

Who's in Control?: A Physical Activity Intervention Targeting Changes in Social Control

Sean Pinkerton, Kathleen S. Wilson, & Elaine Rutkowski
California State University, Fullerton



Introduction

- Social control (SC) is a regulatory type of social influence where one individual prompts or persuades another to perform a desired behavior (Lewis & Butterfield, 2005).
 - Use of SC by parents has been linked physical activity (PA) behaviors of their child (Wilson et al., 2010; Wilson & Spink, 2011)
 - Previous literature has shown that collaborative SC has shown the strongest relationship to increased PA in children (Wilson & Spink, 2010; Wilson & Spink, 2011)
- Previous studies have used correlational designs to investigate how different types of SC are used by parents (Wilson et al., 2010; Wilson & Spink, 2011)
 - However, this research does not provide evidence if an intervention would lead to changes in type of SC use
 - Understanding this will provide new intervention strategies to help parents get their children more physically active

The purpose of this study is to explore if a pilot physical activity intervention could lead to changes in parent/child SC use and PA levels

Methods

Participants:

- Parent and child dyads ($n = 19$)
 - Parent: 15 Female, 4 Male / Child: 7 Girls, 12 Boys
- Children were required to be between 8 – 17 years old
 - ($M = 11.5$ years, $SD = 2.0$ years)

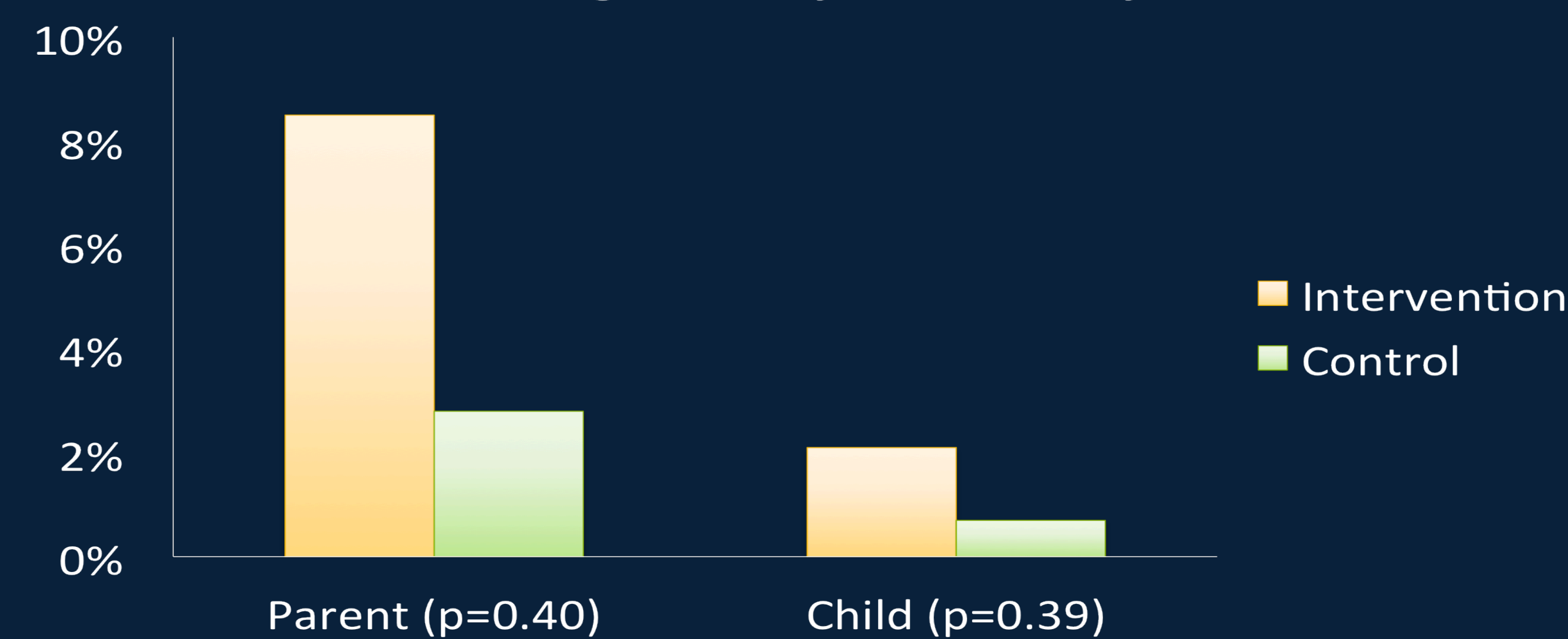
Procedures:

- Dyads randomly assigned to intervention group where parents promoted activity with their child or a control group, which targeted only the parent
- Both parents and children completed a pre- and post- online survey
- Intervention delivered through email over 10-week period
 - Emails included an activity targeting a regulatory skill (e.g. goal setting)

