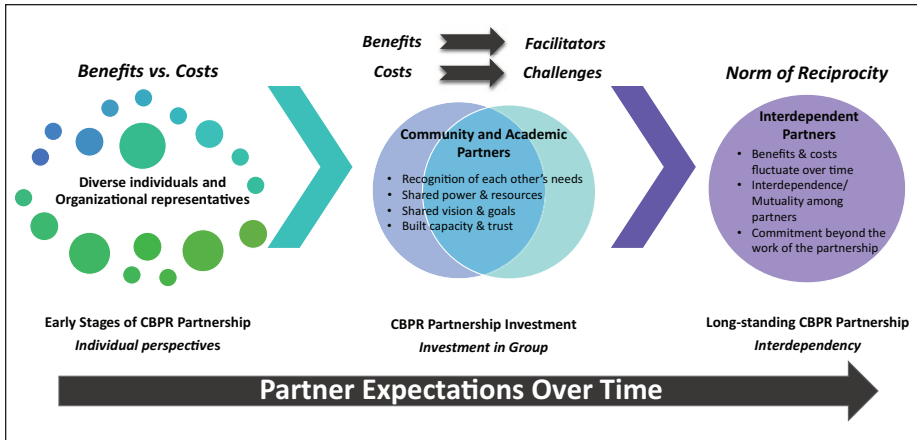


Figure 1. Cultivating a norm of reciprocity in long-standing CBPR partnerships.
 Note. CBPR = community-based participatory research.

Discussion

The findings from this study show that the relationship between benefits and costs of participation in CBPR partnerships shifts as partners experience mutual benefits over time and recognize the investment in the partnership is worthwhile. Investment in CBPR partnerships occurs as partners go beyond weighing benefits and costs at any given moment as a way to gauge their commitment, view the needs of the group, and consider benefits across multiple levels—to the partners, partnership, community, and broader research endeavor. These findings are discussed further here, integrating relevant empirical evidence and theoretical frameworks.

As shown in Figure 1 and described in the background section of this article, early stages of CBPR partnerships bring together diverse individuals and organizational representatives. It often takes time for partners at these early stages to form relationships and agree on a common vision for their work. At these early stages of partnership development, it is important that the perceived benefits outweigh the costs in order for partners to continue their involvement. In addition, the partnership must create opportunities that extend to the needs of individual partners and organizations.

As noted earlier, social exchange theory suggests that relationship development in partnerships initially operates with the expectation that benefits outweigh the costs (Blau, 1964; Kelley & Thibaut, 1978; Rusbult, 1980, 1983) for relationships to be initiated and maintained in early stages of CBPR partnerships. These initial expectations are related to perceptions of satisfaction (Buhrmester et al., 1988; Homans, 1961). Social exchange theory proposes that the relationships we choose to create and maintain are those that maximize our rewards and minimize our costs (Blau, 1964; Homans, 1961; Thibaut & Kelley, 1959). The relationships that give us the most amount of benefit for the least amount of effort are the ones individuals are most likely

to invest in, with the expectation that equal exchange of benefits is desirable and perceived inequality puts relationships in jeopardy.

As CBPR partnerships evolve and establish a group identity and partners become more aware of the needs and goals of fellow partners and the partnership as a whole, they think of benefits more in terms of investments and facilitating factors for their work together, and costs more in terms of challenges to that work. They recognize and address institutional differences in power and resources, which fosters trust. They become aware of the differences in how benefits and costs are perceived by collaborating partners due to different cultures, organizational structures, goals, and measures of success (Brett et al., 2002; Bringle et al., 1999; Israel et al., 2013b; Ross et al., 2010; Trotter et al., 2015).

As depicted in Figure 1, this conceptualization of benefits and costs as challenges and facilitating factors reflect the movement past early stages of CBPR partnerships toward building relationships of trust and mutual respect and a shift from an individual to a group perspective. In this phase, there is a willingness to invest in the partnership, which includes attention to building equitable relationships, sharing power and resources, ensuring that mutual goals and vision exist, and building trust, solidarity, and collective efficacy.

