

Child play network influences on physical literacy in Mexican-heritage Colonias

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Social Network Analysis

- Understanding the connections between people and the social structure embedded in human nature
- Inherently different than traditional survey methods
- Connections > individual traits



Why use SNA in physical activity research?

- More involved than social support or co-participation
- Research suggests networks are important in adolescent PA
 - Social Selection
 - Social Influence
 - Homophily

Physical Literacy



“is the ability to move with competence and confidence in a wide variety of physical activities in multiple environments that benefit the healthy development of the whole person”

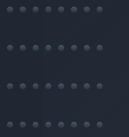


Positively associated with child physical activity



Setting / Population

- Mexican-heritage families in *colonias* on the Texas-Mexico Border
- Functionally Rural
- Low Socioeconomic Status



Study Focus

Understand associations between self-reported play networks and physical literacy among Mexican-heritage children in *colonias*

Methods

Mexican-heritage children in *colonias* on the Texas-Mexico border



Physical Literacy – CAPL

Self-Efficacy

Skill Competence



Social network – Who you actively played with most often in the last month

Limited to 5

Sex, Frequency of play, whether the person was active regularly



Linear Regression Analysis

Results - Sample

- 41 children
- Mean age=9.93 years old;
SD=1.01
- 48.8% Male



Results – Skill Competency

(R ² =.32)	β (p-value)
Sex	0.03 (.88)
Age	-0.26 (.13)
Sex Homophily	0.38 (.04)*
Frequency of play with network	1.27 (.03)*
Percent of network perceived as active	1.45 (.01)*

Results – Self-Efficacy

(R ² =.47)	β (p-value)
Sex	0.14 (.34)
Age	-0.18 (.21)
Sex Homophily	0.29 (.04)*
Network size	1.19 (.01)*
Percent of network perceived as active	1.40 (.01)*

Conclusions



Play network composition is associated with physical literacy



Increasing the connections between children may improve physical literacy



Targeted programs to implement cooperative skill building activities

Next Steps

Monitor measured
Physical Activity



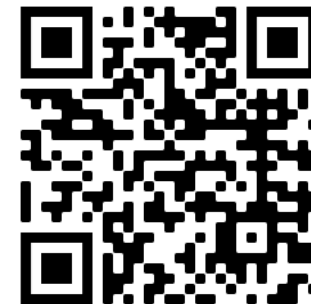
Family based
physical activity,
healthy eating, and
communication
program

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Presentation



Project

