

Abstract

Many adolescent residential programs provide involuntary treatment to adolescents. Adolescent clients sometimes arrive to these programs through the use of a transporting service hired by parents. While transporting youth to treatment is generally thought of as a last resort, it has become a common practice in many private treatment programs, and particularly in outdoor behavioral healthcare (OBH). There is debate regarding whether this practice is ethical and if it affects treatment outcomes. Previous research is limited due to a lack of follow up data and being focused on a single program. To build on existing research, this study longitudinally followed adolescent clients from four OBH programs across the US to answer the questions: (1) Is the rate of change during treatment different for transported youth? (2) Is the rate of change different for youth depending on gender and diagnosis?

In this study transported youth did as well as non-transported youth throughout treatment and six months post treatment. While gender, substance, anxiety, and behavior diagnoses showed no interaction, transport had a positive effect with mood disorders. These findings support previous research which found that transporting did not negatively affect their treatment; it also provides evidence that transport may be beneficial to some adolescents.

Does Transporting Youth Affect Outcomes in Outdoor Behavioral Healthcare?

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Introduction

While common, transporting youth can be controversial and there are concerns regarding its effect on treatment outcomes.

Research questions:

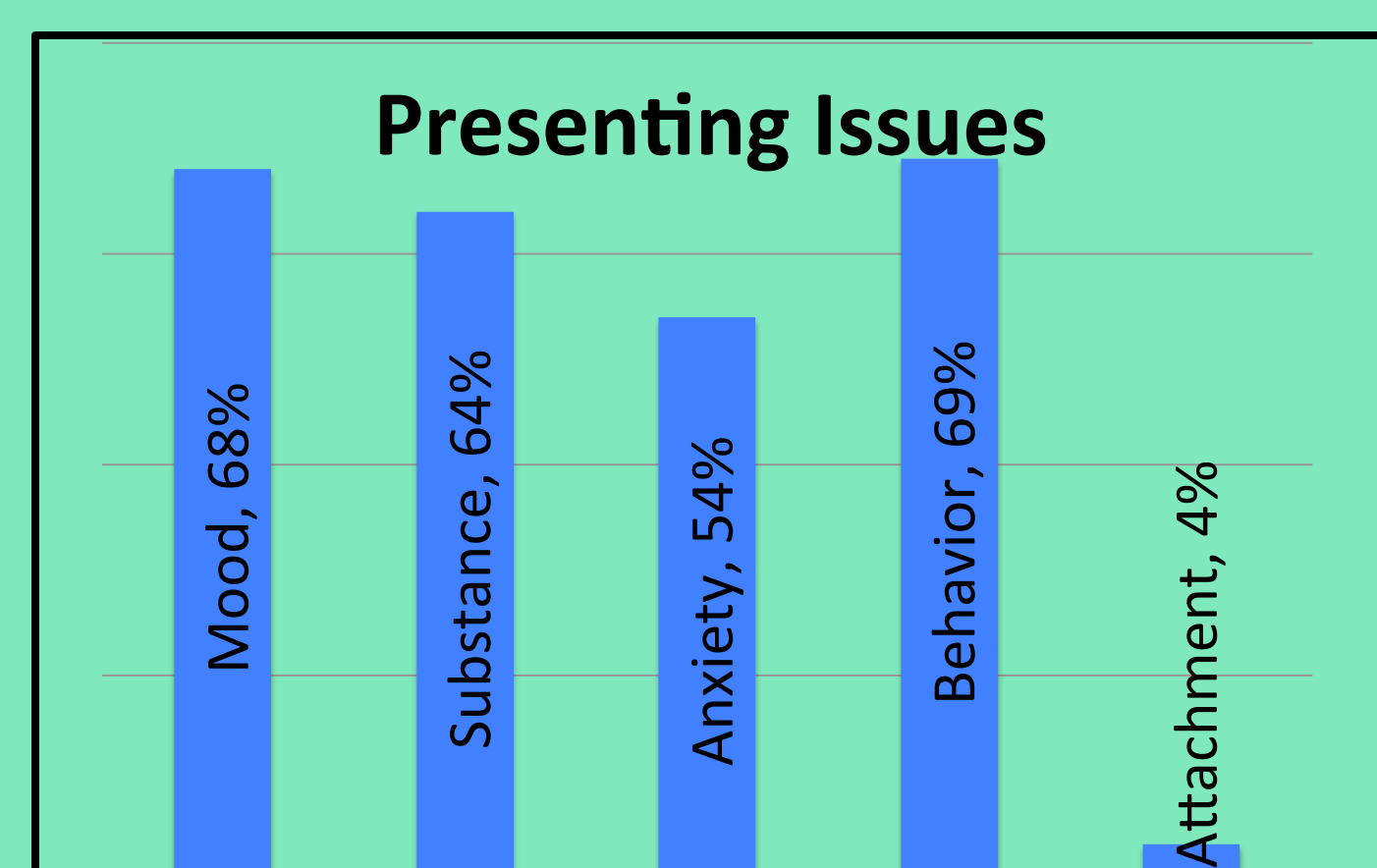
1. Is the rate of change during treatment different for transported youth?
2. Is the rate of change different for youth depending on gender and diagnosis?