Early conceptualizations of social exchange theory relate to empirical findings in the early stages of partnership development; a benefit–cost analysis is used at the beginning of a partnership to help members decide if they want to start a relationship. However, as the relationship develops, the partnership itself becomes important (Kelly, 1979). Later interpretations of social exchange theory postulate that expectations and satisfaction are based on the perception of attributes and relational outcomes such as levels of friendship and equity experienced (Sabatelli, 1988). Furthermore, mutuality and a norm of reciprocity exist when partners invest in the partnership (Gearhart, 2019; Molm, 2010). The strengths of the partnership are leveraged to create and sustain collective actions.

Building on and extending earlier frameworks related to social exchange theory, the *norm of reciprocity* has been described by Gouldner (1960), and Molm (2010), where the significance of shared values as a source of stability in social systems and partnerships is stressed. A critical element of the norm of reciprocity includes engendering motives for returning benefits without expectation of payment. The norm of reciprocity is seen as a mechanism for the maintenance of a partnership. Antonucci et al. (1985, 1990) introduces the concept of “banking” as a mechanism that operates within the norm of reciprocity, whereby individuals can derive positive benefit from providing support to others because of the satisfaction of providing such support and because of the confidence that support from others can be expected, if needed, at some future time.

In keeping with the interview findings presented here and the theoretical literature, participation in long-standing CBPR partnerships provides the opportunity to develop a norm of reciprocity within the partnership as a whole. The shift in partnership expectations over time that is created through the building of interpersonal and institutional relationships, and the investment in and commitment to equitable relationships, allows

partners to “be there for each other” and move away from transactional forms of trust toward a sense of faith and confidence in fellow partners as a reciprocal, interdependent partnership, as depicted in the “norm of reciprocity” circle in Figure 1. This commitment to working through difficulties, developing trusting, equitable relationships is critical to the focus of CBPR on addressing social determinants of health in communities that experience health inequities.

This investment over time in relationships changes the nature of benefits and costs. Partners move from the need for immediate exchange to a knowledge that they “have each other’s back” and trust that the exchange of benefits can be counted on if ever needed. There is a sense of interdependence and mutuality. The individual benefits and costs of participating in the partnership no longer solely determine commitment to the partnership and there is a commitment within relationships that goes beyond the work of the partnership. Although the length of time a partnership is together does not in and of itself create a norm of reciprocity, it does provide the opportunity to develop trusting, equitable relationships that will foster the achievement of such a norm.

In CBPR, reciprocity reflects the commitment that research be mutually beneficial for both community and researcher partners. Christopher et al. (2013) emphasize that reciprocity is conceptualized differently from Indigenous perspectives compared with non-Native viewpoints. Reciprocity through an Indigenous lens is not the expectation of repaying favors or owing something, but rather “a concept of respectfully acknowledging the gifts that others offer and giving gifts in honor of and with appreciation for others” (Christopher et al., 2013, pp. 232-233). They note that the core value of reciprocity is integrated by honoring responsibilities to the community throughout the research process (Christopher et al., 2013). This perspective is in keeping with the third major finding and subthemes discussed above.

Several other theoretical frameworks align with and inform the findings of this study, including *sense of community responsibility* (Nowell & Boyd, 2010, 2014; Sarason, 1974). From the discipline of community psychology, the theory of sense of community emphasizes the community as a resource for meeting members’ individual needs, a mutually supportive network that members can rely on (Sarason, 1974). Two distinct aspects of sense of community have been theorized and tested (Nowell & Boyd, 2010, 2014). One aspect, sense of community responsibility, is a value-based perspective defined as “a feeling of personal responsibility for the individual and collective well-being of a community of people not directly rooted in an expectation of personal gain” (Nowell & Boyd, 2014, p. 231). This sense of responsibility for the betterment and well-being of other members and the partnership is consistent with the findings of this study related to perceived benefits and costs over time in long-standing partnerships. The dynamic nature of group processes that respond to the needs of the partnership through deep inquiry and responsiveness to changes needed at a systemic level corresponds to complexity theories and complex adaptive systems, which provide mechanisms that describe how partnerships devise ways to continuously adjust to discontinuities (Mirvis, 2014), and emphasize the importance of scholarship that engages both researchers and practitioners to foster the creation of the kind of knowledge that solves practical problems in communities (Van de Ven & Johnson, 2006).

