

Implementing Psychoeducational Sleep Hygiene Training to Decrease Stress in Caregivers of Children with Autism Spectrum Disorder

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PROBLEM STATEMENT

- The American Academy of Neurology has established guidelines that recommend providers offer caregivers behavioral interventions and counseling for sleep strategies to address behavioral insomnia
- Research has shown early behavioral counseling and parental support programs have yielded benefits in general health in both children and caregivers
- Approximately 50-80% of children diagnosed with ASD experience sleep disorders
- Sleep disorders in children are associated with an increase in daytime problematic behaviors which plays a role on the parent/caregiver mental health

PROJECT PURPOSE

- Implement a psychoeducational caregiver support protocol in the developmental and behavioral outpatient setting in Tampa, Florida
- The project will aim to answer the following question: In parents of children with Autism Spectrum Disorder, will implementation of a parental support protocol reduce APSI scores over three months compared to no intervention?

MODEL/NURSING THEORY

- University of Iowa's "Model of Evidence-Based Practice Revised" was chosen as the model for this project.
- Bandura's Self-Efficacy Theory (SET) was chosen to guide the implementation of this project.

METHODS

- After project deemed not human subject research by University of South Florida IRB on August 31, 2022, project number 004668, purposive convenience sampling was used to recruit potential participants from Pediatric Health Care Alliance from August 31, 2022, to December 16, 2022.
- 12-week program entailed of four sessions
- The Autism Parenting Stress Index (APSI; $\alpha=.83$) was used to assess caregiver stress related to autism and comorbid conditions at baseline and after 12 weeks of support sessions
- All meetings/appointments conducted in person or via a HIPAA-compliant telehealth platform (GoToMeeting)
- Changes in parent stress (dependent variable) after 12 weeks were assessed using the Wilcoxon Signed-Rank test

Figure 1

Autism Parenting Stress Index Total Scores (N = 5)

