Redesigning a Neighborhood Park to Increase Physical Activity: A Community-Based Participatory Approach

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Background: Community collaboration and active engagement of neighborhood residents in park redesign are promising strategies for creating public spaces that support physical activity. Objective: This research brief describes the process of community engagement and discusses outcomes of a participatory park redesign project. Methods: A community design charrette was held in collaboration with community organizations. Environmental audits of park features and amenities were completed before and after implementation of park redesign. A guided discussion with stakeholders following the park redesign was conducted to discuss challenges, successes, and next steps. Results: Although level of activity among youth observed in the post implementation observations did not differ, there were a greater variety of activities observed among both children and adolescents. Furthermore, the goals of the project related to capacity building and meeting residents’ needs were accomplished. Conclusions: Active participation of residents in a neighborhood park redesign requires time, commitment, and communication from a variety of stakeholders. However, the creation of a park that supports a variety of activity types, and builds community capacity, supports the need for involving stakeholders in redesigning neighborhood parks.

KEY WORDS: built environment, community-based practice, neighborhood parks, partnerships, physical activity

Modifying the built environment to support physical activity behavior and engaging communities in decision making are essential in creating healthy, physically active communities. Neighborhood parks are one element of the built environment that can support physical activity. Research suggests that parks that are close to residents or have scheduled activities and a variety of features are associated with increased physical activity. However, engaging community residents, especially in culturally and socioeconomically diverse communities, is important in designing neighborhood parks that meet a variety of physical activity and recreational needs.

This brief report describes the outcomes of one community’s approach to increasing physical activity among children by redesigning a neighborhood park through a community-based participatory process. Active engagement of community stakeholders in the park redesign process was implemented to cocreate a park space that meets identified needs, builds on existing strengths in the community, supports community participation in...
civil processes, and strengthens relationships among residents.

**Community Partnership**

_Creciendo en Salud_ (Growing in Health) is 1 of 49 community partnerships that participated in the national Healthy Kids, Healthy Communities program of the Robert Wood Johnson Foundation (www.healthykidshealthycommunities.org). Through active collaboration of partners and mobilization of local communities, the partnership has worked together since 2010 to support policy and environmental changes for physical activity and healthy eating in Benton County. The partnership consists of local governmental agencies (county health department and city parks and recreation department), a local housing and neighborhood development organization, grass roots organizations, a neighborhood association and neighborhood residents.

**Park Setting**

The park is a multi-feature, publicly accessible park not adjacent to schools. It covers approximately two acres of land and is located within a neighborhood of 7,045 residents. Latinos represent approximately 10.4 percent of the population, 58.8 percent of all households report participating in the Supplemental Nutrition Assistance Program and 29.4 percent earn incomes below the federal poverty line. Several multi-family affordable housing units are located within walking distance of the park.

**Methods**

To evaluate outcomes of the park redesign, the community partnership collaborated with the Healthy Kids, Healthy Communities evaluation team, Transtria LLC, to conduct an environmental audit of park features and a direct observation of activity in the park and play spaces. An Evaluation Officer from Transtria LLC trained 6 representatives of the _Creciendo en Salud_ community partnership on data collection in a 4-hour workshop held in a local park. Preintervention data were collected between August 27 and September 1, 2012. Postintervention observations were originally planned for August 2013; however, delays in park feature installation pushed data collection to late spring, March 15 and March 21, 2014. Preintervention observations were collected on 3 days, 42 to 56 minutes per day. Postintervention observations were conducted on 3 days for 137 to 260 minutes per day. A timeline of project activities is provided in the Figure.

**Environmental audit of park features**

The parks and play spaces environmental audit tool was used to assess the presence of various features located within and around the park as well as the quality or condition of the area. The tool was adapted from the Physical Activity Resource Assessment and the BTG-COMP Park Observation Form 2012. The tool captures information on the characteristics of the park environment that support or hinder utilization. The partnership coordinator and community residents completed both pre- and postintervention audits.

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*FIGURE*  Creciendo en Salud Neighborhood Park Redesign Timeline, 2011-2014
Parks and play spaces direct observation

Physical activity outcomes at the park were documented with the parks and play spaces direct observation tool. This tool was adapted from the System for Observing Play and Leisure Activity and System for Observing Play and Recreation in Communities tools by Transtria LLC to facilitate ease of data collection. During each systematic scan of target areas, a representative from the community partnership completed the observation tool by tallying children in the designated area by age group (ie, children 3-10 years; adolescent 11-17 years; adult 18+ years), type of activity (ie, walking, running, biking, soccer, no identifiable activity), and activity level (ie, sedentary, moderate, or very active behaviors). Information on gender and race/ethnicity was not collected with the adapted tool. Each observation represents an individual’s activity level in the area at the specified time.