Guided by CBPR principles, long-standing partnerships strive toward more equitable distribution of benefits and costs to address structural power and resource differentials between academic/research institutions and community-based organizations that often represent communities of color (Davis et al., 2017; Israel et al., 2018; Muhammad et al., 2018; Suarez-Balcazar, 2020). As these findings suggest, the concept of benefits as mutual and reciprocal are understood in long-standing CBPR partnerships as extending beyond the individual and partner relationships to multiple levels—contributing to the broader research and its application to improving community well-being and health equity.

Conclusion

In accordance with the results of this study and several theoretical perspectives, over time, as CBPR partners commit to their partnership, the relationship between benefits and costs of participation shifts away from individual needs for benefits to outweigh costs. As relationships develop within the partnership, fellow partners commit to their work together as a group, based on shared visions and goals. Partners invest in each other and learn about the needs and contexts in which their fellow partners operate with the intention of equitably incorporating these needs into the way they work together. Long-standing CBPR partnerships further recognize that benefits and costs differ due to structural inequities in power and resources between academics and communities, and strive toward equity. Understanding the shift in meaning of benefits and costs over time may help new and early developing CBPR partnerships as they navigate the stages of relationship and capacity building and help them reach long-standing success. Ultimately, as partners work interdependently, they create a norm of reciprocity and commit not only to the partnership, but to investing in work beyond the partnership including improvement of community well-being and reducing health inequities.

Authors' Note

The Measurement Approaches to Partnership Success (MAPS) project is a project of the Detroit Community Academic Urban Research Center (Detroit URC)—eight community-based organizations (Community Health and Social Services Center, Inc., Detroit Hispanic Development Corporation, Detroiters Working for Environmental Justice, Eastside Community Network, Friends of Parkside, Institute for Population Health, Latino Family Services, Neighborhood Service Organization), two health and human service agencies (Detroit Health Department and Henry Ford Health System), and three schools at the University of Michigan (Public Health, Nursing, and Social Work).

Acknowledgments

The research team wishes to gratefully acknowledge the MAPS Expert Panel for their contributions to the conceptualization and implementation of this project: Alex Allen, Elizabeth Baker, Linda Burhansstipanov, Cleopatra Caldwell, Bonnie Duran, Eugenia Eng, Ella Greene-Moton, Marita Jones, Meredith Minkler, Angela Reyes, Al Richmond, Zachary Rowe, Amy Schulz, Peggy Shepard, Melissa Valerio, and Nina Wallerstein.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research and/or authorship of this article: This publication was made possible by the National Institutes of Health (NIH), National Institute of Nursing Research (NINR) award R01NR016123

