Journal of Community Engagement and Higher Education

Volume 8 | Issue 3 Article 4

2016

Community-Based Participatory Research on Urban Parks and Health DispariƟes: PerspecƟves from an Urban Planning Researcher

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ABSTRACT

As part of the University of Minnesota Community-engaged Scholars Program, I undertook a Community-Based Participatory Research (CBPR) project evaluating the potential of urban parks to improve health outcomes in disadvantaged communities. This paper describes my CBPR rookie experiences and discusses challenges in the CBPR process. By reflecting on my missteps, I offer critical insights and recommendations. Urban Planning researchers interested in applying the CBPR approach are recommended to commit to the "muddling through" process, seek institutional support, engage both government agencies and community advocates, and acquire long-range and flexible funding.

Keywords: urban planning, community engagement, park use, health, equity

Health disparities, defined as health differences that are closely linked with social, economic, and/or environmental disadvantage, have been widely recognized as an issue of social injustice (Braveman, 2006). People with health disadvantage often live in segregated neighborhoods that suffer under-investment in infrastructure and amenities (Sallis et al., 2009; Srinivasan et al., 2003; Talen, 2012). In a special 2008 report on health equity, the World Health Organization (WHO) recommended placing urban planning and neighborhood development at the heart of addressing health equity (WHO, 2008). By modifying the environmental features in places people live and recreate, urban planners can be a powerful force in reducing avoidable health disparities. As an urban planning researcher who develops built environment solutions for societal problems, I am particularly interested in the potential of urban parks in addressing health disparities. This interest is based on a significant body of empirical evidence.

First, park users are healthier than non-park users on a number of measures. Parks provide infrastructure for a wide range of physical activity, as well as offer restorative natural settings and social interaction opportunities that reduce stress and promote well-being (Bedimo-Rung et al., 2005; Fan et al., 2011; Ho et al., 2003; Maller et al., 2009; Ulrich et al., 1991). Second, parks are underused in lower income minority-dominant communities (Byrne & Wolch, 2009; Giles-Corti & Donovan, 2002; Wolch et al., 2005). Local parks and recreation services, which provide free or low-cost recreational facilities and programs at the community level, could be an important environmental factor that can reduce health disadvantages among lower income populations (Tester & Baker, 2009). Third, residential segregation persists across U.S. cities and regions (Massey et al., 1994; Sampson & Morenoff, 1997). Although res-

idential segregation is part of the problem that has led to the unevenly distributed resources in space, it points to the particular importance of spatially targeted health-promoting strategies for eliminating disparities (Abercrombie et al., 2008). Parks are often a community's "living room," and therefore may be a promising place to penetrate for community-wide behavior changes in poor, under-resourced communities.

Urban parks and health disparities are local issues that exist within the context of people's lives. In this research area, the traditional research approaches, which place top priority on scientific rigor, may have limited social and cultural validity. In contrast, a Community-Based Participatory Research (CBPR) approach—a collaborative, partnership approach to research that equitably involves community stakeholders and researchers in all aspects of the research process (Cargo & Mercer, 2008; Cook, 2008; Kilbourne et al., 2006)—may enable researchers to conduct rigorous research and produce translatable results for improving neighborhood living conditions and human health in the community.

Motivated by the desire to conduct research that responds to community-defined needs and contributes to tangible community improvements, I undertook a CBPR research project between 2009 and 2013 focusing on understanding the potential of urban parks to address health disparities. Central to the project was a pilot park-use promotion program implemented in summer 2011 in three low-income, culturally diverse neighborhoods in Minneapolis, MN, as well as the baseline and follow-up resident surveys in the neighborhoods to examine demographic differences in park use patterns and effectiveness of the park-use promotion program. The project was sponsored by the Community-engaged Scholars Program at the Children, Youth, and Family Consortium, University of Minnesota (UMN) Extension. The 2009-2013 Scholars Program supported action-oriented, engaged, participatory, and community-based research on issues related to education and health disparities.

In the following sections, I first detail my fundamental beliefs in CBPR and how I became increasingly committed to CBPR as an urban planning researcher who develops built environment solutions for societal problems. I then introduce the context in which I undertook the CBPR project and discuss my community engagement experience as a CBPR rookie. Focusing on the challenges in the CBPR process stemming from my inexperience and misunderstanding of CBPR, I offer self-reflection and develop recommendations for urban planning researchers who are interested in applying the CBPR approach.

