



# A social network analysis approach to group and individual perceptions of child physical activity

## The Issue

- Child physical activity is influenced by their friendships
- Perception of other children's health behaviors can be influential in changing one's own behaviors
- Previous work has looked at how engaging popular peers in positive health behaviors (increased physical activity) may impact other children's physical activity with limited results



**This study investigated how a child's perception of physical activity is related to the social structure or social network of a summer care program (Boys & Girls Club)**

## Results

- Children perceived themselves to be more physically active if they perceived their friends were more physically active
- Children who were central in the network and reported more confidence in their physical abilities were perceived as more active by their peers
- Girls had significantly greater differences between how much they reported they were active and how much their friends thought they were active compared to boys



## Implications

**Perception of other children's physical activity may be very important for a child's own physical activity**



- Social networks provide a structure in understanding physical activity perceptions and social norms of activity
- Using social network analysis combined with perceptions of others may improve selection of change agents or children chosen to help spread positive behaviors
- The opinion leaders or popular children within networks may already be perceived as being more active due to their network position
- Choosing and recruiting children that are influential but are not be perceived as active may foster the most change

## Methodology

- Children (ages 8-12 years old) from two summer care programs were surveyed
- Children reported their physical activity, skill competency as well as up to five people they interacted with the most while at the program and how active they thought each of these people to be
- Multilevel modeling was used to analyze the data
- Full methods and data can be made available on request



**Article:** Tyler Prochnow, Megan S. Patterson, M. Renee Umstatt Meyer, A social network analysis approach to group and individual perceptions of child physical activity, Health Education Research, Volume 35, Issue 6, December 2020, Pages 564-573, <https://doi.org/10.1093/her/cyaa035>

**Authors:** Tyler Prochnow, Megan S. Patterson, M. Renee Umstatt Meyer

**Find out more at [tprochnow.com](http://tprochnow.com)**

