

Effectiveness of Desensitization in Pediatric Patients with Autism Spectrum Disorder (ASD) at Tufts

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Introduction

Children with Autism Spectrum Disorder (ASD) often experience significant challenges in the dental setting due to sensory sensitivities, anxiety, and communication difficulties, limiting access to routine care. While behavior guidance includes both non-pharmacologic and pharmacologic approaches, reliance on sedation and general anesthesia carries added risks and costs. Desensitization is a structured exposure technique used to improve tolerance and cooperation; however, limited standardized data exists on its effectiveness in pediatric patients with ASD. This study evaluates a standardized desensitization protocol at TUSDM and its impact on behavior and treatment tolerance.

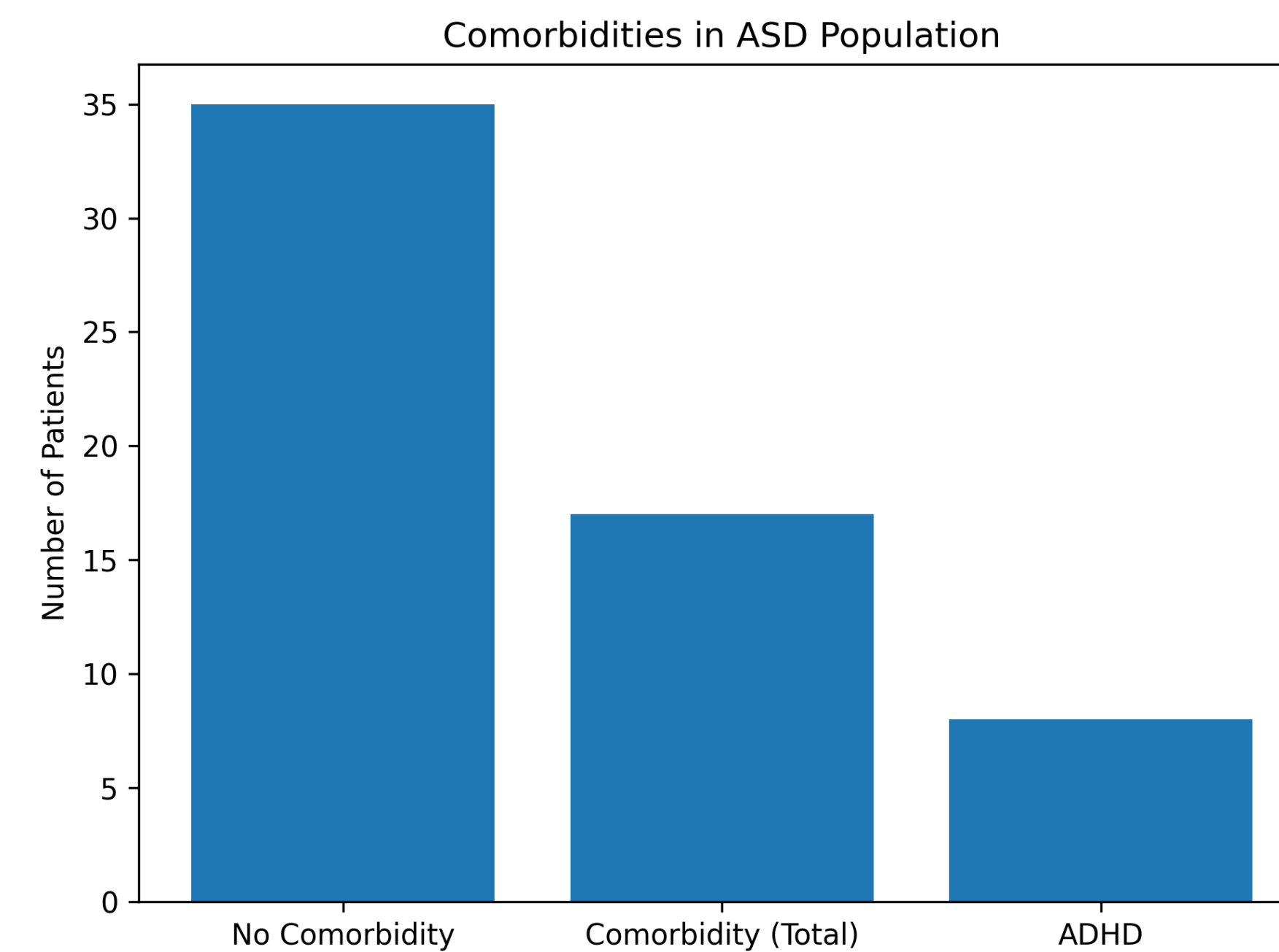
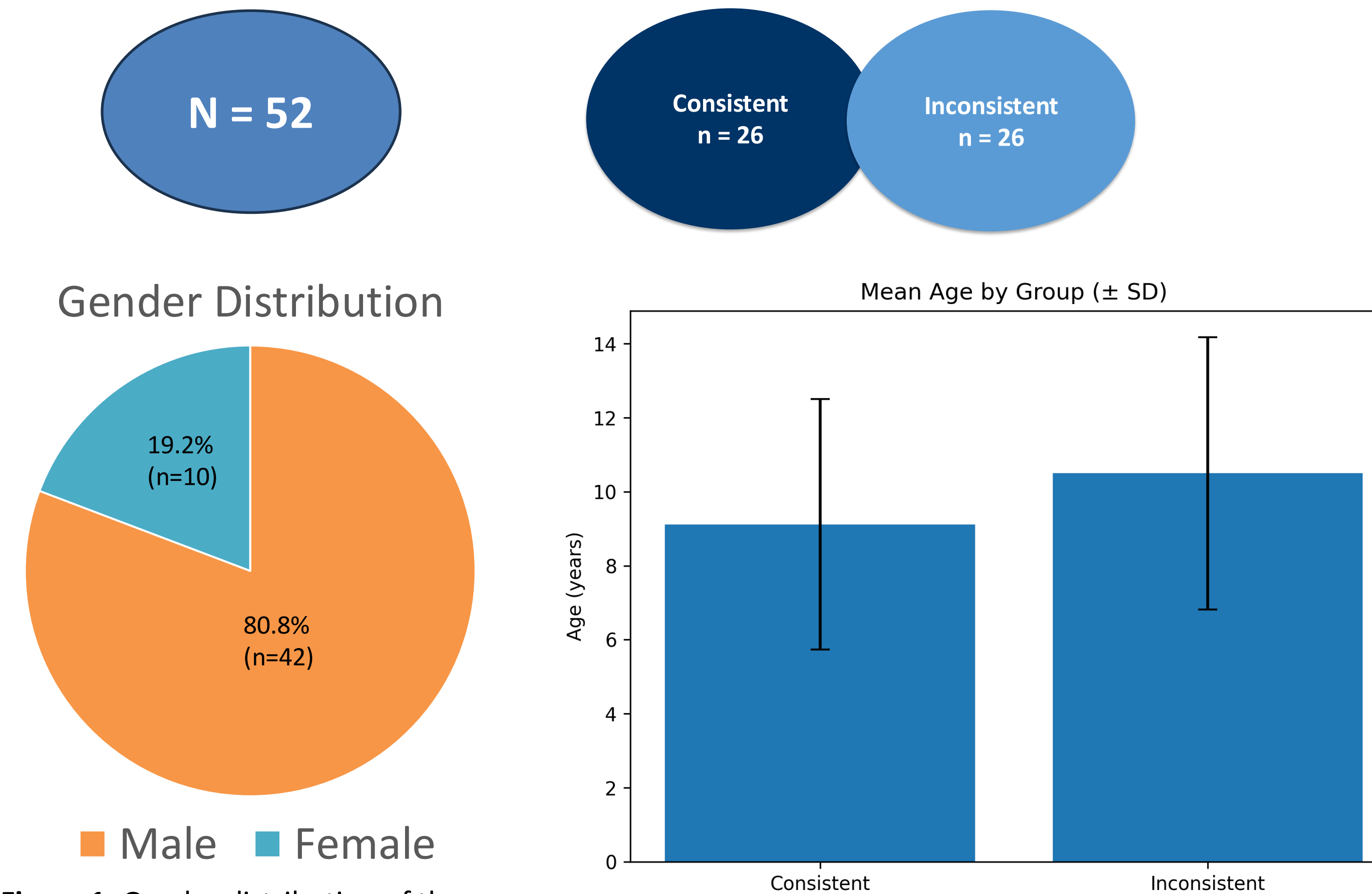
Objective

To evaluate the effectiveness of a structured desensitization program in improving cooperation and tolerance to the dental environment in pediatric patients with Autism Spectrum Disorder (ASD) and to assess changes in patient behavior using the Frankl Behavior Scale.