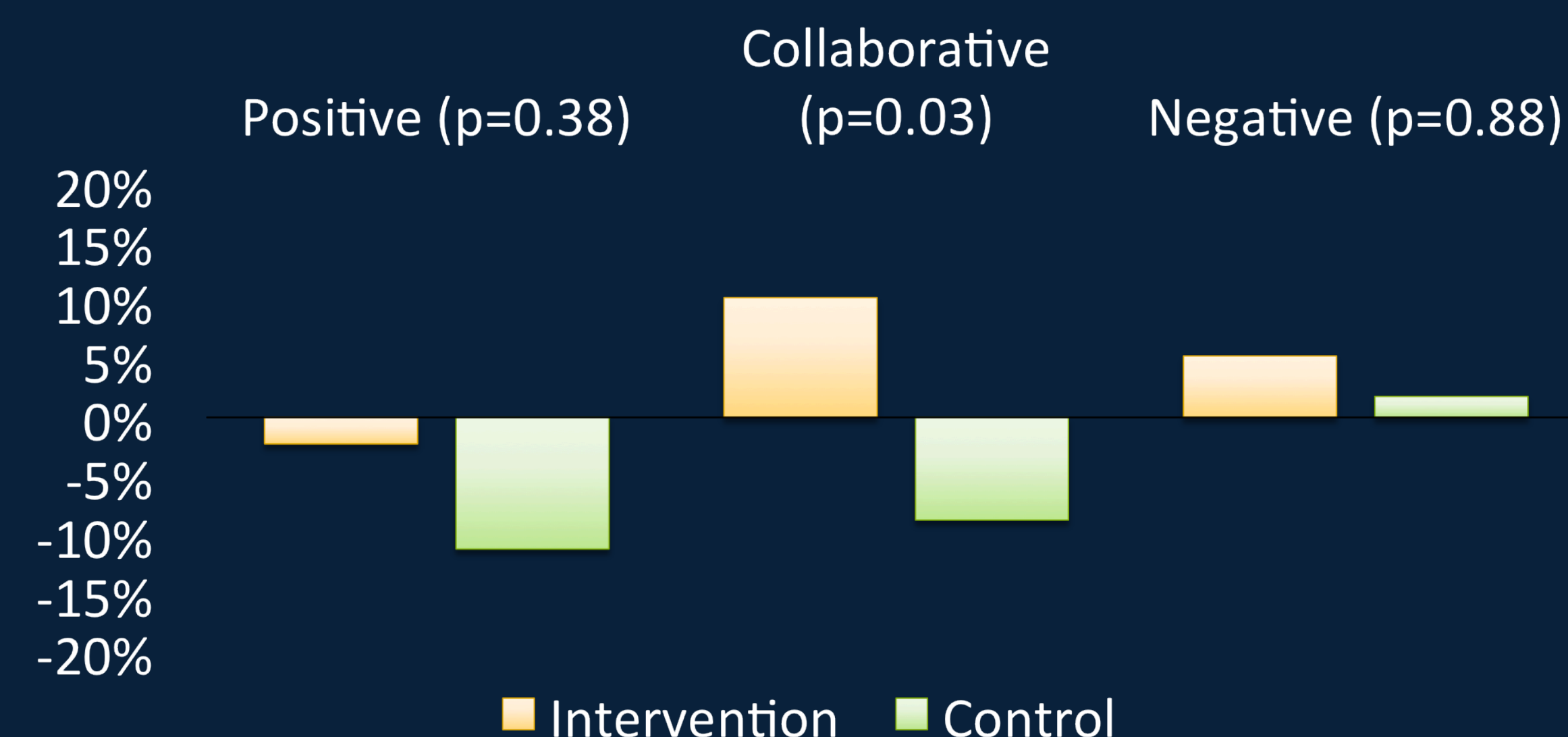
Intervention Description:

- Email-based employee wellness intervention over 10-week period, where each group received 1 email per week
 - Topics of emails included: goal setting, self-monitoring, barriers, neighborhood evaluation, enlisting friends
- Intervention group: Parent prompted to include child in weekly activities
- Control group: Parent prompted to perform weekly activities by themselves
 - Activities only differed by including sections for the child