ORCID iDs

Megan Jensen  <https://orcid.org/0000-0001-8243-1944>

Brianna Taffe  <https://orcid.org/0000-0003-3069-3840>

References

- Anggraeni, M., Gupta, J., & Verrest, H. J. L. M. (2019). Cost and value of stakeholders participation: A systematic literature review. *Environmental Science & Policy, 101*(November), 364-373. <https://doi.org/10.1016/j.envsci.2019.07.012>
- Antonucci, T. C. (1985). Personal characteristics, social support, and social behavior. In R. H. Binstock & E. Shanas (Eds.), *Handbook of aging and the social sciences* (2nd ed., pp. 94-128). Van Nostrand Reinhold.
- Antonucci, T. C., Fuhrer, R., & Jackson, J. S. (1990). Social support and reciprocity: A cross-ethnic and cross-national perspective. *Journal of Social and Personal Relationships, 7*(4), 519-530. <https://doi.org/10.1177/0265407590074008>
- Bilodeau, R., Gilmore, J., Jomes, L., Palmisano, G., Banks, T., Tinney, B., & Lucas, G. I. (2009). Putting the “community” into community-based participatory research: A commentary. *American Journal of Preventive Medicine, 37*(6), S192-S194. <https://doi.org/10.1016/j.ampre.2009.08.019>
- Blau, P. M. (1964). *Exchange and power in social life*. Wiley.
- Brakefield Caldwell, W., Reyes, A. G., Rowe, Z., Weinert, J., & Israel, B. A. (2015). Community partner perspectives on benefits, challenges, facilitating factors, and lessons learned from community-based participatory research partnerships in Detroit. *Progress in Community Health Partnerships: Research, Education, and Action, 9*(2), 299-311. <https://doi.org/10.1353/cpr.2015.0031>
- Braveman, P., & Egerter, S. (2013). *Overcoming obstacles to health in 2013 and beyond*. <https://www.rwjf.org/content/dam/farm/reports/reports/2013/rwjf406474>
- Brett, J. A., Heimendinger, J., Boender, C., Morin, C., & Marshall, J. A. (2002). Using ethnography to improve intervention design. *American Journal of Health Promotion, 16*(6), 331-340. <https://doi.org/10.4278/0890-1171-16.6.331>
- Bringler, R. G., Games, R., & Malloy, E. A. (1999). Colleges and universities as citizens: Issues and perspectives. In R. G. Bringler, R. Games, & E. A. Malloy (Eds.), *Colleges and universities as citizens* (pp. 1-16). Allyn & Bacon.
- Bringler, R. G., & Hatcher, J. A. (2002). Campus-community partnerships: The terms of engagement. *Journal of Social Issues, 58*(3), 503-516. <https://doi.org/10.1111/1540-4560.00273>
- Brush, B. L., Mentz, G., Jensen, M., Jacobs, B., Saylor, K. M., Rowe, Z., Israel, B. A., & Lachance, L. (2020). Success in long-standing community-based participatory research

