
Child's Play: Community Solutions for Increasing Youth Physical Activity in Distinct Safety Contexts

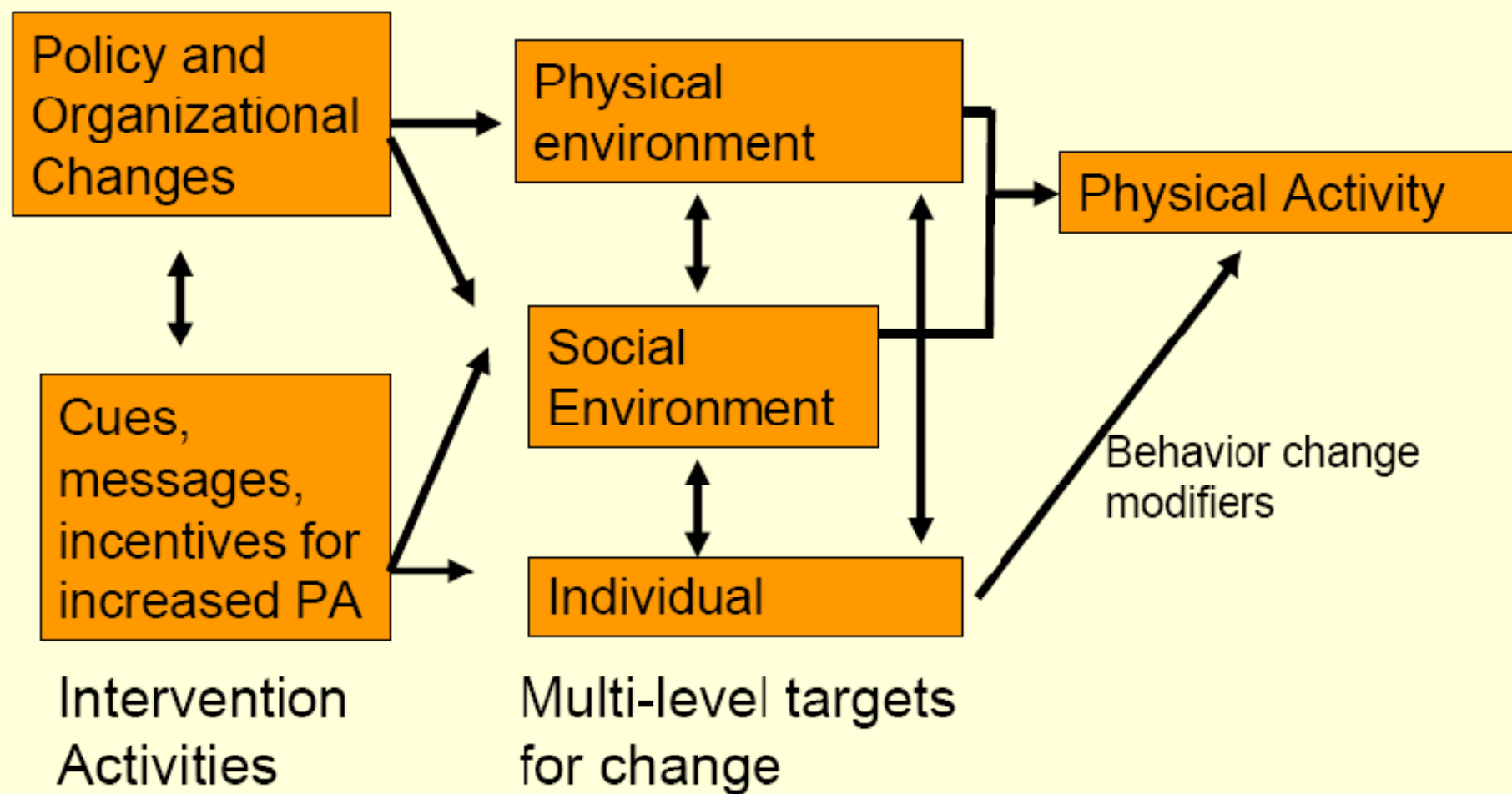
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Background- The Challenge

