

Impact of Sensory-Adapted Dental Environment on Behavioral Outcomes Among Children

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INTRODUCTION

- The Special Day Foundation (SpDF) is a nonprofit organization that has been providing dental care to individuals with intellectual and developmental disabilities (IDD/DD) at the University of Florida Naples Children and Education Foundation (NCEF) pediatric dental clinic in Naples, FL, since July 2022
- The program features a separate clinic entrance, a spacious waiting room with sensory-friendly toys, and a sensory-adapted dental environment (SADE) that opened in October 2022
- Existing literature reveals that SADEs, supports gradual desensitization while aiming to enhance patient cooperation, particularly for those with autism spectrum disorder (ASD)

OBJECTIVE

This study aims to assess the impact of sensory room visits on behavioral outcomes on Special Day Foundation patients in Naples, Florida

MATERIALS and METHODS

- Retrospective analysis of 219 pediatric patient charts from the NCEF Pediatric Dental Clinic, spanning from October 2022 to August 2024
- Patients treated under sedation following a sensory room visit were excluded, leaving 135 patient charts
- Behavior was classified according to the Frankl Behavioral Rating Scale
- Medical diagnoses, frequency of sensory room visits, and treatments completed over 3 consecutive appointments were analyzed
- Univariate and bivariate analyses, along with chisquare tests, were performed using a 95% confidence interval (CI)

TABLE AND GRAPHS

Room (± SD)

Male



PHOTOS



Image 1: Sensory room waiting area



Image 2: Sensory room entrance



Image 3: Inside of the sensory room operatory

RESULTS

- Chi-square: P<.05

CONCLUSION

Regular use of the sensory room may lead to improved cooperation for SpDF patients, suggesting benefits of SADEs for children with special healthcare needs

- (Frankl 3 and 4)
- this population



• A statistically significant difference was observed in Frankl behavior ratings between Visits 1 and 3, P<.05. No significant difference was observed between Visit 1 and 2; *P*>.05

• The combined Frankl ratings for patients with autism shows that a higher percentage of patients demonstrated positive behavior (Frankl 3 & 4) during Visit 3 compared to Visit 1,

Patients who completed 3 visits to the sensory room are more likely to have Frankl ratings of positive and definitely positive

Overall, the ASD patient group demonstrates behavioral improvement over time, indicating the potential benefits of SADEs for

Given the small sample size, larger clinical trials are necessary to assess whether these trends are clinically significant

