



Success in Long-Standing Community-Based Participatory Research (CBPR) Partnerships: A Scoping Literature Review

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Abstract

Background. Community-based participatory research (CBPR) is increasingly used by community and academic partners to examine health inequities and promote health equity in communities. Despite increasing numbers of CBPR partnerships, there is a lack of consensus in the field regarding what defines partnership success and how to measure factors contributing to success in long-standing CBPR partnerships. **Aims.** To identify indicators and measures of success in long-standing CBPR partnerships as part of a larger study whose aim is to develop and validate an instrument measuring success across CBPR partnerships. **Methods.** The Joanna Briggs Institute framework and Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guided searches of three databases (PubMed, CINAHL, Scopus) for articles published between 2007 and 2017 and evaluating success in CBPR partnerships existing longer than 4 years. **Results.** Twenty-six articles met search criteria. We identified 3 key domains and 7 subdomains with 28 underlying indicators of success. Six partnerships developed or used instruments to measure their success; only one included reliability or validity data. **Discussion.** CBPR partnerships reported numerous intersecting partner, partnership, and outcome indicators important for success. These results, along with data from key informant interviews with community and academic partners and advisement from a national panel of CBPR experts, will inform development of items for an instrument measuring CBPR partnership success. **Conclusion.** The development of a validated instrument measuring indicators of success will allow long-standing CBPR partnerships to evaluate their work toward achieving health equity and provide a tool for newly forming CBPR partnerships aiming to achieve long-term success.

Keywords

community-based participatory research (CBPR), indicators and measures of partnership success, long-standing CBPR partnerships, successful CBPR partnerships

Community-based participatory research (CBPR), which emphasizes equitable involvement of both community and academic partners throughout the research process (Israel, Schulz, Parker, & Becker, 1998), is increasingly used to examine health inequities and promote health equity in communities (Cacari-Stone, Wallerstein, Garcia, & Minkler, 2014; Israel et al., 2018; Minkler, 2010; Wallerstein & Duran, 2010). Despite the growth of CBPR partnerships over the past two decades, there is a lack of consensus in the field as to what defines and constitutes CBPR partnership success and few studies that explicitly describe indicators influencing CBPR partnership success over time or ways to measure these indicators in valid and reliable ways

(Arroyo-Johnson et al., 2015; Cyril, Smith, Passamai-Inesedy, & Renzaho, 2015).

After a comprehensive review of the literature, for example, Sandoval et al. (2012) developed a matrix of tools for measuring community–academic partnership context, group dynamics, and the impact of these participatory processes on

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systems change and health outcomes. Unfortunately, few of the 46 instruments and 224 individual measures that they found contained validity and reliability information. Oetzel et al. (2015) later provided evidence of the psychometric properties (internal consistency, factorial validity, and convergent/discriminant validity) of 22 measures of CBPR context, group dynamics, methods, and health-related outcomes used in a national survey of partners from 294 federally funded CBPR or community-engaged research projects. While measuring various aspects of CBPR partnerships, however, none specifically measured success in long-standing CBPR partnerships.

Indeed, while partnerships that have achieved longevity may hold the key to better understanding CBPR partnership success, there remains a dearth of validated measurement instruments that assess the dimensions associated with such longevity. Lessons learned from established CBPR partnerships show clear evidence that sustaining partnerships may be as time-consuming, resource intensive, and challenging as building partnerships (Weiss et al., 2012) and that how partnerships navigate challenges over time is critical to their success (Israel et al., 2006). Israel et al. (2006) identified different dimensions of CBPR partnership sustainability (long-term outcomes), including that partnerships maintain effective relationships and partner member commitment; that they sustain the knowledge, capacity, and values generated through the partnership; and that they have ongoing funding, staff, and programs. They suggest the need for more widespread testing of these dimensions and their association with CBPR partnership success. In a study of three long-standing (>14 years) CBPR partnerships affiliated with the Detroit Community-Academic Urban Research Center (Brakefield-Caldwell, Reyes, Rowe, Weinert, & Israel, 2015), the investigators found that success may also relate to how individuals, organizations, and the community benefit from a CBPR partnership over time, such as whether the partnership or community is empowered, whether there are actual and timely deliverables (e.g., publications, grants), and whether there are tangible community health benefits and changes in policies and practices. Furthermore, it is beneficial for public health practitioners, academics, and community entities to understand what makes a CBPR partnership successful given the time required for CBPR efforts to have far-reaching impacts on advancing health equity (Cacari-Stone, Minkler, Freudenberg, & Themba, 2018; Tsui, Cho, & Freudenberg, 2013). Thus, defining and measuring indicators leading to successful long-standing CBPR partnerships is important in helping CBPR partnerships assess their progress toward achieving health equity.

This scoping review is part of the 5-year federally funded Measurement Approaches to Partnership Success (MAPS) project, whose overall aim is to improve understanding of how intermediate and long-term factors contribute to successful long-standing CBPR partnerships by developing and validating a measurement tool to assess them. Long-standing

partnerships in the MAPS study are defined as those in existence for 6 years or longer. The rationale for selecting this time frame is that it corresponds to a year beyond the usual 5-year cycle for federal funding, thus being an indicator that a partnership was successful in extending beyond a single funding period. The MAPS study builds on and extends the CBPR conceptual framework developed by Schulz (Schulz, Israel, & Lantz, 2003), Lantz (Lantz et al., 2001), Israel (Israel et al., 2013; Israel, Lantz, McGranaghan, Kerr, & Guzman, 2005) and colleagues, which postulates that a CBPR partnership's ability to achieve its long-term outcomes is influenced by intermediate outcomes of partnership effectiveness, which are shaped by the partnership's programs and interventions. They are also influenced by the group dynamic characteristics of the partnership (e.g., trust, communication, leadership, decision making), which, in turn, are shaped by a partnership's structure (e.g., membership). All processes are influenced by broader environmental factors and the socioeconomic and cultural context within which a partnership operates. In the MAPS version of the framework (Figure 1), CBPR partnership success is conceptualized as a separate construct over and above and as a function of intermediate and long-term partnership outcomes.