- Healthy weights among children is a top challenge for Healthy People 2010.
 - Overweight rates among children 6-11 years doubled to 19%; rates of overweight teens 12-19 tripled to 17%. Overweight rates are highest among African American and Latino children.
 - Only 36% of children in the U.S. achieve the recommended 1 hour/day of exercise.
 - Obesity-related annual hospital costs have tripled over the last two decades.
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Figure 1: Social Ecological Framework for Physical Activity Interventions



Background- IOM Charge

- Communities “should ensure that every neighborhood has safe and well-designed recreational facilities and other places for physical activity for children and youth.”
 - Yet literature linking safety and physical activity is mixed (CDC 1999, Romero et al. 2001, Burdette and Whitaker 2005, Weir, Etelson, Brand 2006, Farley et al 2007, McDonald 2008,).
 - What do communities say is needed to increase physical activity?
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Research Question and Specific Aims

- How do solutions for increasing physical activity among youth vary within and between distinct safety contexts?
 - Aim 1: Define homogenous block group clusters by known physical and social correlates of safety.
 - Aim 2: Within a community-based participatory research context, use concept mapping methodologies to examine how solutions for increasing pediatric physical activity vary within and between different safety contexts.
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Study Hypotheses

- People in unsafe environments will rate solutions related to safety as more important or relevant than people who are in safe environments.
 - Ratings of solutions suggested by different ethnic/racial subgroups within safety environments will be more similar than the ratings of solutions offered between different safety environments.
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AIM 1:

METHODS and RESULTS

Define homogenous block group clusters by known physical and social correlates of safety.

Parent Study



- A National Heart, Lung and Blood Institute study formed Taking Neighborhood Health to Heart, a Community Based Participatory Research study headed by Dr. Main.
- That study spanned five diverse communities in Denver, CO, including Stapleton the largest redevelopment in the US designed for active living.