FUNDAMENTAL BELIEFS IN CBPR AS AN URBAN PLANNING RESEARCHER

Urban systems are complex and adaptive, comprising interacting spatial, social, and economic dimensions. My research focuses on improving understanding of socio-spatial dynamics in cities. Specifically, I study the influences of urban spatial transformations such as changes in land development patterns and transportation networks on social and economic processes. I observe, analyze, and document interactions between urban environments and human activities as well as the societal-level consequences of such interactions.

In my journey into research that uncovers interactions between the spatial dimensions and social systems in cities, I find myself increasingly committed to community-based research—research that responds to community-defined needs and contributes to tangible community improvements. I believe community-based research is essential to advance scholarship in urban plan-

ning. The urban planning discipline, from its birth, involves pragmatic actions to bring about community improvements and changes in status quo. It is not a discipline in which scholars create knowledge in well-controlled lab environments, but one in which knowledge is created in ever-changing urban systems formed by people, places, and activities.

More specifically, planners are supplied with a wide variety of tools (e.g., comprehensive plans, site plans, transportation and utility plans, public facility plans, and neighborhood revitalization plans) that enable them to promote desirable societal outcomes such as health equity by modifying the environmental features in places people live, work, and recreate (Corburn, 2005; Hood, 2005). As planning involves physical improvements to housing, parks, transit systems, pedestrian infrastructure, and urban design, urban planning research unavoidably involves issues of power, privilege, participation, community consent, and the role of research in social change. Urban planning itself can be defined as a reformist and change-oriented practice (Hall & Tewdwr-Jones, 2010; Ryan, 2011), and urban planning research is expected to "inform and assist planners in seeking positive change" with regard to social, economic, and environmental aspects of place-making (March, 2010).

With these fundamental beliefs, I was particularly excited when the Scholars Program formally introduced me to the CBPR approach. I understood that I have done community-based research, but not CBPR. CBPR is not only community-based (i.e., responding to community-defined needs and contributing to tangible community improvements) but also participatory. CBPR calls for an integration of researchers' theoretical and methodological expertise with nonacademic community members' real-world knowledge and experience to form a mutually reinforcing partnership (Cochran et al., 2008). It promotes research combined with practice, and aims for meaningful social change as well as coordinated collaborative efforts to democratize the knowledge production process (Minkler, 2005). Applying CBPR in my community-based research projects seems to be a natural and inevitable step forward.

THE URBAN PARKS AND HEALTH DISPARITIES PROJECT

Supported by the Scholars Program, I led a CBPR project that aimed to promote park use among residents in low-income, culturally diverse neighborhoods. The project was expected to mitigate health disadvantages faced by low-income race/ethnic minorities and specific immigrant communities in Minneapolis, MN. As mentioned earlier, the project included an intervention program that encouraged park use in selected neighborhoods as well as baseline and follow-up of neighborhood residents to examine demographic differences in park use patterns and effectiveness of the intervention program in promoting park use. The study was approved by the Human Subjects Institutional Review Board at the UMN.

Participating neighborhoods in Minneapolis included Harrison, Phillips, and Powderhorn Park. All three neighborhoods are racially and culturally diverse, and contain a substantially higher proportion of families below the poverty level, single-parent families, and minority families, as compared with the Minneapolis city average. In addition, the study neighborhoods had the following demographic attributes:

- All three neighborhoods have sizable African immigrant communities that are largely composed of Somali refugees who migrated directly from Kenyan refugee camps since Somalia's civil war erupted in 1991.
- Harrison has the largest Asian community among the neighborhoods. The Asian population is largely Hmong im-

migrants who were Lao Hmong war refugees in the late 1970s and their second generation.

- Phillips has one of the highest urban concentrations of American Indians not only in Minneapolis, but also in the nation. The neighborhood was the heart of the American Indian Movement—which began in Minneapolis and became a national force in the 1960s and 1970s.
- Powderhorn Park and Phillips both have large Hispanic communities composed predominantly of first-generation Mexican immigrants.