To address gaps in the literature identified above, the aim of this scoping review is to identify how long-standing CBPR partnerships define success and what published measures of success in such partnerships are currently in use. Findings from this review, along with key informant interview data collected as part of the MAPS project and described elsewhere (Israel et al., under review 2019) inform the development of items for inclusion in the MAPS instrument as well as identify potential long-standing CBPR partnerships for recruitment as part of a national sample to test the instrument's validity.

Method

Search Methodology

The literature search followed the Joanna Briggs Institute (2015) framework for conducting scoping reviews, along with Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Moher, Liberati, Tetzlaff, Altman, & The PRISMA Group, 2009). A health sciences library specialist (KS) performed systematic searches of PubMed, Scopus, and CINAHL (EBSCO) in February 2017 with weekly search updates for all three databases through September 2017. Major search terms for all databases were represented by both controlled vocabulary and keywords on concepts of CBPR and measures for successful collaboration (see Table 1). The search was restricted to English-language studies and to articles published between 2007 and 2017 to capture literature that overlapped or was published after Sandoval et al. (2012). Specific inclusion and exclusion criteria are outlined in Table 2.

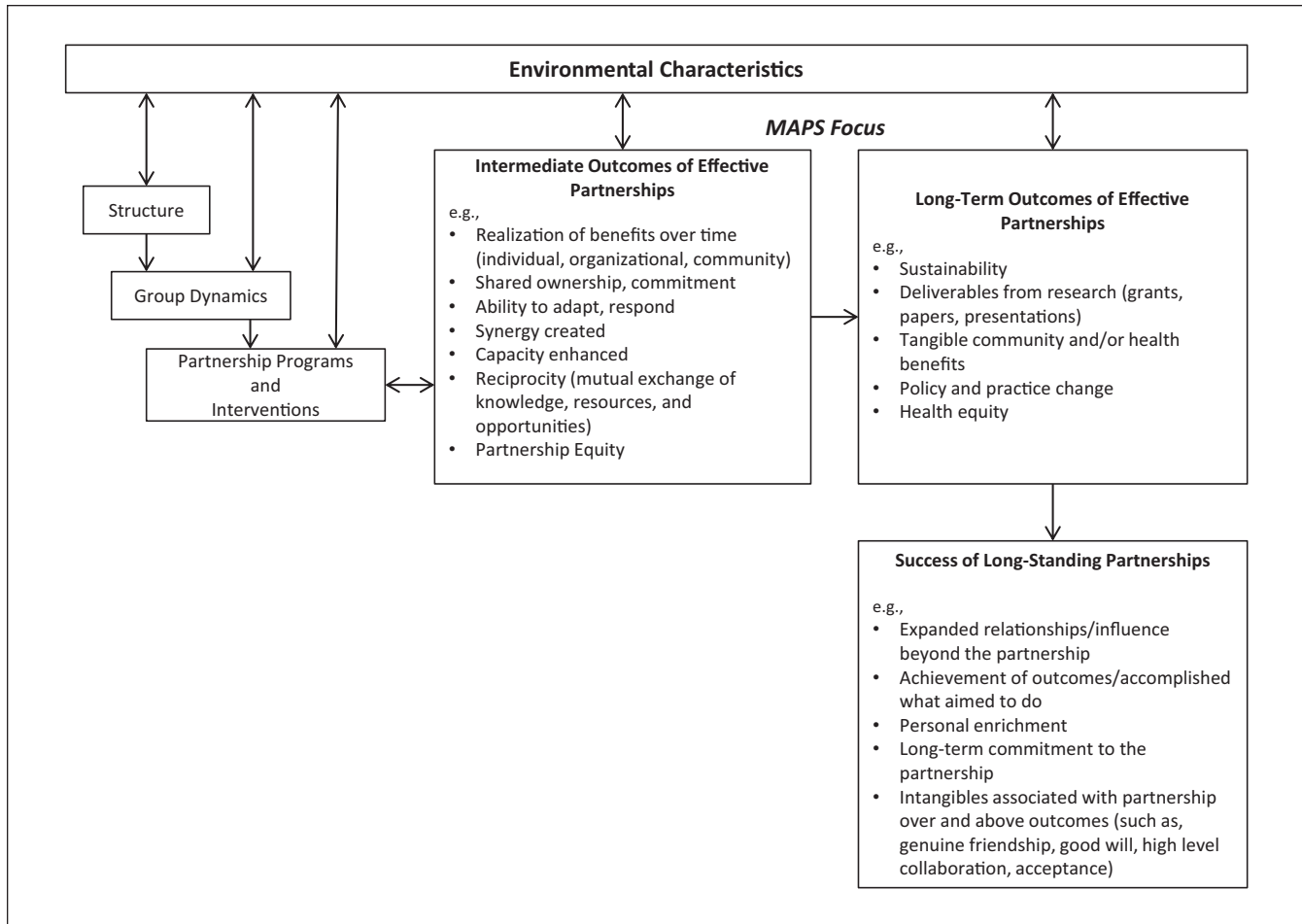


Figure 1. Conceptual framework for understanding and assessing success in long-standing community-based participatory research partnerships.