- (CBPR) partnerships: A scoping literature review. *Health Education & Behavior*, 47(4), 556-568. <https://doi.org/10.1177/1090198119882989>
- Buhrmester, D., Furman, W., Wittenberg, M. T., & Reis, H. T. (1988). Five domains of interpersonal competence in peer relationships. *Journal of Personality and Social Psychology*, 55(6), 991-1008. <https://doi.org/10.1037//0022-3514.55.6.991>
- Butterfoss, F., Goodman, R. M., & Wandersman, A. (1993). Community coalitions for prevention and health promotion. *Health Education Review*, 8(3), 315-330. <https://doi.org/10.1093/her/8.3.315>
- Butterfoss, F. D., & Kegler, M. (2009). The community coalition action theory. In R. J. DiClemente, R. A. Crosby, & M. C. Kegler (Eds.), *Emerging theories in health promotion practice and research: Strategies for improving public health* (2nd ed., pp. 237-276). Jossey-Bass.
- Cacari-Stone, L., Wallerstein, N., Garcia, A. P., & Minkler, M. (2014). The promise of community-based participatory research for health equity: A conceptual model for bridging evidence with policy. *American Journal of Public Health*, 104(9), 1615-1623. <https://doi.org/10.2105/AJPH.2014.301961>
- Charmaz, K. (2014). *Constructing grounded theory* (2nd ed.). Sage.
- Chinman, M. J., Anderson, C. M., Imm, P. S., Wandersman, A., & Goodman, R. M. (1996). The perceptions of costs and benefits of high active versus low active groups in community coalitions at different stages in coalition development. *Journal of Community Psychology*, 24(3), 263-274. [https://doi.org/10.1002/\(SICI\)1520-6629\(199607\)24:3%3C263::AID-JCOP6%3E3.0.CO;2-Y](https://doi.org/10.1002/(SICI)1520-6629(199607)24:3%3C263::AID-JCOP6%3E3.0.CO;2-Y)
- Christopher, S., Burhansstipanov, L., Knows His Gun McCormick, A., & Simonds, V. W. (2013). Using a CBPR approach to develop an interviewer training manual with members of the Apsaalooke Nation. In B. A. Israel, E. Eng, A. J. Schulz, & E. A. Parker (Eds.), *Methods for community-based participatory research for health* (2nd ed.). Jossey-Bass.
- Davis, K. L., Kliever, B. W., & Nicolaidis, A. (2017). Power and reciprocity in partnerships: Deliberative civic engagement and transformative learning in community-engaged scholarship. *Journal of Higher Education Outreach and Engagement*, 21(1), 30-54. <https://files.eric.ed.gov/fulltext/EJ1139493.pdf>
- El Ansari, W., & Phillips, C. J. (2004). The costs and benefits to participants in community partnerships: A paradox? *Health Promotion Practice*, 5(1), 35-48. <https://doi.org/10.1177/1524839903258066>
- Friedmann, R. R., Florin, P., Wandersman, A., & Meier, R. (1988). Local action on behalf of local collectives in the U.S. and Israel: How different are leaders from members in voluntary associations? *Journal of Voluntary Action Research*, 17(3-4), 36-54. <https://doi.org/10.1177/0899764088017003-404>
- Gearhart, M. C. (2019). Preventing neighborhood disorder: Comparing alternative models of collective efficacy theory using structural equation modeling. *American Journal of Community Psychology*, 63(1-2), 168-178. <https://doi.org/10.1002/ajcp.12317>
- Gibbs, L., Gold, L., Kulkens, M., Riggs, E., Gemert, C. V., & Waters, E. (2008). Are the potential benefits of a community-based participatory approach to public health research worth the potential costs? *Just Policy*, 47, 54-58. <http://hdl.handle.net/10536/DRO/DU:30017097>
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review*, 25(2), 161-178. <https://doi.org/10.2307/2092623>