The intervention program consisted of randomly selecting half of the respondents who participated in the baseline survey, providing them better information about outdoor-recreation opportunities in their neighborhoods through newsletters, and employing incentive programs to encourage them to visit parks between the baseline and the follow-up surveys. The intervention program lasted for four months, between May and August 2011, and was implemented through hand delivery of monthly information packets to the selected homes.

The baseline survey was carried out in fall 2010, and the follow-up survey was implemented in fall 2011—right after the summer intervention program. All baseline and follow-up surveys were conducted in-person during home visits. The surveys asked residents about their general park-use patterns during warm and cold weather, as well as their specific park visits made in the past three days. The surveys also asked questions on perceived roles of parks, perceived barriers to park use, and perceived importance of various park facilities and recreation programs. Data from the baseline survey show significantly lower levels of park use, especially in cold weather, among African Americans, foreign-born residents, low-income residents, and working parents in single-parent families. Data from the post-intervention survey show positive evidence that the pilot park-use promotion program effectively changed residents' perceived information barriers of park use and increased residents' park use frequency. More detailed information on this project's design and findings is published elsewhere (Fan et al., 2012, 2013; Das et al., 2016).

Community Engagement Efforts

Admittedly, this project began as a community-based, traditional, urban planning research project rather than a CBPR project. The project was initiated by me—the researcher—rather than the community. Community engagement efforts began post-conceptualization by recruiting community partners who had strong interests in urban park improvements and health disparities. This is a case in which a traditional community-based urban planning research project gradually evolved into CBPR.

The project connected me with a wide range of community organizations. With successes and failures, I made community engagement efforts throughout the project, including the design, implementation, and dissemination phases. As shown in Figure 1, my first community engagement efforts were made in August 2009, a year before the baseline survey implementation and two months after I received funding. It took almost a year to build relationships with community stakeholders. Note that the initial funding, made available by the Scholars Program, lasted for four years, from June 2009 to June 2013. Unlike research funding made available on a project basis, which involves detailed budgeting by tasks, the funding was considered as a cash award to Scholars Program participants and could be used for discretionary purposes. The flexible nature of this funding allowed me to carry out community engagement efforts before the formation of a concrete re-

