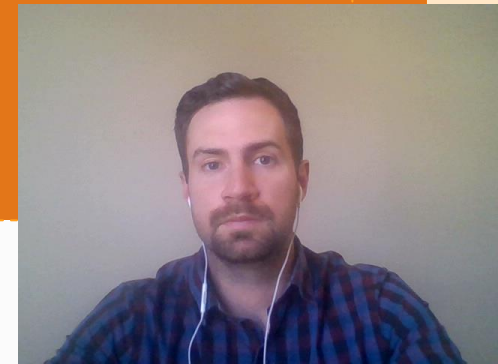


Physical activity and adolescent social connection at summer care programs: a longitudinal network approach

Tyler Prochnow, MEd; Megan S. Patterson, PhD;
Christina Bridges Hamilton, MPH; Haley Delgado;
M. Renée Umstattd Meyer, PhD





TIME OF REDUCED
ACTIVITY AND
ACCELERATED
WEIGHT GAIN



LESS
STRUCTURED
TIME AND PA
OPPORTUNITIES

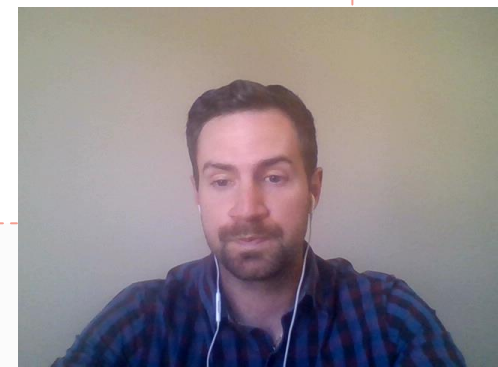


14.3 MILLION
ADOLESCENTS
ATTEND
SUMMER CARE
PROGRAMS (SCP)



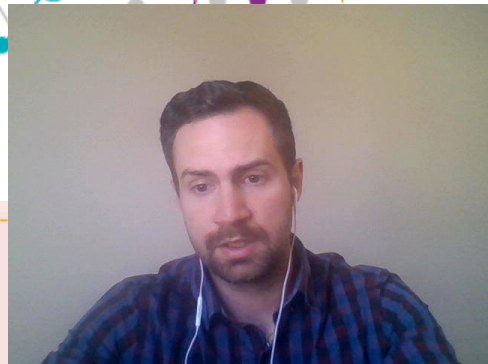
SCP PROVIDE
STRUCTURED PA
OPPORTUNITIES
WHILE ENCOURAGING
SOCIAL INTERACTION

Introduction – Summer PA



Social Network Analysis (SNA)

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



SNA and PA

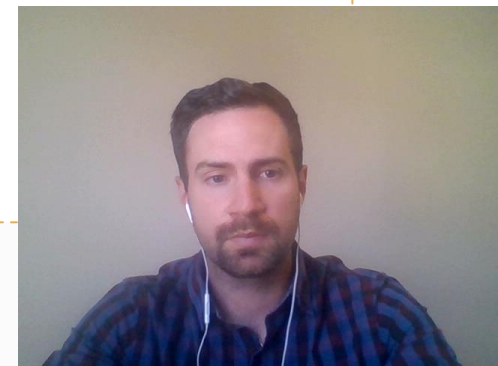
- ♦ More involved than social support or co-participation
- ♦ Research suggests networks are important in adolescent PA
 - ♦ Social Selection
 - ♦ Social Influence