Source. Adapted from the original model by Lantz et al. (2001); Schulz, Israel, and Lantz (2003); Israel et al. (2005); and Israel et al. (2013), drawing on the work of Lasker and Weiss (2003), Sofaer (2000), and Wallerstein et al. (2008).

Table 1. Search Terms and Databases Used in the Scoping Review of the Literature on Success in Long-Standing Community-Based Participatory Research (CBPR) Partnerships.

Database	Search strategy
PubMed Limits: 2007 to 2/1/2017, English Final search 9/29/17	(“Community-Based Participatory Research”[Mesh] OR CBPR [tiab] OR “Community-Based Participatory Research”[tiab]) AND (“Community-Institutional Relations”[majr] OR “Cooperative Behavior”[majr] OR “Program Evaluation”[majr])
CINAHL Complete (EBSCO) Limits: 2007 to 2/1/2017, English Final search 9/29/17	(TI (“Community-Based Participatory Research” OR CBPR) OR AB (“Community-Based Participatory Research” OR CBPR)) AND (MH “Community-Institutional Relations”) OR (MH “Cooperative Behavior”) OR (MH “Program Evaluation”)
Scopus (Elsevier) Limits: 2007 to 2/1/2017, English Final search 9/29/17	TITLE-ABS-KEY (“Community-Based Participatory Research” OR CBPR) AND (Relations OR Cooperative OR “Program Evaluation”)

Table 2. Inclusion and Exclusion Criteria Utilized in the Scoping Review of Literature on Success in Long-Standing Community-Based Participatory Research (CBPR) Partnerships.

Inclusion	Exclusion
English-language articles Published in peer-reviewed journals between 2007 and 2017	Articles with only partial content in English Dissertations, presentations/poster abstracts, brief reports, letters to the editor, and literature reviews
Partnerships described as CBPR Long-standing CBPR partnership (≥ 4 years) Focus on partnership evaluation Addressed concepts/indicators of partnership success, long-term outcomes, effectiveness, or sustainability	Not explicitly CBPR Partnership longevity < 4 years Intervention studies Focus on partnership development

Study Selection, Data Extraction, and Analysis

While we initially intended to include only CBPR partnerships in existence 6 years or longer as per MAPS study criteria, we adjusted our inclusion criteria to include CBPR partnerships in existence 4 years or longer because we identified a number of articles involving such partnerships, which, based on our preliminary analyses, found numerous similar

results compared with more long-standing partnerships and we did not want to exclude them from informing our findings. The process of article selection is presented in a PRISMA flow diagram (Figure 2). EndNote X7 (Clarivate Analytics, 2017) was used to organize and dedupe citations and Zotero (Roy Rosenzweig Center for History and New Media, 2016) to manage citations throughout the review process.