- Granner, M. L., & Sharpe, P. A. (2004). Evaluating community coalition characteristics and functioning: A summary of measurement tools. *Health Education Research, 19*(5), 514-532. <https://doi.org/10.1093/her/cyg056>
- Hicks, S., Duran, B., Wallerstein, N., Avila, M., Belone, L., Lucero, J., Magarati, M., Mainer, E., Martin, D., Muhammad, M., Oetzel, J., Pearson, C., Sahota, P., Simonds, V., Sussman, A., Tafoya, G., & Hat, E. W. (2012). Evaluating community-based participatory research to improve community-partnered science and community health. *Progress in Community Health Partnerships: Research, Education, and Action, 6*(3), 289-299. <https://doi.org/10.1353/cpr.2012.0049>
- Homans, G. C. (1961). *Social behavior and its elementary forms*. Harcourt, Brace & World.
- Hopkinson, J. B., Wright, D. N., & Corner, J. L. (2005). Seeking new methodology for palliative care research: Challenging assumptions about studying people who are approaching the end of life. *Palliative Medicine, 19*(7), 532-537. <https://doi.org/10.1191/0269216305pm1049oa>
- Israel, B. A., Eng, E., Schulz, A. J., & Parker, E. A. (2013a). Introduction to methods for CBPR for health. In B. A. Israel, E. Eng, A. J. Schulz, & E. A. Parker (Eds.), *Methods for community-based participatory research for health* (2nd ed., pp. 4-37). Jossey-Bass.
- Israel, B. A., Eng, E., Schulz, A. J., & Parker, E. A. (2013b). *Methods for community-based participatory research for health*. Jossey-Bass.
- Israel, B. A., Krieger, J., Vlahov, D., Ciske, S., Foley, M., Fortin, P., Guzman, J. R., Lichtenstein, R., McGranaghan, R., Palermo, A., & Tang, G. (2006). Challenges and facilitating factors in sustaining community-based participatory research partnerships: Lessons learned from the Detroit, New York City and Seattle Urban Research Centers. *Journal of Urban Health, 83*(6), 1022-1040. <https://doi.org/10.1007/s11524-006-9110-1>
- Israel, B. A., Lachance, L., Coombe, C. M., Lee, S. D., Jensen, M., Wilson-Powers, E., Mentz, G., Muhammad, M., Rowe, Z., Reyes, A. G., & Brush, B. L. (2020). Measurement approaches to partnership success: Theory and Methods for measuring success in long-standing community-based participatory research partnerships. *Progress in Community Health Partnerships: Research, Education, and Action, 14*(1), 129-140. <https://doi.org/10.1353/cpr.2020.0015>
- Israel, B. A., Lantz, P. M., McGranaghan, R., Guzman, J. R., Lichtenstein, R., & Rowe, Z. (2013). Documentation and evaluation of CBPR partnerships: The use of in-depth interviews and closed ended questionnaires. In B. A. Israel, E. Eng, A. J. Schulz, & E. A. Parker (Eds.), *Methods for community-based participatory research for health* (2nd ed., pp.369-398). Jossey-Bass.
- Israel, B. A., Lichtenstein, R., Lantz, P., McGranaghan, R., Allen, A., Guzman, J. R., Softley, D., & Maciak, B. (2001). The Detroit Community-Academic Urban Research Center: Development, implementation, and evaluation. *Journal of Public Health Management & Practice, 7*(5), 1-19. <https://doi.org/10.1097/00124784-200107050-00003>
- Israel, B. A., Schulz, A. J., Parker, E. A., & Becker, A. B. (1998). Review of community-based research: Assessing partnership approaches to improve public health. *Annual Review of Public Health, 19*(1), 173-202. <https://doi.org/10.1146/annurev.publhealth.19.1.173>
- Israel, B. A., Schulz, A. J., Parker, E. A., Becker, A. B., Allen, A. J., Guzman, J. R., & Lichtenstein, R. (2018). Critical issues in developing and following CBPR principles. In N. Wallerstein, B. Duran, J. Oetzel, & M. Minkler (Eds.), *Community-based participatory research for health: Advancing social and health equity* (3rd ed., pp. 31-44). Jossey-Bass.
- Kelley, H. H., & Thibaut, J. W. (1978). *Interpersonal relations: A theory of interdependence*. John Wiley.