Methods

- Enrolled adolescents at four wilderness therapy programs from June 2011–June 2012 (Participation rate was 85%, N=659)
- Collected data at intake, weeks 3 and 5 of treatment, and 6 months post-discharge
- Conducted multi-level models to assess trajectories of change for transported and non-transported youth.

Participants

- Average age = 16.3 years
- Gender: 29% Female, 71% Male
- Parents living together = 65%
- Average length of stay = 10.4 weeks
- Adopted = 18%
- Transported = 65%



Treatment Model

What is Outdoor Behavioral Healthcare?

The prescriptive use of wilderness experiences provided by mental health professionals to meet the therapeutic needs of clients (AEE, 2014)

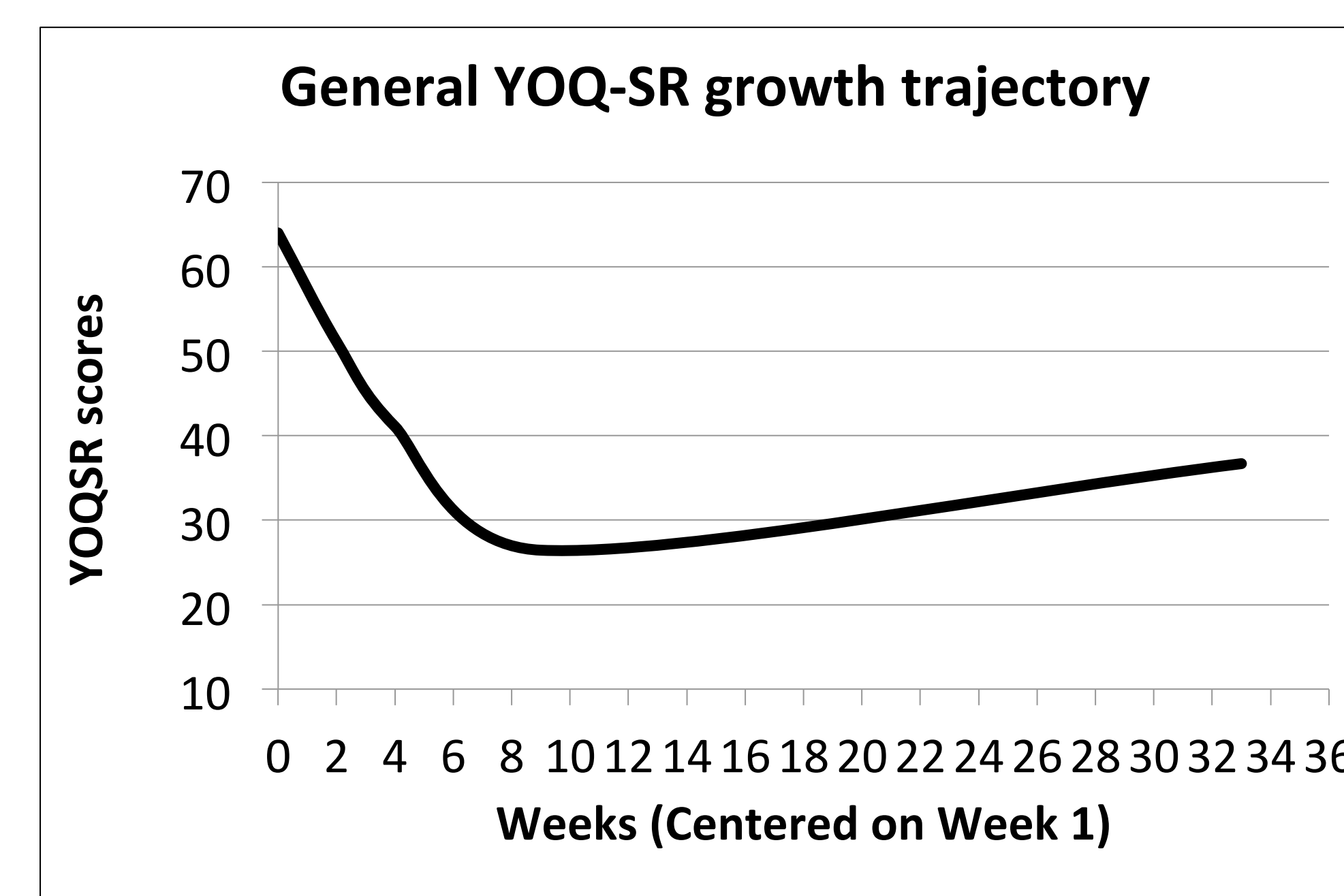
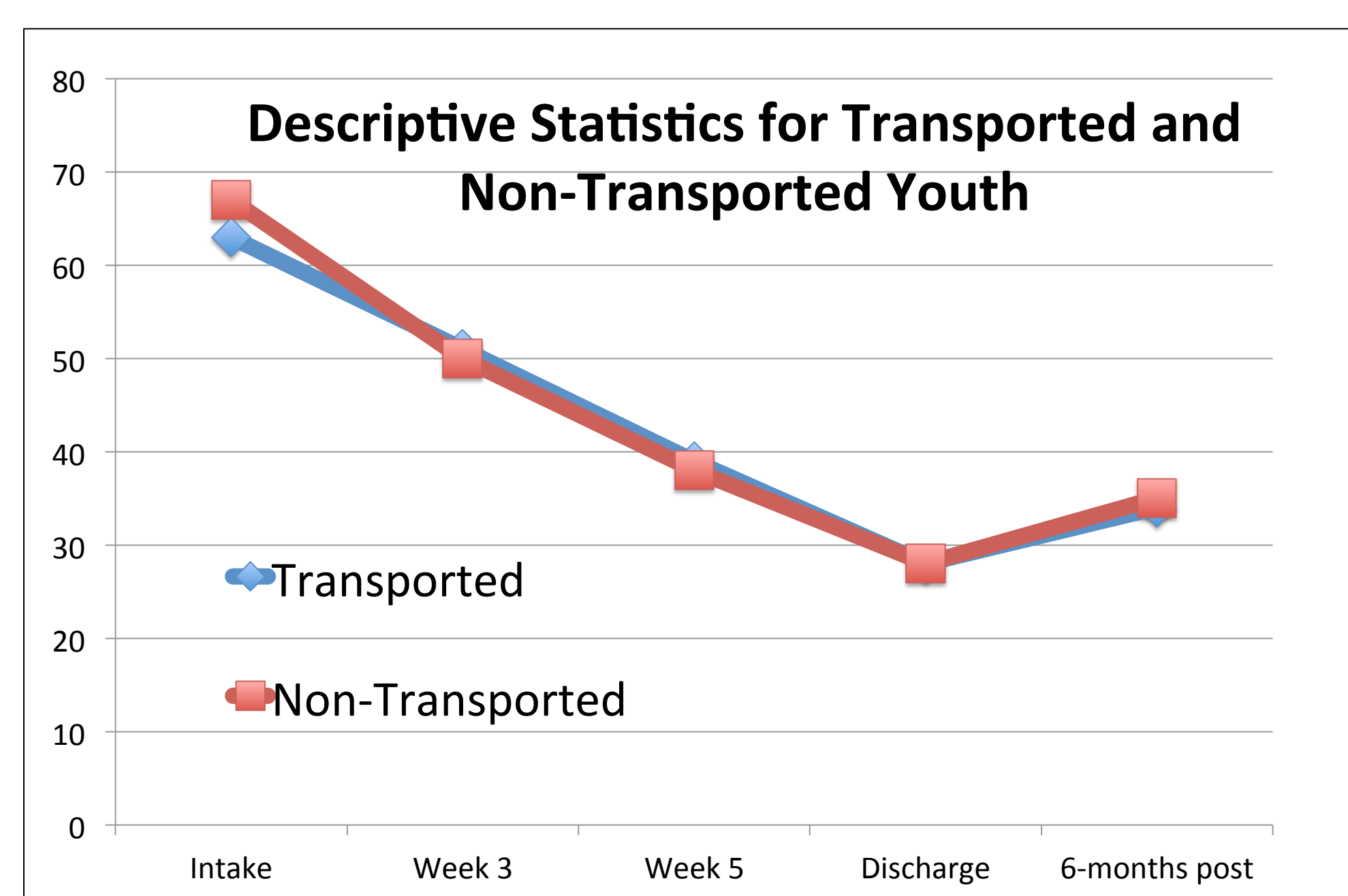
Essential therapeutic elements include:

- Extensive wilderness and primitive living
- Relational growth through group living
- Group and individual therapy
- Strong ethic of care and support
- Task accomplishment to promote self-efficacy

Measure: Youth Outcome Questionnaire-Self Report (Y-OQ-SR)

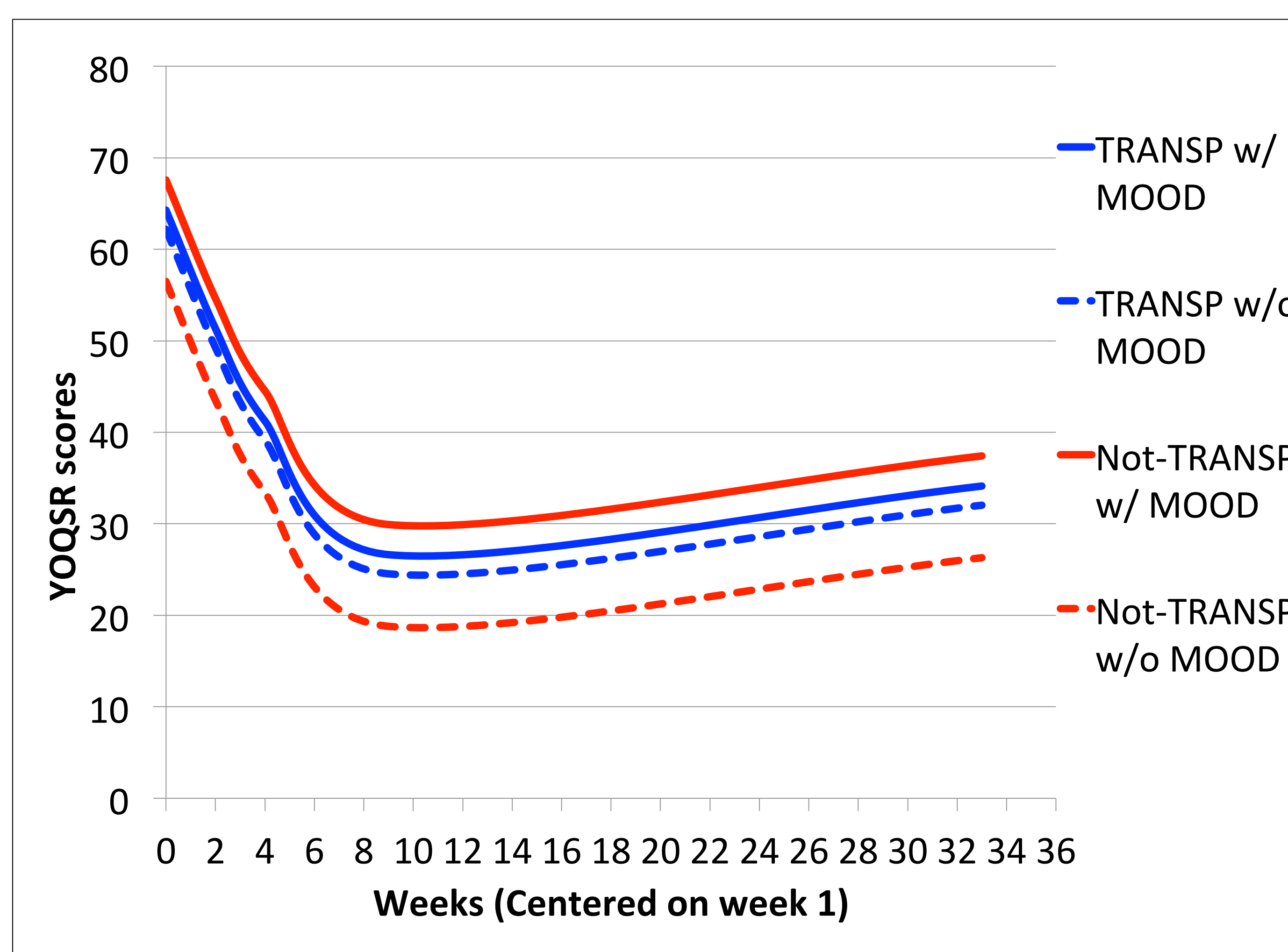
The Y-OQ-SR has 64 items assessing interpersonal distress, somatic symptoms, interpersonal relations, critical items, social problems, and behavioral dysfunction. Higher scores represent greater dysfunction, while lower scores represent fewer negative symptoms. Its reliable change index is 18 points and the community functioning cutoff score is 47.