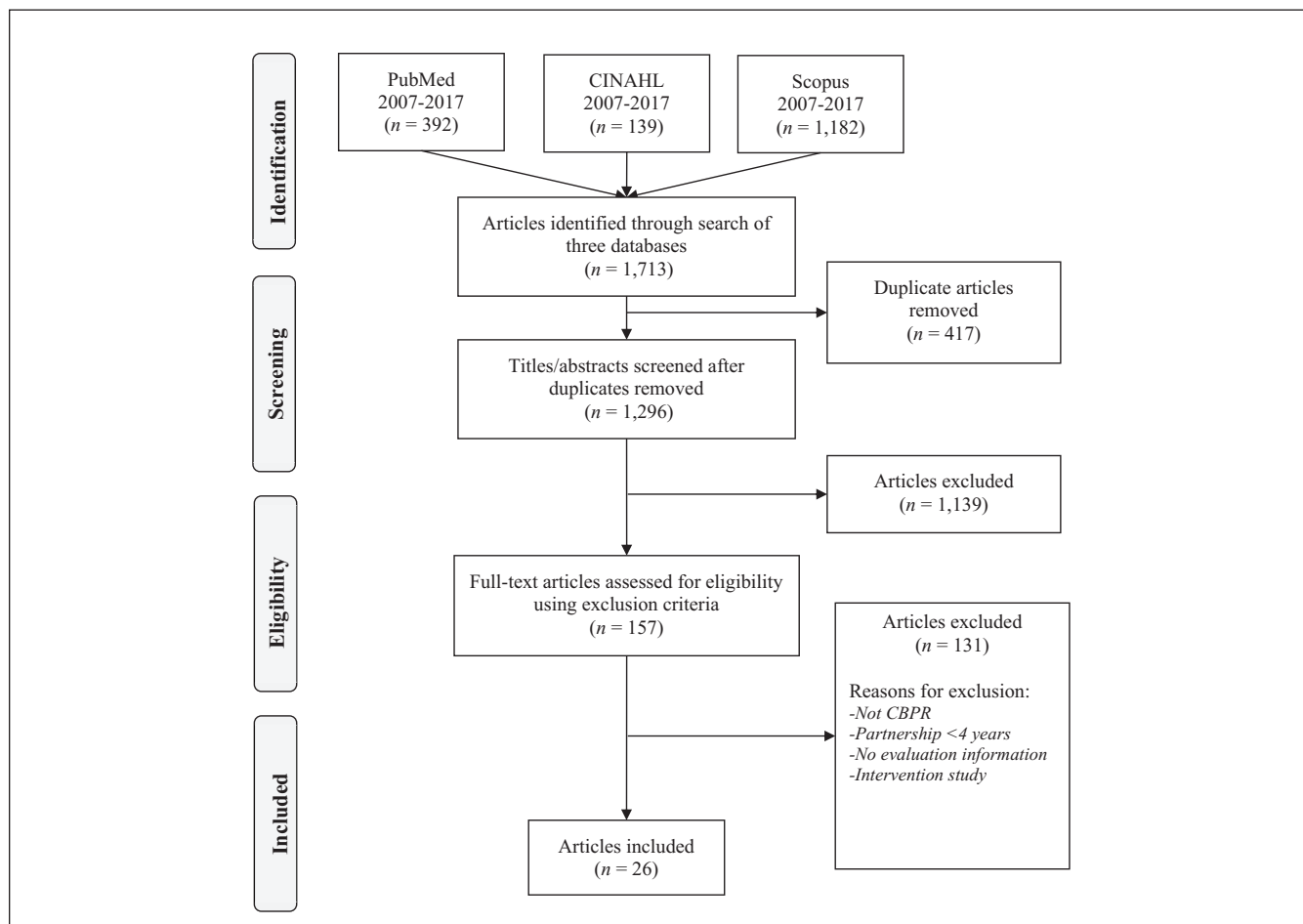


Figure 2. Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram of the scoping review of literature on success in long-standing community-based participatory research (CBPR) partnerships.

The search resulted in a total of 1,713 articles. After duplicate removal ($n = 417$), the title and abstracts of 1,296 articles were independently assessed by three reviewers (GM, KMS, and MJ) for eligibility. A fourth review author (BLB) resolved all conflicts with a total of 1,139 articles excluded. The remaining 157 articles were then downloaded for full-text review and independently assessed for eligibility by applying exclusion criteria (BB and LL). Another 131 articles were removed. The major reasons for exclusion were that partnerships did not explicitly use a CBPR approach, were new or in early development (<4 years), did not provide partnership evaluation information, and/or described evaluation of specific interventions conducted by the partnership rather than evaluation of the partnership itself. A final data set of 26 articles remained. The characteristics of included studies were then independently extracted by two research authors (MJ and BJ) and summarized by partnership name, location, research focus, longevity, partnership evaluation description, and evaluation measures and psychometric data if available (Table 3). During the data extraction process, all reviewers independently reread each study and developed a list of indicators of CBPR partnership success. After comparing and reaching consensus on success indicators, the authors then categorized the indicators under overarching domains and subdomains.

Results

The characteristics of the final 26 articles, summarized in Table 3, represent CBPR partnerships in existence between 4 and 23 years. Ten partnerships were in the 4- to 5-year range of long-standing, and 16 were in existence for 6 years or longer. Nineteen articles described indicators of success through partnership self-evaluation, case study, lessons learned, and/or a combination of these. Only four partnerships described the development of instruments to measure their partnerships (Arora, Krumholz, Guerra, & Leff, 2015; Arroyo-Johnson et al., 2015; Goodman et al., 2017; Pivik & Goelman, 2011), and two used previously established instruments (Hill et al., 2008; Mason et al., 2013). The primary methods used for partnership self-evaluation were surveys, interviews, and/or observations designed by and limited to that partnership alone (Allen et al., 2013; Arroyo-Johnson et al., 2015; Brakefield-Caldwell et al., 2015; Chambers et al., 2015; Goold et al., 2016; Hicks et al., 2012; Jagosh et al., 2015; James et al., 2011; Malone, McGruder, Froelicher, & Yerger, 2013; Morales et al., 2016; Moreno et al., 2009; Tajik & Minkler, 2006).

Most partnerships were located in the United States with research varying by population and focus area. The 24 U.S. partnerships were in the Midwest ($n = 6$), Southwest ($n = 6$), Southeast ($n = 4$), Northeast ($n = 3$), Northwest ($n = 1$), Mountain Region ($n = 1$), and the Hawaii/Pacific Islands ($n = 1$). One partnership extended across multiple U.S. sites, and two were in Canada (British Columbia and

Saskatchewan). Authorship included academic and community partners in 18 articles, with 20 (77%) first authored by an academic and 6 (23%) first authored by a community partner. Seven articles (26.9%) were written solely by academics.

The key domains we identified reflect reported indicators of success at the partner and partnership level and how these influenced broader partnership outcomes. As shown in Table 4, we categorized these indicators under two partner-level subdomains (characteristics of individual partners and relationships among/between partners), four partnership-level subdomains (partnership characteristics, partnership processes, partnership resources, and partnership capacity), and one partnership outcome subdomain (partnership outcomes).

Partner Domain

Characteristics of Individual Partners. Seven reported partner characteristics reflected the composition and attributes of individual members or partner organizations within successful long-standing CBPR partnerships. These include that partners were diverse; committed; willing to share power, risk, responsibility, and accountability; representative and appropriate to partnership goals and objectives; able to make decisions; actively engaged; and stable and established members of the community and/or partner organizations.