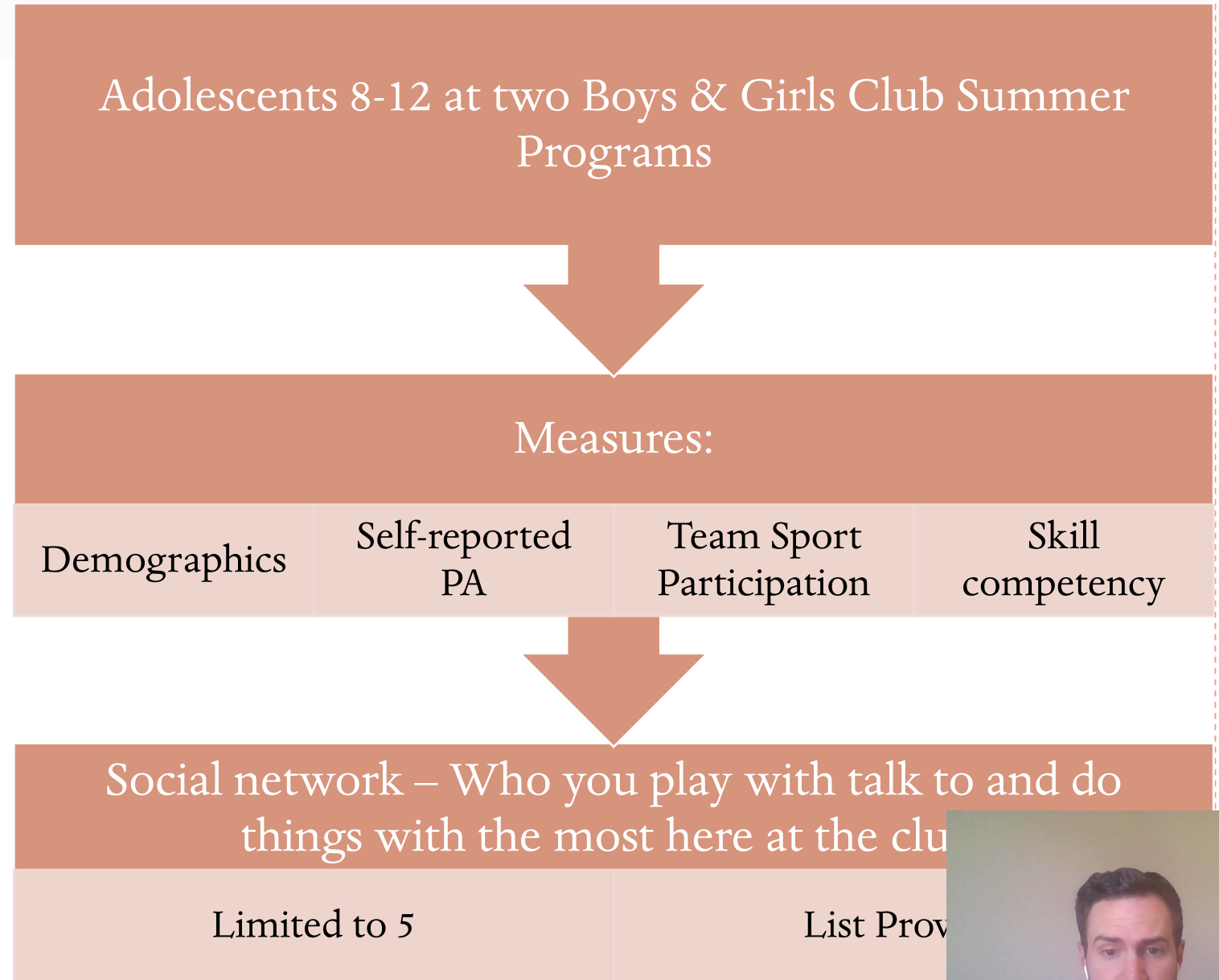


Study Objective

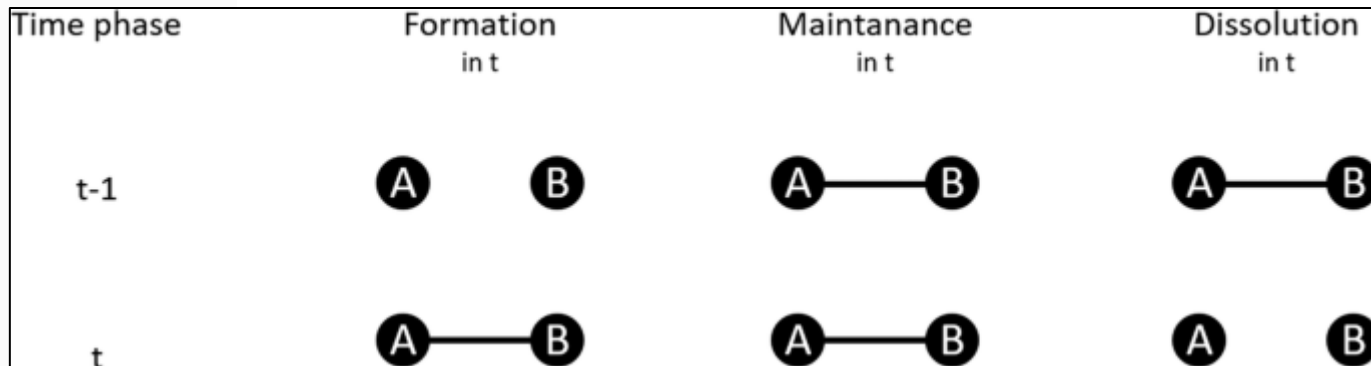
Investigate the impact of PA, skill competency, and team sport participation on the formation of friendship ties among a group of adolescents at two summer care programs



Methods



Methods – Statistics

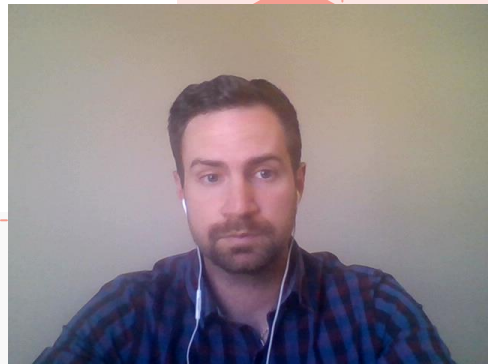


- ♦ Exponential random graph modeling (ERGM) was used to determine significant factors associated with friendship tie presence at each time point
- ♦ Separable temporal exponential random graph modeling (STERGM) was used to model significant changes between timepoints.



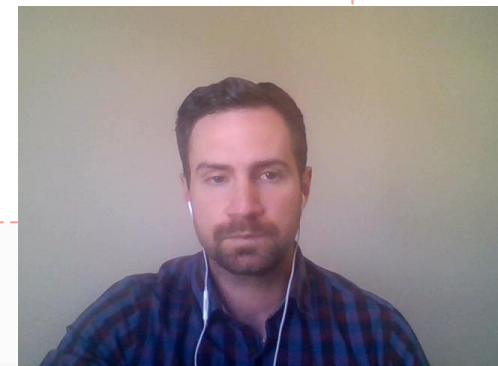
Results - Sample

	Site 1		Site 2	
	Time 1 (n=100)	Time 2 (n=77)	Time 1 (n=27)	Time 2 (n=32)
Age M(SD)	9.94 (1.34)	9.83 (1.46)	9.19 (1.18)	9.56 (1.32)
Sex % (N)				
Male	47.0% (47)	50.6% (39)	37.0% (10)	37.5% (12)
Female	53.0% (53)	49.4% (38)	63.0% (17)	62.5% (20)

