

## Introduction

Autism Spectrum Disorder (ASD) describes a developmental disorder associated with deficits in socialization and restricted or repetitive sensory-motor behaviors. Surveys have shown that individuals with autism report higher rates of loneliness, depression, and anxiety compared to their typically developing peers. Summer camps offer social integration and support, which both have well-established positive impacts on the overall wellness of individuals with ASD, including health benefits through physical activity.

## Aims and Objectives

The **primary goal** of this pilot study is to explore a potential social benefit to adolescents with autism that may result from attending a summer camp.

The **secondary goals** of this investigation are to broaden the unique treatment considerations for individuals with ASD and to prompt future studies alike for individuals with various disabilities.

## Methods

- Caregivers of adolescents 11-18 years old attending summer camp (“campers”) were surveyed regarding observed social skills of campers before and after attending camp.
- The survey is a minimally modified version of the Autism Social Skills Profile (ASSP), a 42-item measure rated on a 4-point Likert scale ranging from Never to Very Often.
- The ASSP yields three subscale scores: social reciprocity, social participation, and detrimental social behaviors.
- Additional prompts were available for optional comments for the caregiver to answer about changes seen in their child after camp participation.

## Results

- 6 post-camp survey respondents could be matched to pre-camp survey responses, all of which were regarding campers in the autism group.
- A two-tailed independent t-test comparing matched pre- and post-camp responses (N=6) did not show any significant difference in either the total ASSP scores or the subscale scores ( $p > .05$ ) – See figures 1 & 2 below.
- Overall, all qualitative responses regarding camp experiences were positive (see box below).

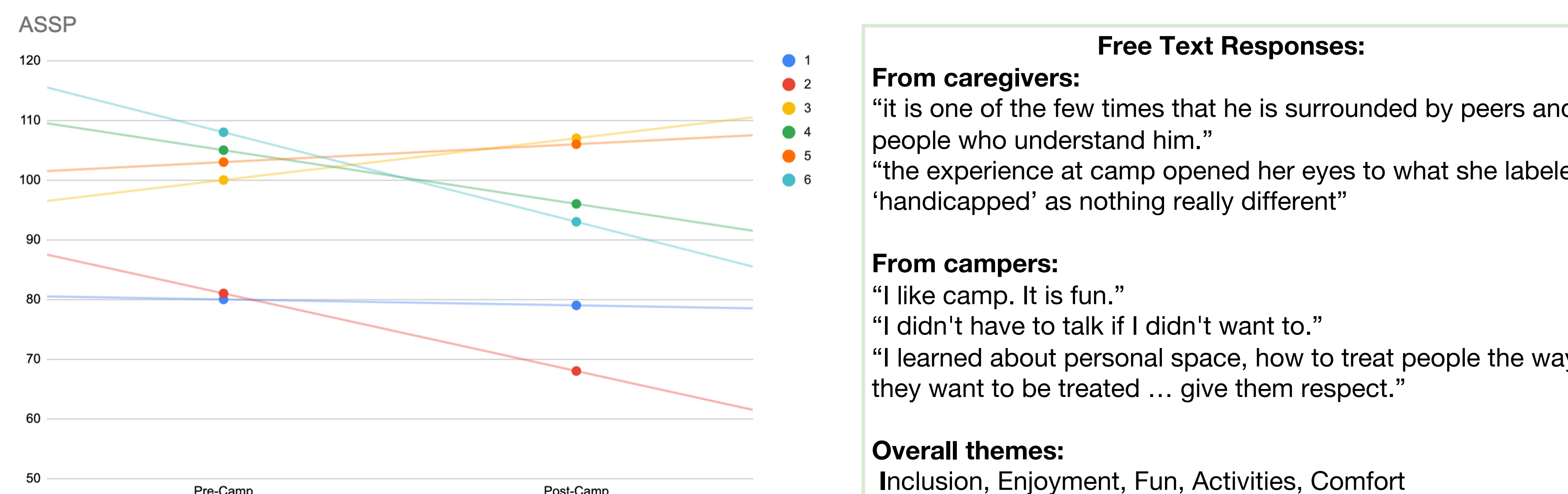


Figure 1. Comparison of matched scores from caregivers who completed the Autism Social Skills Profile (ASSP) before and after the camp intervention. There is no statistical significance ( $p = .58$ )

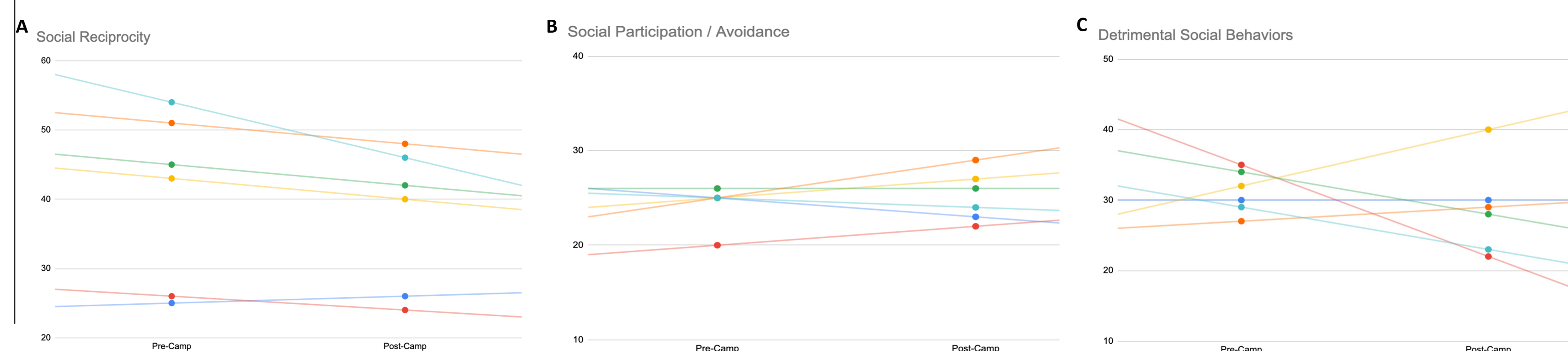


Figure 2A-C. Comparison of matched scores from caregivers (1-6 as in Fig. 1) for each of the three subscales from the ASSP: A. Social Reciprocity ( $p = .66$ ), B. Social Participation / Avoidance ( $p = .56$ ), C. Detrimental Social Behaviors ( $p = .41$ )

## Conclusions

The results are limited and statistically insignificant given the limited amount of respondents, which was likely from a variety of factors including the effects of the COVID-19 pandemic on camp operations and volumes. As this is a pilot study and one with a small sample size, more studies need to be performed in the future, ideally with less exclusion criteria and new strategies for collection of survey responses. In general, the qualitative feedback provided by campers and caregivers was all positive in nature and physical activity has proven mental health benefits for anyone. Therefore, camp activities should continue to be encouraged amongst adolescents with autism for the physicality, social interaction, and caregiver respite.

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