

Associations between child play networks,  
sedentary time, and moderate-to-vigorous  
intensity physical activity in Mexican-heritage  
*Colonias*

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## Introduction

- Child physical activity (PA) -> many cognitive, social, and physical health benefits
- Latinx children are up to 60% less likely to meet PA recommendations
- Children in rural and low-income communities have fewer supports / more barriers
- Social environment / network is significantly related to child PA



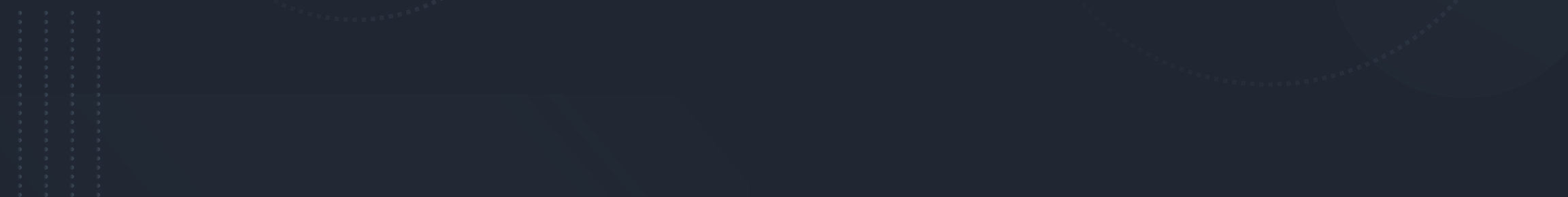
## Social Network Analysis

- Understanding the connections between people and the social structure embedded in human nature
- Inherently different than traditional survey methods
- Research suggests networks are important in adolescent PA
  - Social Selection
  - Social Influence
- Few race/ethnic specific



# Study Focus

Understand associations between self-reported play networks and sedentary time and minutes of moderate-to-vigorous physical activity among Mexican-heritage children in *colonias*

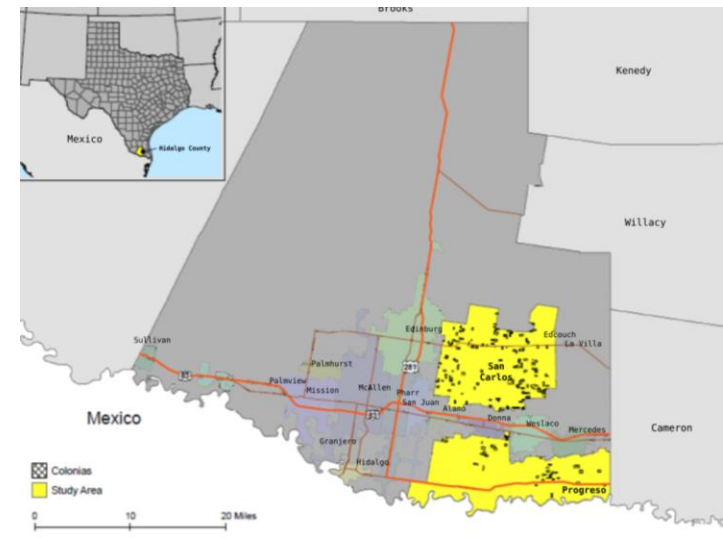




# Setting / Population

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





# Methods

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



Wrist worn accelerometers

Sedentary time

Minutes of MVPA



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

Limited to 5

Relationship, Frequency of play, Do they help you to be active



Linear Regression

# Results - Sample

- 44 children
- Mean age=9.89 years old;  
SD=0.97
- 48.8% Male



# Results – Sedentary Time

<b>(R<sup>2</sup>=.24)</b>	<b>B</b>	<b>β</b>	<b>p-value</b>
Age	28.08	.44	.002*
Sex	21.06	.17	.26
Percent of Network Friend	-24.87	-.14	.22
Play Frequency	-20.37	-.28	.03*
Number of Alters Who Help	1.12	.03	.84



# Results – MVPA

<b>(R<sup>2</sup>=.30)</b>	<b>B</b>	<b>β</b>	<b>p-value</b>
Age	-3.25	-.17	.26
Sex	-17.45	-.47	.002*
Percent of Network Friend	14.00	.27	.04*
Play Frequency	-3.49	-.11	.89
Number of Alters Who Help	-.23	-.02	.83

# Conclusions



Play network composition is associated with physical activity among MH children



Increasing the connections between children and frequency of play may increase activity



Programs/opportunities which build social cohesion and provide safe cooperative play

# Contact Information



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Presentation



Project