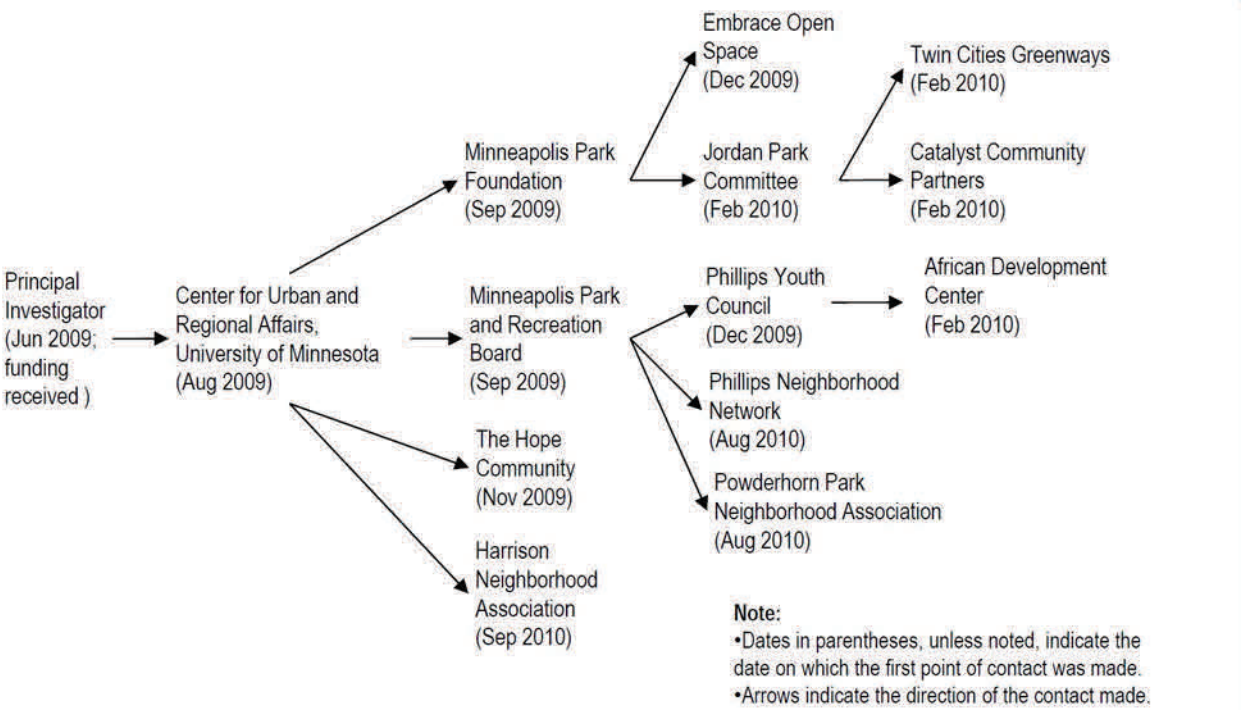

Figure 1. Initiation of community engagement contacts

search project idea.

A notable, and probably the most important partner in the project, was the Center for Urban and Regional Affairs (CURA) at UMN. Established in 1968, CURA has community engagement in its mission and deep roots in facilitating and supporting connections between University faculty and state and local governments, neighborhoods, and nonprofit organizations. As shown in Figure 1, CURA helped me make initial connections to a wide range of community members in Minneapolis, including:

- Minneapolis Park Foundation—a non-profit organization aiming to improve and sustain parks in the City of Minneapolis;
- Minneapolis Park and Recreation Board (MPRB)—a government agency responsible for maintaining and developing the Minneapolis park system;
- Hope Community—a non-profit organization aiming to provide affordable housing and foster neighborhood revitalization in the Phillips neighborhood; and
- Harrison Neighborhood Association—a non-profit organization aiming to promote the interest of all Harrison neighborhood residents.

Through the contacts at the organizations above, I further made contacts with:

- Embrace Open Space—a non-profit organization aiming to preserve and create urban green spaces in the metropolitan region;
- Jordan Park Committee—a voluntary committee that includes representatives from philanthropic foundations, local private development firms, and non-profits with the objective to create new urban parks in the Jordan neighborhood;
- Phillips Youth Council—a voluntary committee that includes high school students, park directors, and representatives from non-profits that aims to increase physical activity among youth in the Phillips neighborhood;
- Phillips Neighborhood Association and

Powderhorn Park Neighborhood Association—non-profit organizations that promote respectively the interest of Phillips neighborhood residents and Powderhorn Park residents;

- Twin Cities Greenways—a non-profit organization promoting the construction of greenway-quality trails to better connect the metropolitan area;
- Catalyst Community Partner—a non-profit organization revitalizing distressed North Minneapolis neighborhoods by renovating commercial properties; and
- African Development Center—a statewide non-profit organization guiding African immigrants and refugees in Minneapolis to economic prosperity.

It is worth noting that, even with CURA's help and support, not all community engagement contacts led to trusting relationships or fruitful outcomes. For example, my relationship with one of the organizations mentioned above ended with tensions, distrust, and irreconcilable bitterness. This was largely due to my inexperience in handling differences in working styles with the community partner and my misunderstanding of the partner's expectations. This partner expected a fully engaged researcher on the project, yet I had other academic responsibilities that prevented me from being wholly dedicated to the project. The partner also expected to be the lead contact for the project in a geographically defined area, yet I had made parallel connections with other non-profit organizations and neighborhood advocates in the area.

My connection with three additional organizations did not result in fruitful outcomes either. These community partners were initially interested in the project but later withdrew their participation due to the emergence of other competing initiatives. After roughly a year of community engagement efforts, I developed outstanding working relationships with most of the community partners listed above. The neighborhoods with which I have good relationships (i.e., Harrison, Phillips, and Powderhorn Park) later became the study neighborhoods for the project. The key community partners, including the Minneapolis Park and Recreation Board and the neighborhood association partners, were involved in all stages of the study through regular meetings.

