Active Where?: Multi-Region Formative Research to Understand Children's Physical Activity Environments

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Background

- Most environment-behavior research has focused on adults
- ‘Traditional’ urban form variables (e.g. street connectivity) may not influence children’s activity
  - Children may play in cul de sacs
- Children do different activities, in different locations, and may have different perceptions of the environment
- Safety may be more important determinant of children’s behavior
- Previous studies have used focus groups and picture diaries to assess children’s perceptions of environment related to physical activity

Aims

- To find out where children are active
- What environments support and discourage recreational and utilitarian youth activity
- In 5-11 year olds and 12-17 year olds and their parents
- Method includes in situ interviews to prompt recall and discussion
- Develop reliable youth neighborhood and school environment survey

Methods

- Recruitment from selected neighborhoods in Cincinnati and San Diego
  - Sampling in high/low walkability and high/low income neighborhoods
  - N=8 parent/adolescent pairs
  - N=8 parent/child pairs
  - Incentives for participation and travel reimbursement
- Semi-structured telephone interview with parent
- Semi-structured in-person interview with parent and youth in various potential activity locations
  - Home, yard, local neighborhood
  - Parks
  - Recreation facilities, schools
  - Shopping centers

Interviews

- Phone
  - Where does your child go to be active?
    - Place, why, how get there
  - Where does your child walk or bike to
    - Place, why
  - Where do you not let your child play?
  - Check places from local map prompt
  - Rules
    - Activities, places, on route
  - Planned itinerary for in situ interview
- In situ interview with parents and youth
  - What do you like about this place?
  - What makes this place good for activity?
  - Is there anything you don't like about this place?
  - What would make it even better?

Analysis

- Responses were categorized into themes
  - Equipment
  - Fun/attractiveness
  - Convenience/access
  - Safety
  - Social/other
- Interview notes were typed into a response table in Word
- Sub themes were identified by two researchers
- The sub themes were considered as a whole then ordered by age and neighborhood

Results: Convenience

- Distance
- Sidewalks to places, paths to skate or bike on
- Amenities:
  - parking
  - benches for parents
  - bathroom, water fountain
- Scheduling:
  - friends
  - parents
  - homework
- Costs
- Weather

Results: Safety

- Supervision by adult, in sight
- Traffic
  - Safe in cul de sac
  - Bike paths, sidewalks too close to road
- Familiarity with place and people
- Strangers, abduction
- Crime, drugs
- Fencing
- Light
- Safety in numbers

Results: Attractive/fun

- Large grassy areas
- Equipment: well maintained
- Choice:
  - multiple activities
  - equipment
  - age appropriate
  - fun
- Aesthetics
  - Scenery
  - Quiet
- Shade

Results: Other/Social

- Age, activity decrease
- Driving
  - Not active commuting
  - To places where could be active
  - License less active
- Sport
- Friends
  - House
  - To play with
- Family
- Dog
- Staff at recreation centers
- Image

Results: Rules

- Inform parents
  - Where and who with
  - Take cell phone, check in
- Distance, street/sight boundaries
- Daylight
- Safety in numbers
- Time restrictions
- Adult supervision
- Traffic safety
- Academic priorities
- Helmet

Age and neighborhood differences

- Age
  - Choice of activities important for younger children
  - Friends important to older children
  - Older children must stay in contact
  - Younger children traffic safety concerns
- Low income
  - equipment quality
  - supervision
- High income
  - social
  - keep in contact
- Low walk
  - traffic concerns

New survey items

- Play locations
- Play equipment
- Barriers to active commuting
  - Parks
  - Shops, restaurants
  - School
    - Cool factor
- Rules
- Neighborhood safety
- Electronic equipment
- School food environment

Reliability and validity study

- 3 cities, walkability/income variability
- Recruitment by random mailing and selected locations
- Parents of children
- Adolescent and parent pairs
  - Compare perceptions
    - Neighborhood
    - Rules
- Test retest reliability
  - N=86 parents of children
  - N=134 adolescent-parent pairs
- Criterion validity (N=113 children, N=180 adolescents)
  - BMI
  - PA, sedentary
  - Fruit and vegetable intake

Conclusions

- Useful formative research method
  - Could be applied to food environments, seniors etc
- Similar themes to previous focus groups, but additional information
  - Rules, social factors, specificity to setting
- Next steps
  - Complete reliability analyses
  - Use in NIEHS funded study
    - Neighborhood Impact in Kids (NIK)
    - Saelens PI
  - Make survey widely available
    - (jkerr@projects.sdsu.edu)
  - Many enquiries for survey through IPEN
  - Already adapted and being tested in UK