Diverse partners identified include individuals from different cultures and backgrounds with varying skills, knowledge, and expertise (Chino, 2012); who mirror community variations in age, gender, race, and ethnicity (Morgan et al., 2014); represent different interests and organizations; and bring new and different ideas and opinions to bear on partnership work (James et al., 2011). Partners who are committed to the partnership and its work and share power, risk, responsibility, and accountability create the atmosphere and support for positive collaborations that facilitate long-term partnerships (Baquet, Bromwell, Hall, & Frego, 2013; Ferré, Jones, Norris, & Rowley, 2010; Pivik & Goelman, 2011). Individual partner characteristics identified also indicated that they be representative and appropriate to the partnership's work such that they bring their unique skills, expertise, and perspectives to all aspects of the partnership's research (Ferré et al., 2010; Goold et al., 2016; Johnson et al., 2009; Pivik & Goelman, 2011). In addition, such partners need to be able to make decisions on behalf of the organizations they represent (Baquet, 2012; Hicks et al., 2012) and actively engage at all levels of partnership work to ensure that community needs and goals are prioritized (Chino, 2012; Goodman et al., 2017; Morales et al., 2016). Last, partnerships with stable and established community partners with prior CBPR experience in health-related projects and programs were deemed more likely to achieve long-standing (Moreno, Rodriguez, Lopez, Bholat, & Dowling, 2009) success.

Table 3. Characteristics of Included Articles in the Scoping Review of Literature on Success in Long-Standing Community-Based Participatory Research (CBPR) Partnerships (n = 26).

First author, year	Partnership(s)	Partnership research focus/location	Length of partnership in years (at time of publication)	Description of evaluation/focus	Measures/instruments	Reliability/validity data
Allen, 2013	Padres Informados/Jovenes Preparados (Informed Parents/Prepared Youth)	Positive family skills development Minnesota	6	Described a framework for partnership development and maturation based on Erikson's eight stages of psychosocial development and provided lesson learned as the partnership moved through each stage. Developed a measure of key dimensions of CBPR partnership development and growth.	None reported	N/A
Arora, 2015	Unnamed	Youth aggression prevention Multisite (United States)	5	Case study that described development of an evaluation survey of adherence to, effectiveness of, and implementation of CBPR principles in two community network programs (CNPs) using CBPR. Evaluated a model to increase public trust in research and enhance community and academic capacity to address community health needs through a CBPR approach. Described key components of maintaining the partnership.	Partnership Assessment in Community-Based Research (PAIR) Program for the Elimination of Cancer Disparities (PECaD) Survey None reported	Not provided Not provided N/A
Arroyo-Johnson, 2015	Padres Informados/Jovenes Preparados (Program for the Elimination of Cancer Disparities)	Cancer disparities elimination and cancer prevention Missouri and Minnesota	5			
Baquet, 2012	Unnamed	General community health status improvement Maryland	18			
Baquet, 2013	Eastern Shore Area Health Education Center and University of Maryland School of Medicine	Health and social issues in rural populations Maryland	23			
Brakefield-Caldwell, 2015	Detroit Community-Academic Urban Research Center	Health equity promotion and CBPR partnerships Detroit, Michigan	22	Described benefits, challenges and factors facilitating partnership effectiveness by 3 long-time (>20 years) community partners and affiliated partnerships. Described the partnership's challenges and strategies over time and recommendations for other CBPR partnerships.	None reported	N/A
Chambers, 2015	Patient Voices Network	Cancer prevention Buffalo, New York	19		None reported	N/A
Chino, 2012	The Southwest American Indian Collaborative Network	Cancer disparities in American Indians Southwest United States	5	Described lesson learned and work with tribal communities to build capacity in understanding and responding to cancer disparities and conducting research.	None reported	N/A
Cook, 2012	Asian and Pacific Islander American Health Forum and Association of Asian Pacific Community Health Organizations	Health disparities in Asian American, Native Hawaiian, and Pacific Islander communities Hawaii, Pacific Islands	5	Described strategies by two national umbrella organizations in leading research efforts for Asian American, Native Hawaiian, and Pacific Islander communities.	None reported	N/A
Corbie-Smith, 2015	Project GRACE (Growing, Reaching, Advocating for Change and Empowerment)	HIV prevention/risk reduction in early adolescents and families Eastern North Carolina	10	Described the capacity and equity building model used to sustain Project GRACE over its 10-year history.	None reported	N/A
Ferré, 2010	Healthy African American Families	Health disparities in the African American community Los Angeles, California	20+	Described how CBPR provided the mechanism for directing power, collective action, system change, and social justice in addressing community-level health disparities over three phases of the partnership. Described early stage process of a quantitative measure to assess the level of engagement among community members.	None reported	N/A
Goodman, 2017	Program for the Elimination of Cancer Disparities	Cancer disparities Missouri	14		Quantitative Community Engagement Measure	Internal consistency 0.99
Goold, 2016	Deliberative Engagement of Communities in Decisions about Research	Community engagement in CBPR Michigan, Great Lakes Region	5	Described the formative and development evaluation of the partnership over a 5-year period and key domains of success related to conducting CBPR projects.	None reported	N/A

(continued)

Table 3. (continued)