Throughout the project, many of the community partners provided financial and in-kind support whenever there was a budget shortfall. The strong financial and in-kind contributions from community partners were critical to the project's success. Community partners provided expertise in communications and outreach and provided guidance on how to generate awareness about the study and boost survey participation. They provided translation and printing services for recruitment materials that enabled us to provide study-related information in languages that were dominant among the minority groups in the study neighborhoods (Somali, Spanish, and Hmong). For the survey process itself, a key community partner, MPRB, provided additional interviewers by hiring four part-time staff members from Youthline, their local youth program that works closely with teens to develop leadership skills and provide mentoring relationships through programs and activities at parks. The Youthline staff was a great addition to the surveyor team from the University as many Youthline staff belonged to and lived in the study neighborhoods.

LESSONS LEARNED

My experience as the principal investigator of this project offers insights into challenges and opportunities for urban planning researchers who are interested in using CBPR. First, I found that textbook learning

was insufficient for successfully designing and implementing a CBPR project. Many of the skills needed in community engagement, such as negotiation, conflict management, and long-term relationship maintenance, can only be learned by doing. Community engagement is subject to the generalizability paradox: Although the well-documented CBPR principles can be applied to various community settings, the applications do not guarantee the success of community engagement efforts. CBPR is often a process of "muddling through" past failures because no one could possibly import CBPR best practices free of contexts. The relevance and specificity of a researcher's community engagement efforts are often gradually achieved by getting to know specific communities of interest, and getting to know the communities means actual community engagement efforts upfront before planning CBPR projects.

Second, having institutional support for initiating community engagement contacts is crucial. The project introduced above would not have been successful without institutional support from CURA at UMN. CURA was able to lend its already established trust with the community organizations and the mutual respect it had built between researchers and community partners. In addition, not all communities are ready for CBPR. CURA's existing knowledge about local communities and key players in these communities was crucial for identifying partners ready to offer a vision and interested in jointly investigating community health issues. CURA's involvement saved me significant time and effort identifying potential partners and building relationships.

Third, engagement of both government agencies and non-profit community organizations is especially important for urban planning-related CBPR. CBPR related to urban planning often involves place-based interventions that either change the built environment itself or people's perceptions and use of the built environment. Unlike family-based or individual-based interventions, place-based interventions often require public decision-making including infrastructure projects, equipment purchases, and/or public service programs. Without access to community resources and governmental decision-making, urban planning researchers are likely to have difficulties in promoting place-based interventions and conducting CBPR.

Finally, long-range, flexible funding support was instrumental to the success of this project. Even with institutional support, the initiation, design, and implementation of the project took two-and-a-half years. The design, scope, direction, and progress of CBPR projects are jointly determined by researchers and community partners, and are confounded by the changing community contexts. It is practically impossible for researchers to develop a precise budget before CBPR projects begin or have full control of project expenditures after launch. Traditional activity-oriented budget modeling may not work for CBPR projects, especially for urban planning-related CBPR projects that involve place-based interventions.

CONCLUSIONS

This self-case study suggests that urban planning-related CBPR may require 1) a commitment to "muddling through" the process, 2) readily available institutional support, 3) engagement of both government decision-makers and non-profit community advocates, and 4) long-range and flexible funding support that allows discretionary funding use. The importance of engaging government decision-makers and having flexible funding support coincide with existing recommendations regarding CBPR in general. Both Cook (2008) and Cargo and

Mercer (2008) suggest that researchers armed with access to government decision-making and yet unencumbered by the requirements made by funding agencies may be in a unique position to conduct truly participatory research that integrates research and action. Besides these consistent findings within the general CBPR literature, this self-case study provides additional caveats for urban planning researchers who are interested in conducting CBPR projects. CBPR researchers in the urban planning field are recommended to temper their expectations and effectively manage community engagement failure when it occurs. They are also encouraged to acquire institutional support as early as possible when initiating community engagement efforts.

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This project was funded through the Community-engaged Scholars Program of the University of Minnesota Children, Youth, and Family Consortium (CYFC). The author thanks Kris Nelson (Founding Director of the community-based research program at the Center for Urban and Regional Affairs, UMN) for his invaluable help in introducing the author to various community organizations. The author thanks Catherine Jordan (CYFC Director), and CYFC Scholars Lauren Martin, Mary Hearst, and Naomi Duke for their constructive feedback on the CBPR project described in this article.

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