- Kelly, J. G. (1979). Tain't what you do, it's the way that you do it. *American Journal of Community Psychology*, 7(3), 244-261.
- Kennedy, C., Vogel, A., Goldberg-Freeman, C., Kass, N., & Farfel, M. (2009). Faculty perspectives on community-based research: "I see this still as a journey." *Journal of Empirical Research on Human Research Ethics*, 4(2), 3-16. <https://doi.org/10.1525/jer.2009.4.2.3>
- Klandermans, B. (1984). Mobilization and participation: Social-psychological expansions of resource mobilization theory. *American Sociological Review*, 49(5), 583-600. <https://doi.org/10.2307/2095417>
- Mirvis, P. H. (2014). JABS at 50: Applied behavioral science and something more? *Journal of Applied Behavioral Science*, 50(4), 371-400. <https://doi.org/10.1177/0021886314549924>
- Molm, L. D. (1994). Dependence and risk: Transforming the structure of social exchange. *Social Psychology Quarterly*, 57(3), 163-176. <https://www.jstor.org/stable/2786874>
- Molm, L. D. (2010). The structure of reciprocity. *Social Psychology Quarterly*, 73(2), 119-131. <https://doi.org/10.1177/0190272510369079>
- Muhammad, M., Garzón, C., Reyes, A. G., & the West Oakland Environmental Indicators Project (2018). Critical issues in developing and following CBPR principles. In N. Wallerstein, B. Duran, J. Oetzel, & M. Minkler (Eds.), *Community-based participatory research for health: Advancing social and health equity* (3rd ed., pp. 47-59). Jossey-Bass.
- Norton, S., Wandersman, A., & Goldman, C. R. (1993). Perceived costs and benefits of membership in a self-help group: Comparisons of members and nonmembers of the Alliance for the Mentally Ill. *Community Mental Health Journal*, 29(2), 143-160. <https://doi.org/10.1007/BF00756340>
- Nowell, B., & Boyd, N. (2010). Viewing community as responsibility as well as resource: Deconstructing the theoretical roots of psychological sense of community. *Journal of Community Psychology*, 38(7), 828-841. <https://doi.org/10.1002/jcop.20398>
- Nowell, B., & Boyd, N. (2014). Sense of community responsibility in community collaboratives: Advancing a theory of community as resource and responsibility. *American Journal of Community Psychology*, 54(3-4), 229-242. <https://doi.org/10.1007/s10464-014-9667-x>
- Oetzel, J. G., Wallerstein, N., Duran, B., Sanchez-Youngman, S., Nguyen, T., Woo, K., Wang, J., Schulz, A., Kaholokula, J. K., Israel, B., & Alegria, M. (2018). Impact of participatory health research: A test of the community-based participatory research conceptual model. *BioMed Research International*, 2018, Article 7281405. <https://doi:10.1155/2018/7281405>
- Pivik, J. R., & Goelman, H. (2011). Evaluation of a community-based participatory research consortium from the perspective of academics and community service providers focused on child health and well-being. *Health Education & Behavior*, 38(3), 271-281. <https://doi.org/10.1177/1090198110372876>
- Plumb, M., Collins, N., Cordeiro, J. N., & Kavanaugh-Lynch, M. (2008). Assessing process and outcomes: Evaluating community-based participatory research. *Progress in Community Health Partnerships: Research, Education, and Action*, 2(2), 87-97. <https://doi.org/10.1353/cpr.0.0020>
- Prestby, J., Wandersman, A., Florin, P., Rich, R., & Chavis, R. (1990). Benefits, costs, incentive management and participation in voluntary organizations: A means to understanding and promoting empowerment. *American Journal of Community Psychology*, 18(1), 117-149. <https://doi.org/10.1007/BF00922691>
- Ross, L. F., Loup, A., Nelson, R. M., Botkin, J. R., Kost, R., Smith, G. R., Jr., & Gehlert, S. (2010). The challenges of collaboration for academic and community partners in a research partnership: Points to consider. *Journal of Empirical Research on Human Research Ethics*, 5(1), 19-31. <https://doi.org/10.1525/jer.2010.5.1.19>