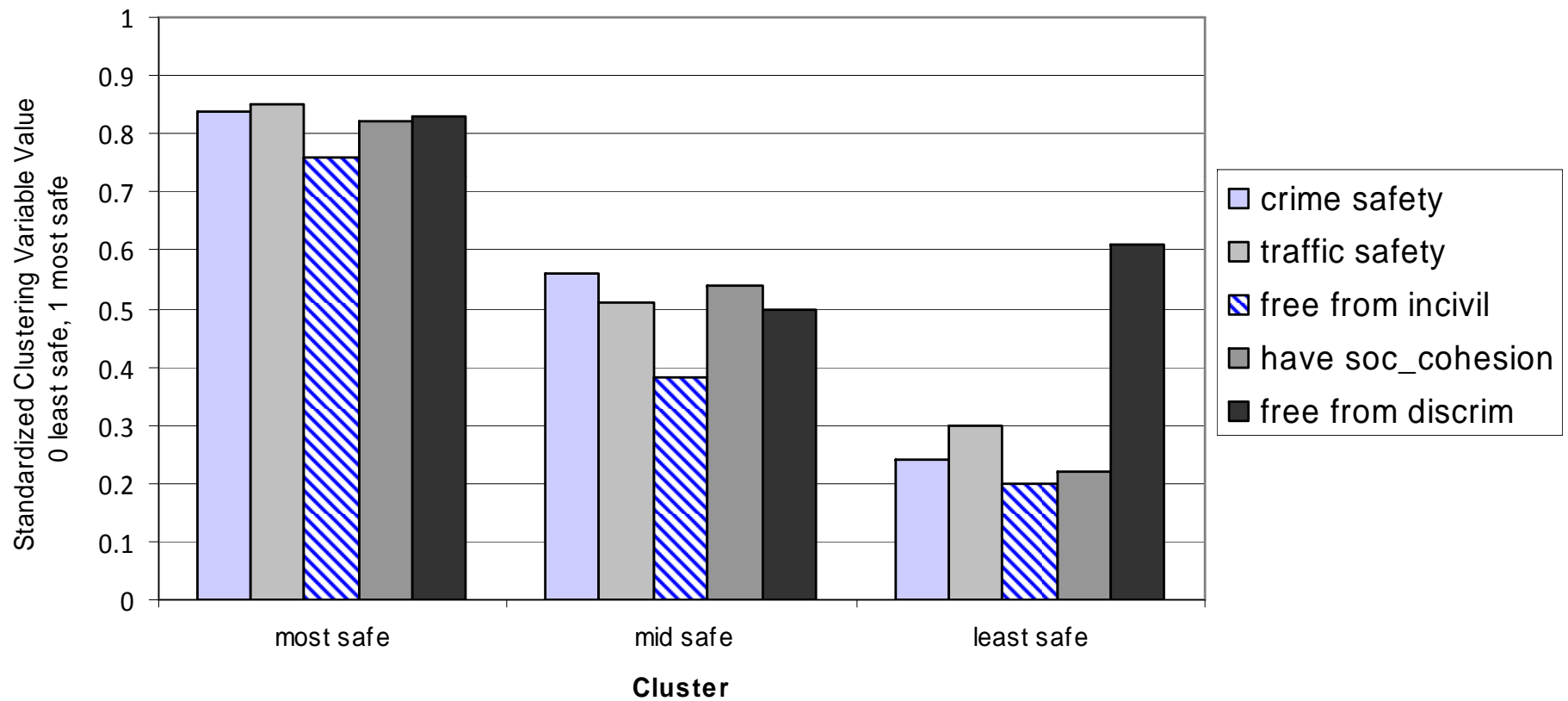
Measures and Analyses



- Parent study provided secondary data
 - Household surveys and block audits with validated measures
 - Cluster analysis using data from 57 block groups
 - Three cluster solution
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Aim 1 Cluster Results

Three Cluster Solution



AIM 2: METHODS & RESULTS




Within a community-based participatory research context, use concept mapping methodologies to examine how solutions for increasing pediatric physical activity vary within and between different safety contexts.

Concept Mapping- Definition

“Concept mapping is a method that can help communities develop locally relevant interventions...it obtains information regarding group level definitions and perceptions .. and it obtains information on social and structural influences on outcomes.”

Concept Mapping Process

- Train and hire community facilitators
 - Select a focus prompt:
“What changes would you like to see to increase physical activity among 10-14 year old youth?”
 - Recruit participants from each safety context
 - Brainstorm solutions 
 - Sort solutions
 - Rate solutions
 - Provide results back to the community
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Community-Based Participatory Research

- CBPR is participatory, cooperative, engaging community members and researchers in a co-learning process contributing to both equally
 - Interventions benefit from engaging target communities who can take ownership of research results.
 - 25 residents have participated in the group ranging in age 8-88 years; English and Spanish speaking residents at each meeting.
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CBPR Accomplishments to Date

- Monthly meetings since March 2009
- Youth named the group; created a vision and art work; became facilitators; learning advocacy skills
- Six community members facilitate concept mapping groups
- Ten brainstorming sessions conducted to date
- Participants who are not facilitating concept mapping groups are learning advocacy skills



Community Partner Thoughts

- “I’m very proud of what is going on.”
- “..the whole purpose is to find something that they (youth) want so that they can become more physically active and if they put their ideals into it and they create it then they’ll participate in it.”
- “I love to be involved with children period- if there is anything I can do or be a mentor to them I feel very blessed.”



More Community Thoughts

- “In the past when I did attend meetings it wasn’t the community’s word it was the city’s word...but they don’t live in this neighborhood so they don’t know what the neighborhood needs.”
 - “I think the program is great because it allows community members, people who may never show up at other places or other meetings to voice their opinions about what they want for their kids or the youth in the community.”
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Challenges and Limitations

- Getting and analyzing the secondary data
 - Keeping a diverse community group engaged
 - Recruitment for the sorting and rating phase may be difficult
 - Data are not generalizable, but processes and results will inform the field
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Next Steps

- Complete concept mapping data collection and analyses.
 - Future research aims to study how youth advocacy models developed for tobacco control can be applied to policy change models addressing active living.
 - Ultimately, research will describe how CBPR processes produce changes and whether these changes impact youth physical activity.
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