First author, year	Partnership(s)	Partnership research focus/location	Length of partnership in years (at time of publication)	Description of evaluation/focus	Measures/instruments	Reliability/validity data
Hicks, 2012	National Congress of American Indians Policy Research Center and Universities of New Mexico and Washington	CBPR for health disparities in American Indian and other communities <i>Washington and New Mexico</i>	6	Presented findings on methods and measures for CBPR research and lessons learned in their own partnership.	N/A	N/A
Hill, 2008	Douglas, Arizona Special Action Group	Diabetes prevention <i>Douglas, Arizona</i>	20+	Described and measures elements of the partnership's success.	Wilder Collaborative Factors Inventory	Not reported
Jagosh, 2015	N/A	N/A		Described interviews with 24 community and academic CBPR experts to understand factors regarding partnership synergy in successful long-standing CBPR partnerships.	None reported	N/A
James, 2011	The East and Central Harlem Health Outcomes Community Action Board	Health disparities <i>Harlem, New York</i>	9	Analyzed interviews with 16 current and former members of the partnership community action board and identified seven key domains that contributed to its success.	None reported	N/A
Johnson, 2009	The Philadelphia Area Research Community Coalition Connecting Solutions for Health	Health disparities in African Americans <i>West and Southwest Philadelphia, Pennsylvania</i>	4	Described the overall processes, developmental challenges and accomplishments of the partnership.	None reported	N/A
Johnson-Shelton, 2015	Communities and Schools Together	Childhood obesity prevention <i>Oregon</i>	5	Described the partnership's CBPR approach over time and identified five interacting lessons for other CBPR partnerships.	None reported	N/A
Malone, 2013	Protecting the "Hood" Against Tobacco (PHAT)	Tobacco use prevention in African Americans <i>San Francisco, California</i>	4	Described use of a quasi-ethnographic approach to capture benefits of the CBPR partnership beyond the research itself.	None reported	N/A
Mason, 2013	Northwestern University Alliance for Research in Chicagoland Communities	CBPR capacity development <i>Chicago, Illinois</i>	4	Described a mixed method approach to measure community CBPR capacity building over time, identified key facilitators and challenges, and offered recommendations.	Community-based organization CBPR capacity/Needs Survey	N/A
Morales, 2016	University of Montana and the Confederated Salish and Kootenai Tribes	Pharmacogenetic research with American Indian and Alaskan Native populations <i>Montana and Alaska</i>	9	Described mixed-method approach and results of a partnership self-assessment as a model to engage American Indian/American Native partners in genetic research.	Unnamed survey	N/A
Moreno, 2009	UCLA Department of Family Medicine and the Sun Valley Community	Asthma and diabetes prevention and access to primary care <i>Los Angeles County, California</i>	8	Case studies that described sustained long-term community research partnerships with UCLA Department of Family Medicine and facilitators of success.	None reported	N/A
Morgan, 2014	New Emerging Team Program	Improve care for rural people with dementia <i>Saskatchewan, Canada</i>	11	Described the evolution of benefits and challenges over three phases of the partnership.	None reported	N/A
Pivik, 2011	Consortium for Health, Intervention, Learning, and Development	Child health and well-being <i>British Columbia, Canada</i>	5	Evaluated eight CBPR partnerships within the consortium using a developed instrument to identify facilitators of academic and community partner collaboration.	The Community-Based Participatory Rating Scale	N/A
Tajik, 2006	Concerned Citizens of Tillery and the University of North Carolina School of Public Health	Public health promotion in rural North Carolina <i>North Carolina</i>	10+	Examined the long-standing partnership between Concerned Citizens of Tillery and University of North Carolina and strategies that facilitated successful outcomes.	None reported	N/A

Note. N/A = not applicable.

Table 4. Domains, Subdomains, and Indicators of Success Identified in the Scoping Review of the Literature on Success in Long-Standing Community-Based Participatory Research (CBPR) Partnerships.

Domains	Indicators
Partner domain	
Characteristics of partners	<ul style="list-style-type: none"> • Diverse • Committed • Willing to share power, risk, responsibility, and accountability • Representative/appropriate • Able to make decisions • Actively engaged • Stable and established
Relationship among/between partners	<ul style="list-style-type: none"> • Trust • Mutual respect • Openness and transparency • Recognition of pressures, priorities, and worldviews • Embrace cultural differences • Awareness and attention to power imbalances • Conflict recognition, response, and resolution
Partnership domain	
Partnership characteristics	<ul style="list-style-type: none"> • Strong, shared, and trustworthy leadership • Flexibility/adaptability • Effective communication strategies
Partnership processes	<ul style="list-style-type: none"> • Clear and explicit guidelines • Structures to support processes • Mandatory evaluations
Partnership resources	<ul style="list-style-type: none"> • Shared and fair allocation of resources
Partnership capacity	<ul style="list-style-type: none"> • Increase capacity for research
Partnership outcomes domain	
Partnership outcomes	<ul style="list-style-type: none"> • Research moves to system and policy change • Pride and ownership in partnership work • Knowledge transfer from partnership to community • Clear, concrete, and sustainable community benefit • Increased power sharing • Continued willingness/ability to conduct CBPR

Relationships Among/Between Partners. There were also seven indicators of how relationships among and between partners contribute to success in long-standing CBPR partnerships. These indicators pertain primarily to how individuals within partnerships interact with and regard one another and are trust; mutual respect; openness and transparency; recognition of one another's pressures, priorities, and world views; the ability to embrace cultural differences; awareness and attention to power differentials; and recognizing, responding to, and resolving conflict.