Community engagement and community design charrette

A neighborhood block party organized by the partnership was held at the start of the project to announce the receipt of funding for the park redesign and recruit residents to participate in the process. A design charrette was hosted 1 month later to discuss the current park facility and identify key features for the reconstructed park. Simultaneous interpretation in Spanish was provided. The city park planner facilitated the 2-hour meeting with the assistance of the partnership. During the charrette, residents (N = 30) drew pictures of desired park features. These pictures were used to discuss the positive attributes of the current park and propose changes that would support physical activity. The city parks planner subsequently integrated the information collected into the park redesign plan. This plan was shared at a neighborhood association meeting and at a local soccer tournament.

Stakeholder-guided discussion

The partnership coordinator and city parks planner facilitated a guided discussion (N = 10) to debrief park redesign outcomes and partnership efforts. Topics discussed during the 90-minute meeting included (1) rationale for park features that were not implemented, (2) successes and challenges of the park redesign project, (3) benefits of community participation, and (4) next steps in the development of the neighborhood park.

Findings

Park redesign and installed features

Residents desired a park that offered activities for youth of varying ages. Identified redesign features included multiple areas for climbing, hiding and playing, a sandbox, sand volleyball court, soccer goals, and a hard surface path around the perimeter for riding bicycles. New park features installed as a result of the project include hard surface path around play equipment, tree house, slides; monkey bars/climbing bars; natural climbing features (logs/rocks); and plastic dinosaur skeleton climber. Although many of the features and amenities desired by the community residents were implemented, the cost of materials limited the scope of the park redesign.

Activity among youth observed in park

During the postobservation, youth (children and adolescents) were observed in 7 additional activity types compared to the preobservation period. During the postobservation period, observers also noted children playing on equipment, climbing on monkey bars and slides and adolescents, adults, and children engaged in yard clean up. The installation of the new features was primarily supportive of younger children activities. Adolescents were observed playing basketball on a preexisting basketball court and assisting in an organized park cleanup activity that coincided with postintervention park observations. See the Table.

Rate of activity among youth observed in park

Findings from the direct observation of physical activity suggest that activity level among youth remained the same. Half of all activities observed among children (3-11 years) were moderately active (53% and 54%) during both time periods. Although the level of very active activities among children increased in the postobservation period from 11% to 22%, this difference was not statistically significant, possibly due to a limited number of observations (n = 370) and seasonality (ie, preobservations conducted in August and postobservations conducted in March). Approximately, 60% of the observed activities were moderately active among adolescents following the park redesign compared to 54% prior to park redesign. Very active behaviors were observed more frequently in the postintervention observation period (21.9%) compared to the preobservation period (11%), but again these results were not statistically significant possibly due to few observations (n = 157).
### TABLE 1 Presence or Absence of Activity Types at Neighborhood Park Before and After Park Redesign Project

<table>
<thead>
<tr>
<th>Activity</th>
<th>Before Observation</th>
<th>After Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Children</td>
<td>Adolescents</td>
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<tr>
<td>No identifiable activity</td>
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<tr>
<td>Basketball</td>
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<tr>
<td>Football</td>
<td></td>
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<tr>
<td>Soccer</td>
<td></td>
<td></td>
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<tr>
<td>Other playground games</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walking</td>
<td></td>
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<tr>
<td>Jogging/Running</td>
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<td></td>
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<tr>
<td>None of the above</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biking</td>
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</tbody>
</table>

*Presence (+) and Absence (−).*

**Outcomes of stakeholder participation in park redesign**

Meeting the identified needs of the community, building on existing community strengths, increasing civic engagement, and strengthening community relationships were major goals of the process. Information shared by the stakeholders suggested that the project achieved many of these outcomes. The park has become a focal point of the community hosting a variety of programmed activities as well as informal play dates among families. Relationships among neighbors have developed at the park as well as during the redesign process. The neighborhood association and nonprofits participating in the project report a greater understanding of civic processes and continue to support advocacy efforts in other areas.

Stakeholders identified time and communication among those most common challenges experienced. Community agencies and neighbors alike were unsure of the progress and the need for additional funding, and volunteers, among other things. Competing priorities at the city park and recreation department and the part-time status of the park planner appeared to influence the time delays experienced in the installation of features.

**Lessons Learned**

Initial findings suggest that the new play and climbing features support a variety of types of activity for children. However, additional development of the park should focus on installation of features that support very active behaviors (soccer goals and sand volleyball court) and regular programmed activity for youth. Additional data collection on types of activity and activity level by race/ethnicity and gender will assist in evaluating the extent to which the park supports physical activity among all residents. Furthermore, observations throughout the year will identify opportunities to support physical activity regardless of weather.

A valuable lesson learned for supporting community participation is the importance of co-defining at the start of the project (1) public participation, (2) the redesign process, and (3) any potential competing demands and priorities, and (4) a communication plan that respects stakeholders’ culture. These steps would have improved the participatory process by clarifying the ways in which the public would be involved, creating common knowledge of the park redesign process and facilitating dialogue. Working across sectors, even in a small community, can be challenging. However, as this project shows, an ecological approach to create a neighborhood resource that is co-built with the community can obtain tangible results.

**REFERENCES**