Results



As the main focus of our research was on differences between transported and non-transported youth, our preliminary investigation involved exploring the general pattern of change in average Y-OQ-SR scores for youth transported to the program compared with those not transported. The descriptive statistics graph shows the average YOQ-SR scores for transported and non-transported adolescents at each time point.

While descriptive statistics are useful in helping us understand how the average Y-OQ-SR scores differ from one measurement occasion to the next, they do not address our questions about rates of change over time since they do not provide estimates of Y-OQ-SR growth trajectories. Thus, we employ multi-level modeling. To begin our analysis, we determined the appropriate shape of the level-1 growth trajectory using time as the only variable. The General Y-OQ-SR growth illustrates a curvilinear relationship characterized by a rapid decline in scores from week 1 to week 7, then a slower decline in week 7. Around week 10-11 (average discharge week), the Y-OQ-SR scores slowly increased. Between weeks 10 to 34 (post OBH treatment), the Y-OQ-SR was predicted to increase by approximately 10.25 points.



Our primary research question asks whether there were differences in participants' growth trajectories based on being transported. The multi-level model found that **participants who were transported did not differ compared to those who were not transported**. We further tested the effect of being transported by adding into the model each of the four major diagnoses and gender. Results showed that **the only significant interaction with being transported was having a mood diagnosis** ($t=-2.00, p<.05$).

The effect of mood for non-transported students was large, approximately 11.1 points (difference between red lines). However, **the effect of mood was not as large for transported students**, only 2.1 points (difference between blue solid and dashed lines). Comparing youth diagnosed with mood disorders, transported youth tended to have healthier scores than non-transported youth, and being transported appeared to buffer the differences between those with and without mood disorders.

Discussion

- In this sample, **transported and non-transported youth did not differ** by initial status, nor did they have different trajectories of change from intake to six month post-discharge.
- This study affirms previous research findings that being transported does not negatively affect treatment outcomes.
- This study is the first to investigate the effect of transport after discharge, and to analyze the trajectory of change using a rigorous method of analysis, thus adding several new insights to the literature. It showed that there are no differences in rates of change, even post-discharge, and highlighted that transport may be beneficial to students with a mood disorder.
- Of the variables investigated (gender and the four most common diagnoses), mood disorders were the only found to have a significant interaction with being transported. **Being transported appeared to buffer the negative impact of having a mood disorders.**
- The finding of a positive effect of transport and mood disorders is surprising considering the debate around the ethics of involuntary treatment and transporting youth to treatment.

Limitations

- The quasi-experimental design with no control group limits these findings.
- Using only a self-report measure is limited.
- The four programs were connected by ownership and have traditional wilderness therapy models; therefore, generalization to all OBH and transport services is not appropriate.
- This study only looked at the effect of transport on outcome as measured by the YOQ-SR. Findings do not necessarily address all concerns regarding transport. Research on adolescent perceptions of transport would be helpful.