Building and maintaining trust was viewed as foundational to partnership sustainability (Brakefield-Caldwell et al., 2015; Chambers et al., 2015; Jagosh et al., 2015; Johnson et al., 2009). Hicks et al. (2012) noted that trust in their partnership was generated through intentional actions and behaviors whose intention was to build team capacity, achieve mutual benefit between partners, and sustain the partnership over time. Trust was often linked with mutual respect, not only in how partners engage with each other but also through valuing and acknowledging each other's experiential knowledge, skills, and participation in the partnership

(Baquet et al., 2013; Pivik & Goelman, 2011). Trusting and respecting each other led to openness and transparency such that partners were able to "share themselves" (James et al., 2011, p. 400), express true feelings (Hicks et al., 2012), and improve the work of the partnership (Arora et al., 2015; Morales et al., 2016). Partner relations were also enhanced when community and academic partners recognized each other's pressures, priorities, and worldviews (Chambers et al., 2015; Corbie-Smith et al., 2015; James et al., 2011; Malone et al., 2013; Pivik & Goelman, 2011). One community author noted, "By having a better understanding of how academia works, [community partners] have been able to support researchers. There are a lot of strict rules that researchers have to follow and most people in the community do not have a clue as to what is required in academia and what that world is like" (Brakefield-Caldwell et al., 2015, p. 303). In a further example, Chino (2012) described how understanding the Native worldview and indigenous approaches were essential in engaging tribal communities in research because "from a Native perspective, research historically means a lack of local involvement, limited local

interpretation, nothing given back to the community, a failure to incorporate cultural context, and limited attention paid to community consent issues” (p. 239). Similarly, embracing cultural differences among and between academic and community partners was identified as leading to respect of different and unique values, practices, beliefs, and community contexts (Arroyo-Johnson et al., 2015; Chino, 2012; Malone et al., 2013). It was also reported that partners need to acknowledge and attend to power imbalances that may occur between partners and the effect power asymmetry may have on the partnership itself (Goold et al., 2016; Malone et al., 2013). A final partner relationship indicator was partners’ ability to recognize, respond to, and resolve conflict (Ferré et al., 2010; Hicks et al., 2012; Malone et al., 2013). Allen et al. (2013) argue that conflict is inevitable in any collaborative endeavor and is an essential component of growth when working together; accepting that conflicts will occur and addressing them when they do, therefore, increases the likelihood that the partnership will continue.

Partnership Domains

Partnership Characteristics. Three major partnership characteristics were identified as indicators of partnership success: strong, shared, and trustworthy leadership; flexibility and adaptability in research activities, internal operations, and community engagement; and effective communication strategies.

The partnership’s commitment to strong and shared leadership, along with an ongoing plan for potential leadership change (Chambers et al., 2015; Mason et al., 2013), were deemed critical to a partnership’s sustainability. As important were the leaders’ commitment to CBPR and the community’s view that the leadership was trustworthy and represented community interests (Mason et al., 2013; Tajik & Minkler, 2006). Cook et al. (2012) also noted that leadership support and recognition of the strategic value of research helped address health disparities affecting the communities involved in their CBPR partnerships.

Long-standing CBPR partnerships also exhibit a high level of flexibility and adaptability in partnership goals, roles, programs, and research (Baquet et al., 2013). Chino (2012), evaluating the Southwest American Indian Collaborative Network, attributed the partnership’s “complex adaptive system” (p. 237) to its success, noting that partnership projects were “flexible enough to take advantage of individual skills and collective assets and willing to shift gears in order to focus on issues appropriate to local Indian people” (p. 239). Likewise, Allen et al. (2013) noted that “partnerships that are sustained over multiple studies must adapt to meet the changing requirements of projects” (p. 271). Hence, flexible CBPR partnerships were identified as being better able to address community research needs, the needs of its partners, and the realities of changing environments (Johnson-Shelton, Moreno-Black, Evers, & Zwick, 2015; Tajik & Minkler, 2006).

How partnerships communicate internally and externally also influences partnership behavior and ability to respond quickly to changing community needs. For example, analyzing their 5-year partnership, Goold et al. (2016) viewed face-to-face meetings as essential for ongoing relationship building and the use of webinars as effective for idea sharing and decision making. Others noted that effective communication entailed a high quality of shared information and high levels of participation, made possible through regular meetings, involvement of partners in all aspects of the research process, and bidirectional communication (Baquet et al., 2013; Pivik & Goelman, 2011).

Partnership Processes. Three indicators of CBPR partnership success relate to partnership processes. First, many partnerships identified the need for clear and explicit guidelines for dealing with issues such as conflict resolution, communication, and decision making. These included memorandums of understanding or other forms of partnership agreements to establish understanding and expectations of ways to manage issues over time (Hicks et al., 2012; Pivik & Goelman, 2011).

A second indicator was the existence of structures to support partnership processes, such as adequate staff, budget, and expertise to nurture, coordinate, and facilitate partnership processes and sustainability (Goold et al., 2016; Johnson et al., 2009). Finally, mandatory evaluations, whether conducted annually or at other regularly determined intervals, provided the means to assess participatory processes, continuously strengthen the partnership, and give voice and power to individual partners (Arroyo-Johnson et al., 2015; Baquet et al., 2013; Corbie-Smith et al., 2015). “Assessing the partnership as the relationship grows,” noted Morales et al. (2016) “can identify what works well and where improvements can be made . . . it is also useful for deeper discussion of the partnership and the research goals” (p. 181).