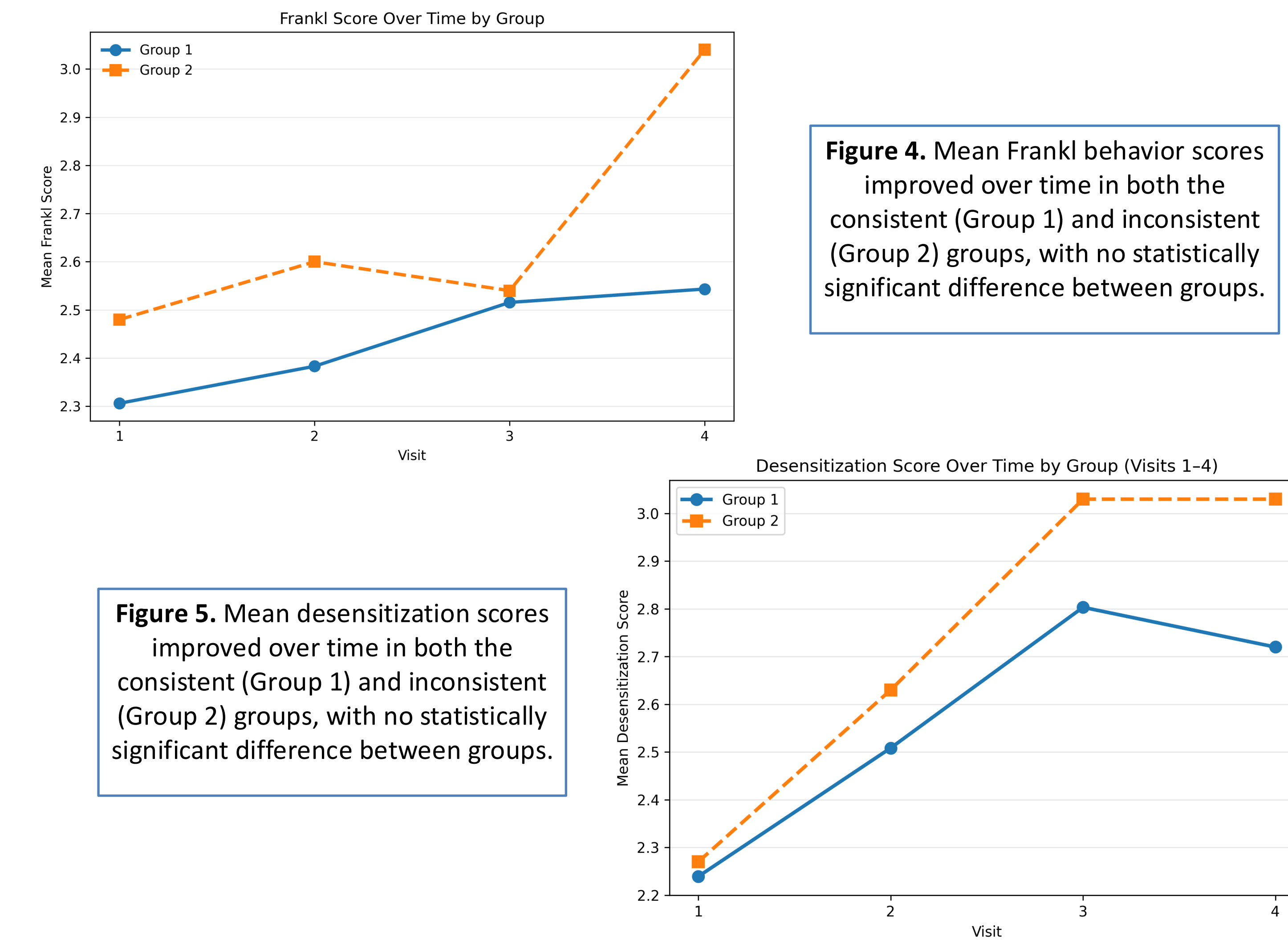
Methods

Retrospective chart review of pediatric patients (0–17 years) with ASD treated at Tufts University School of Dental Medicine (April 9, 2025–March 1, 2026). A standardized desensitization template documented behavior and tolerance across visits. Patients with ≥ 2 visits were categorized as consistent or inconsistent based on follow-up adherence. Variables included age, sex, visit dates, Frankl scores, and tolerance to progressively invasive dental tasks. Data were analyzed using descriptive statistics and a generalized linear mixed model ($P < .05$).

Results



Results (Continued)



Conclusion

Although no statistically significant differences were observed, both groups demonstrated improved behavior over time, suggesting repeated exposure to the dental environment may play a key role in behavioral adaptation. Larger sample sizes are needed to further evaluate the effect of desensitization.

References

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