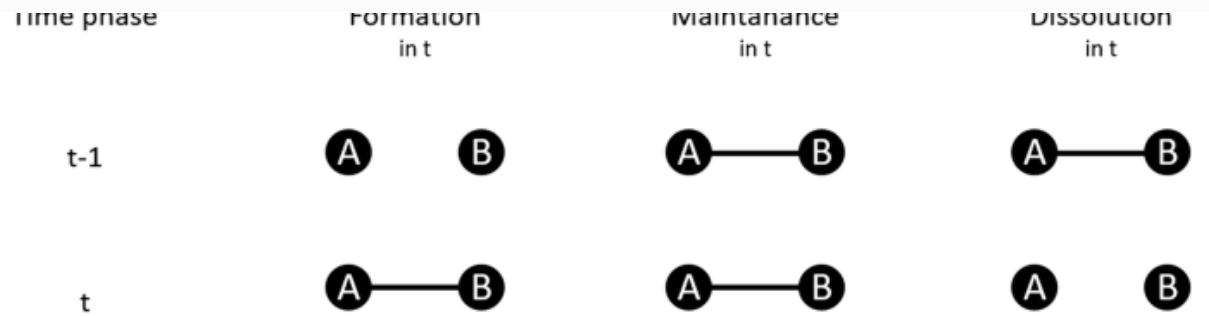


ERGM Results

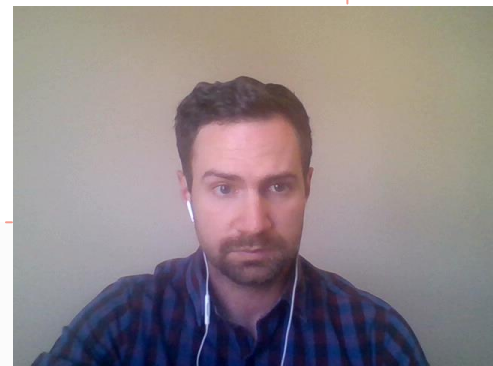
- ♦ Reciprocity, Transitivity, Sex and Age Similarity
 - ♦ Both Sites / Both Time Points
- ♦ Team Sport Participation - Similarity and more likely to receive nominations at larger site
- ♦ PA - Similarity, less likely to send ties, more likely to receive ties
 - ♦ At time one in smaller site, at time two in larger site



STERGM Results



- ♦ More likely to form and maintain friendships
 - ♦ Reciprocated, transitive, same age, same sex
- ♦ Larger site – more likely to form friendships with those similar in PA
- ♦ Smaller site – more likely to form friendships with those NOT similar in PA; but more likely to maintain friendships with those similar in PA.
 - ♦ Also more likely to maintain incoming ties if they reported more PA.



Conclusions



Team sport participation may play a role in adolescents' friendship networks



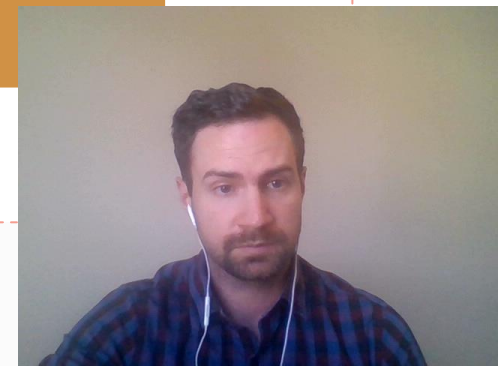
PA (similarity and popularity) impact friendship



The size of the summer care program may impact friend selection and related associations

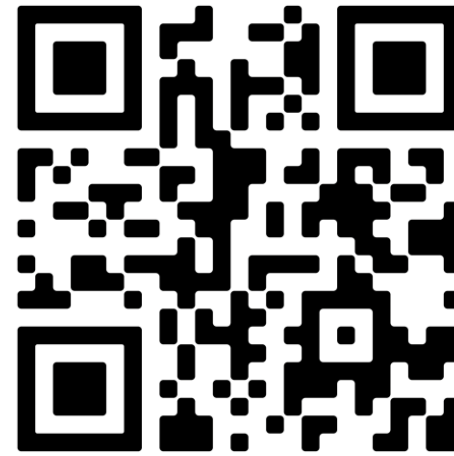


Summer care social networks may be a promising avenue for targeted PA promotion activities



Questions and contact

- ♦ Tyler_prochnow1@baylor.edu
- ♦ Tprochnow.com



Presentation



Project



**BOYS & GIRLS CLUBS
OF AMERICA**