Partnership Resources. There was one major reported indicator of how successful long-standing CBPR partnerships manage personnel and physical resources. Whether monetary or nonmonetary (e.g., technical assistance, marketing, program evaluation), the allocation of partnership resources to and across partners in a shared and fair manner was identified as fostering partnership empowerment, trust, and sustainability (Baquet, 2012; Baquet et al., 2013; Brakefield-Caldwell et al., 2015); acknowledged the needs, preferences, and values of all affected by allocation decisions (Goold et al., 2016); and increased power sharing throughout the partnership (Malone et al., 2013).

Partnership Capacity. The partnership’s ability to achieve long-term success was in part indicated by the increased capacity for research at individual, partnership, and community levels (Corbie-Smith et al., 2015). Capacity-building activities and processes tailored to academic and community partners’ specific experiences and needs that involved mutual

learning and that addressed inequities between partners were viewed as particularly powerful (Baquet et al., 2013; Chino, 2012; Goold et al., 2016; Mason et al., 2013), especially when they resulted in transferable skills that helped improve understanding of the critical role data and research play in community education, policy advocacy, and other interventions (Cook et al., 2012; Johnson-Shelton et al., 2015).

Partnership Outcomes Domain

Long-standing CBPR partnerships reported six outcome indicators that extended beyond the conduct of and findings from their research alone: movement of the partnership's research to system and policy change; development of pride and ownership in the partnership's work; transfer of knowledge from the partnership to the community; clear, concrete, and sustainable community benefits; increased power sharing in the partnership; and the partnership's continued willingness and ability to conduct CBPR.

Several authors noted that moving the partnership's research to the implementation of new policies improved health services and outcomes (Arroyo-Johnson et al., 2015; Jagosh et al., 2015). Allen et al. (2013) viewed their partnership's movement of research to system and policy change as both a goal and an outcome, noting that "partnerships in later life should identify ways to institutionalize learning through community policy and systematic change" (p. 278). A second key outcome was that members of the partnership develop pride and ownership in the partnership and a commitment to its ongoing success and the long-term benefits it provides to the community (Hicks et al., 2012; Morales et al., 2016; Moreno et al., 2009). The transfer of knowledge from partnership to community indicated that partnership work met community needs. For example, tribal communities in a partnership focused on cancer prevention were able to adapt mainstream cancer information to the needs of tribal members through access to information, resources, and support that were developed with the partnership (Chino, 2012). Outcomes from research that emanates from successful partnerships thus provide the community with clear, concrete, and sustainable benefits (Hicks et al., 2012; Malone et al., 2013) that address complex problems in that community.

Two final outcomes of successful long-standing CBPR partnerships include increased power sharing and the partnership's continued willingness and ability to conduct CBPR, while distinct outcomes relate to both earlier discussions of attention to power imbalances and partnerships' operations around CBPR principles, which essentially are predictors for achieving these outcomes. Hence, a partnership cannot increase power sharing without partner awareness, consciousness, and attention to power asymmetries (Malone et al., 2013). Furthermore, partnerships that continue to conduct CBPR likely demonstrate that partners in the partnership are in an environment that fosters mutual respect, trust, and shared decision making (Johnson et al., 2009; Malone et al., 2013).

Discussion

Findings from this scoping review build on previous literature to better understand how long-standing CBPR partnerships define and measure indicators of success. Most of the CBPR partnerships in our review reported findings from self-evaluations to determine how and why they performed as they did. Thus, they presented evidence based on partnership-specific data collection methods, such as partner interviews, partnership minutes, and/or partnership survey questionnaires to determine their partnership's process, progress, and outcomes.

Evident in our analysis is that success in CBPR partnerships is a multidimensional construct that goes beyond outcomes alone. Rather it includes some combination of characteristics of partners, relationships among/between partners, partnership characteristics, processes, resources and capacity, along with partnership outcomes. For example, our findings suggest that successful CBPR partnerships take time to build the infrastructure, relationships, and capacity needed to attend to partnership goals and to evaluate ongoing process and progress across partner, partnership, and outcome dimensions.

While we identified 28 indicators across three key domains and seven subdomains that provide a collective of important contributors to success in long-standing CBPR partnerships, the diversity of partnerships in our sample by size, longevity, location, partner mix, and research emphasis limit our ability to make comparisons or generalize across partnerships as to which indicators are more predictive of success, whether certain partnerships have achieved more of the "right" ingredients leading to success over others, or how these domains and indicators interrelate in influencing CBPR partnership success. Moreover, we were unable to ascertain major differences in what influenced partnership success between the 10 partnerships in the 4- to 5-year range of longevity and the 16 with more than 6 years of long-standing partnership. Relying on journal databases further limit the representation of studies and the overall perspective of what constitutes partnership success. For example, as noted earlier, the lead authors of most of the articles were written by academic partners in academic journals even if they included community authors. Thus, it was unclear if results from partnership evaluations represented the viewpoints of all the partners or if there were similarities or differences in perspectives between academic and community partners. Perspectives from predominantly community partners may yield different indicators of success.

Implications and Future Directions for Practice

Findings from this review, in combination with results from key informant interviews with community and academic partners in long-standing CBPR partnerships and ongoing

advisement from a national panel of community and academic CBPR content experts, will aid in the development of a validated instrument to measure crosscutting indicators that contribute to CBPR partnership success, allow CBPR partnerships to measure their performance over time, and adjust where necessary to improve their sustainability and effectiveness. Evaluating all members of the partnership will provide a nuanced assessment of partnership success and allow long-standing CBPR partnerships to evaluate their work toward achieving health equity, provide a reliable tool for CBPR partnerships at all stages of development aiming to achieve long-term success, and further the science and practice of CBPR.

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