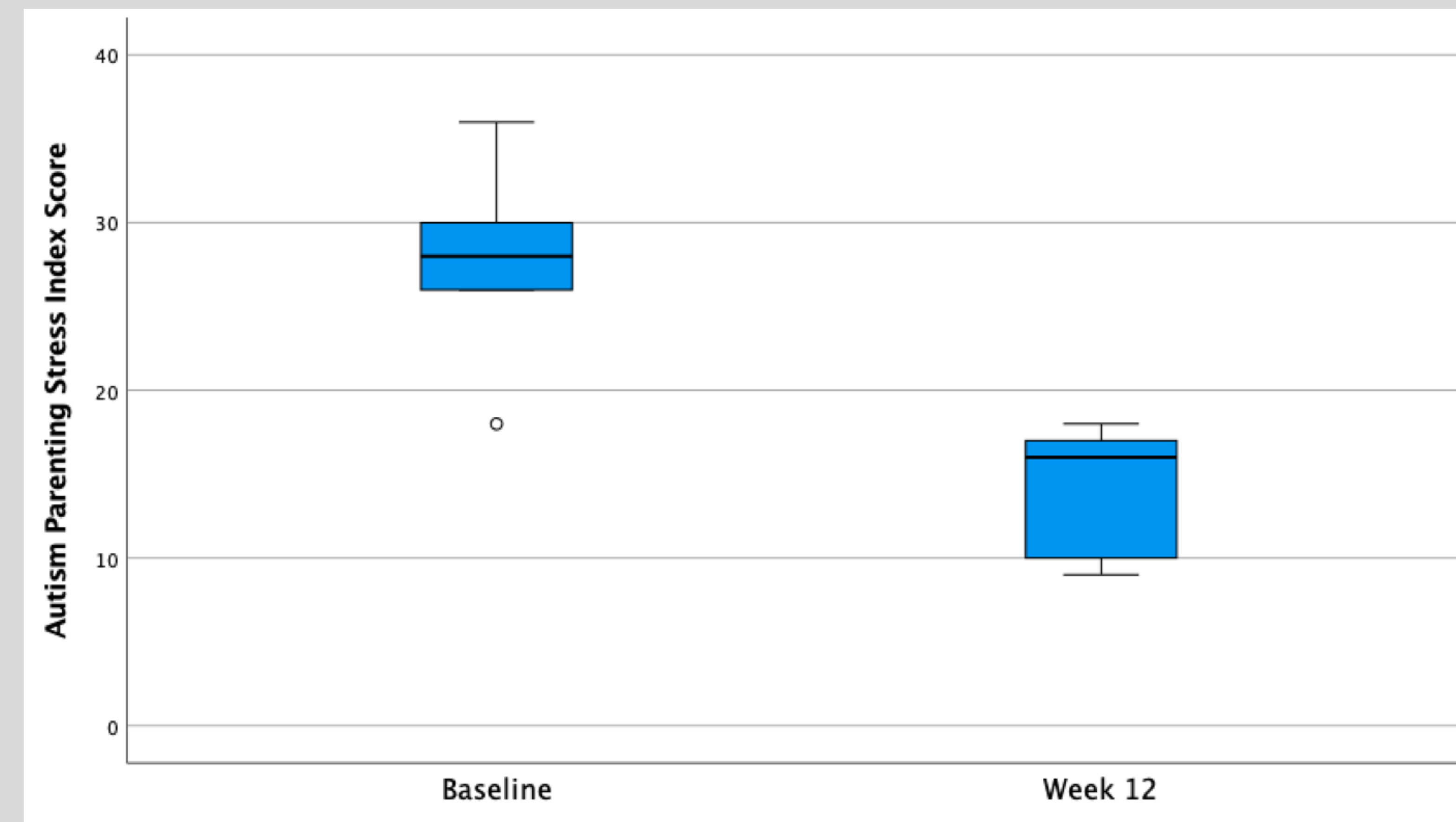
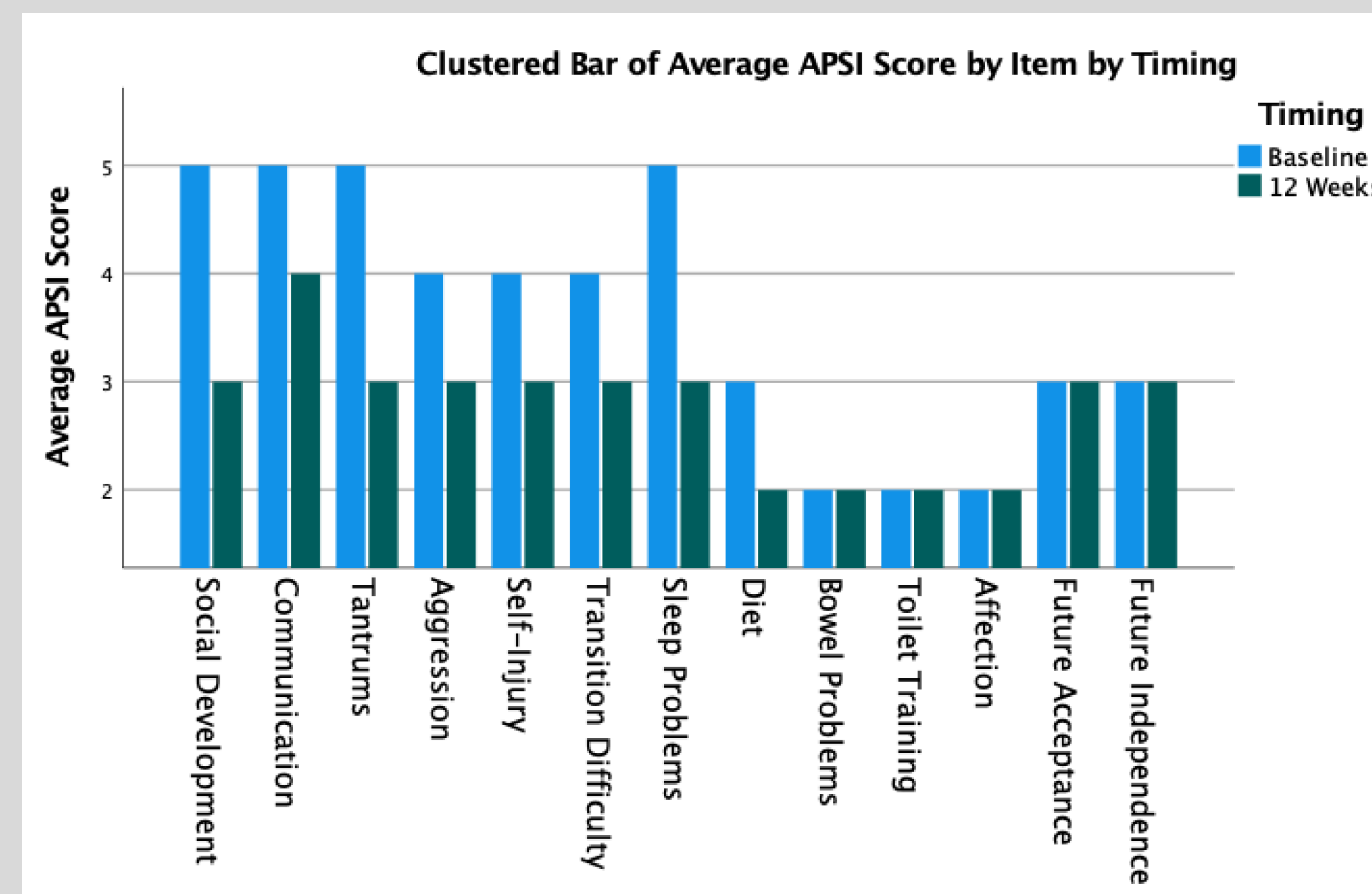


Figure 2

Autism Parenting Stress Index Item Scores (N = 5)



RESULTS

- Data were collected from a total of five patient/caregiver dyads
- Caregivers of all five participants participated in all follow-up and training sessions
- Sixty percent (n = 3) of patients were female with a median age of 3 years (IQR 3)
- Project outcomes are depicted in Figures 1 and 2. After 12 weeks, median total APSI score decreased from 28 (IQR 11) to 16 (IQR 8, Z = 2.03, p = .042, Figure 1)

DISCUSSION

- The greatest improvements were seen in Social Development, Tantrums, and Sleep Problems, with an average decrease of 2 points, followed by Communication, Aggression, Self-Injury, Transition Difficulty, and Diet with an average decrease of one point. Average Bowel Problems, Toilet Training, Affection, Future Acceptance, and Future Independence did not change.

IMPLICATIONS FOR ADVANCE PRACTICE NURSING

- Substantial need for caregiver support protocols as it pertains to sleep hygiene in children diagnosed with ASD still exists. With numerous factors leading to sleep disturbances, results are showing improvement in APSI scores with implementation of a parental support protocol. The protocol promoted self efficacy most importantly amongst parents/caregivers and provided knowledge were there was a skill deficit. Utilizing the PDSA cycle, the cycle will continue to be revised in the future.
- The protocol has been developed with feasibility of using a virtual platform to deliver care to patients and families.

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12-week parental support protocol focusing on sleep hygiene training resulted in statistically significant improvements in parental stress



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