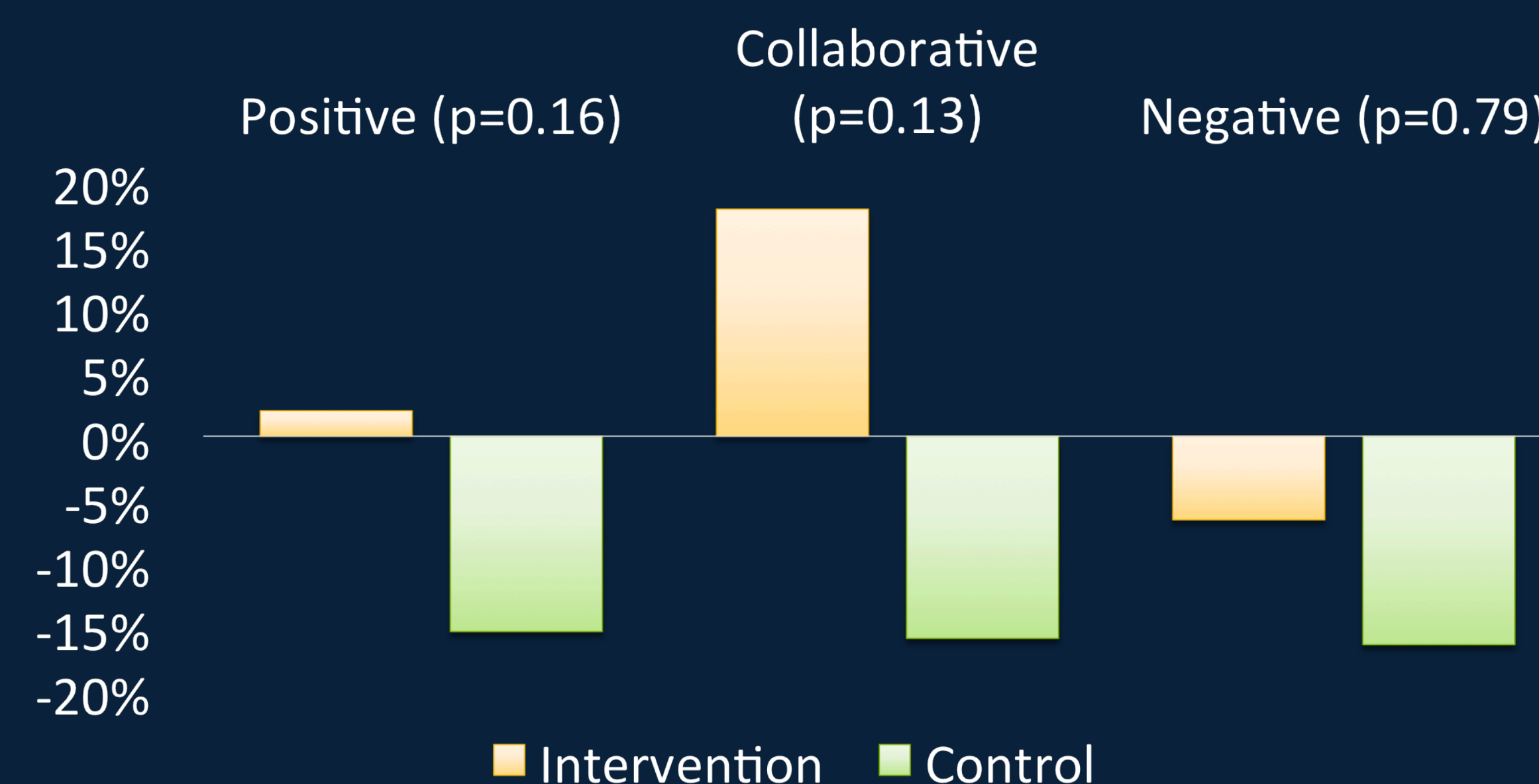
Changes in Physical Activity



Changes in Parent Reports of SC



Changes in Child Perception of SC



Measures:

Physical activity:

- PAQ-AD (adults) & PAQ-C (child, (Copeland et al., 2005; Crocker et al., 1997))

7 day recall / Score of 1-5

Social control use:

- 3 types of social control (Wilson et al., 2010)
 - Positive SC (PSC): Encouraging strategies
 - Collaborative SC (CSC): Offer to be active
 - Negative SC (NSC): Nagging
- Responded on a 1 (never) to 7 (frequently) scale

Analysis

- Alpha = 0.10
- 2 (time) x 2 (group) Mixed Factorial ANOVA

Results

Collaborative SC:

- Parent: Significant interaction ($p=0.03$)
 - Intervention group used CSC more than control
 - Control: -8.8%, $p=0.21$; Intervention: 10.2%, $p=0.06$
- Child: Approached significant interaction ($p=0.13$)
 - Intervention perceived use of CSC more than control
 - Control: -15.9%, $p=0.18$; Intervention: 17.8%, $p=0.58$

Discussion

- Difference for collaborative SC found to be significant in parents and approach significance in children
 - Family focused intervention led to greater collaborative SC than adult focused control group
 - Trend provides support that an intervention may change how parents interact with their child collaboratively
 - Encouraging due to previous literature finding that collaborative SC is related to increased PA (Wilson & Spink, 2010; Wilson & Spink, 2011)
- No significant differences for PA found in parents and children
 - May be due to use of self-reported PA vs objective measure as self-reported data can be over reported (Prince et al., 2008)
 - Being a 10 week study might have limited the amount of change in PA seen as other studies used minimum of 12 weeks (Haines et al., 2007; Hatchett et al., 2013; Motl et al., 2011)
 - Children reported a 2.9 out of 5 at baseline, leaving less room for improvement

Strengths

- Compared parent-child dyads
- Population included individuals of all activity levels

Limitations

- Self-reported PA data
- Only faculty and staff at colleges/universities
- Challenges with recruitment lead to limited sample size

Future Directions

- Use delivery method such as an smart phone app that is easily accessed, more interactive, and easier to check previous completed activities

Conclusion

- Results indicate a PA intervention may influence the parent's use of collaborative social control
- These findings show that there needs to be further investigation of the effects of a PA intervention as an influence on social control and whether this can translate into changes in PA level.