- Rusbult, C. E. (1980). Commitment and satisfaction in romantic associations: A test of the investment model. *Journal of Experimental Social Psychology, 16*(2), 172-186. [https://psycnet.apa.org/doi/10.1016/0022-1031\(80\)90007-4](https://psycnet.apa.org/doi/10.1016/0022-1031(80)90007-4)
- Rusbult, C. E. (1983). A longitudinal test of the investment model: The development (and deterioration) of satisfaction and commitment in heterosexual involvements. *Journal of Personality and Social Psychology, 45*(1), 101-117. <https://doi.org/10.1037/0022-3514.45.1.101>
- Sabatelli, R. M. (1988). Exploring relationship satisfaction: A social exchange perspective on the interdependence between theory, research, and practice. *Family Relations, 37*(2), 217-222. <https://doi.org/10.2307/584323>
- Sarason, S. B. (1974). *The psychological sense of community: Prospects for a community psychology*. Jossey-Bass.
- Schulz, A. J., Israel, B. A., Parker, E. A., Lockett, M., Hill, Y. R., & Wills, R. (2003). Engaging women in community based participatory research for health: The East Side Village Health Worker Partnership. In M. Minkler & N. Wallerstein (Eds.), *Community-based participatory research for health* (pp. 293-315). Jossey-Bass.
- Southerland, J., Behringer, B., & Slawson, D. L. (2013). Using the give-get grid to understand potential expectations of engagement in a community-academic partnership. *Health Promotion Practice, 14*(6), 909-1017. <https://doi.org/10.1177/1524839913477657>
- Strauss, A., & Corbin, J. (2015). *Basics of qualitative research: Grounded theory procedures and techniques* (4th ed.). Sage.
- Suarez-Balcazar, Y. (2020). Meaningful engagement in research: Community residents as co-creators of knowledge. *American Journal of Community Psychology, 65*(3-4), 261-271. <https://doi.org/10.1002/ajcp.12414>
- Thibaut, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. Wiley.
- Trotter, R. T., Laurila, K., Alberts, D., & Huenneke, L. F. (2015). A diagnostic evaluation model for complex research partnerships with community engagement: The partnership for Native American Cancer Prevention (NACP) model. *Evaluation and Program Planning, 48*(February), 10-20. <https://doi.org/10.1016/j.evalprogplan.2014.09.001>
- Van de Ven, A. H., & Johnson, P. E. (2006). Knowledge for theory and practice. *Academy of Management Review, 31*(4), 802-821. <https://doi.org/10.5465/amr.2006.22527385>
- Viswanathan, M., Ammerman, A., Eng, E., Garlehner, G., Lohr, K. N., Griffith, D., Rhodes, S., Samuel-Hodge, C., Maty, S., Lux, L., Webb, L., Sutton, S. F., Swinson, T., Jackman, A., & Whitener, L. (2004). *Community-based participatory research: Assessing the evidence: Summary* (AHRQ evidence report summaries). Agency for Healthcare Research and Quality. <https://www.ncbi.nlm.nih.gov/sites/books/NBK11852/>
- Wallerstein, N., & Duran, B. (2010). Community-based participatory research contributions to intervention research: The intersection of science and practice to improve health equity. *American Journal of Public Health, 100*(S1), S40-S46. <https://doi.org/10.2105/AJPH.2009.184036>
- Wallerstein, N., Duran, B., Oetzel, J. G., & Minkler, M. (2018). Critical issues in developing and following CBPR principles. In N. Wallerstein, B. Duran, J. Oetzel, & M. Minkler (Eds.), *Community-based participatory research for health: Advancing social and health equity* (3rd ed., pp. 3-13). Jossey-Bass.
- Wandersman, A., & Alderman, J. (1993). Incentives, costs, and barriers for volunteers: A staff perspective on volunteers in one state. *Review of Public Personnel Administration, 13*(1), 67-76. <https://doi.org/10.1177/0734371X9301300106>

- Wandersman, A., Florin, P., Friedmann, R. R., & Meier, R. B. (1987). Who participates, who does not, and why? An analysis of voluntary neighborhood organizations in the United States and Israel. *Sociological Forum*, 2(3), 534-555. <https://doi.org/10.1007/BF01106625>
- Williams, R. L., Shelley, B. M., & Sussman, A. L. (2009). The marriage of community-based participatory research and practice-based research networks: Can it work? A Research Involving Outpatient Settings network (RIOS Net) study. *Journal of the American Board of Family Medicine*, 22(4), 428-435. <https://doi.org/10.3122/jabfm.2009.04.090060>
- World Health Organization Commission on Social Determinants of Health. (2008). *Closing the gap in a generation: Health equity through action on the social determinants of health* (Commission on Social Determinants of Health final report). https://www.who.int/social_determinants/thecommission/finalreport/en/
- Ziegler, T., Coombe, C. M., Rowe, Z. E., Clark, S. J., Gronland, C. J., Lee, M., & O'Neill, M. S. (2019). Shifting from “community-placed” to “community-based” research to advance health equity: A case study of the Heatwaves, Housing, and Health: Increasing Climate Resiliency in Detroit (HHH) partnership. *International Journal of Environmental Research and Public Health*, 16(18), Article 3310. <https://doi.org/10.3390/ijerph16183310>