

Woodhull

## BACKGROUND

- Autism spectrum disorder (ASD) is being diagnosed in children at a higher rate than ever before, with a slight predilection to males, and in children of all ethnic and socioeconomic backgrounds in America. As of 2022, an estimated 11.4% of all children aged 3-17 have ever been diagnosed with attention deficit hyperactivity disorder (ADHD).
- Children with ASD oftentimes have hypersensitivities to certain stimuli, making dental treatment more difficult, being as the dental clinic is filled with triggering stimuli such as sudden loud noises, bright lights, and uncomfortable tactile sensations. Children with ADHD often have impulsive behaviors and short attention spans, posing challenges to dental treatment as well.
- Patients with ASD and/or ADHD often require more extensive and stimuli-specific techniques to help them successfully complete dental assessment and treatment.

## Objectives

- To determine which behavior management techniques used in clinic parents of pediatric patients with autism and/or ADHD perceived to have helped their child successfully complete treatment and/or recalls
- To assess if there is a specific sensory category of techniques that garners more success than others according to parents' perceptions
- To assess if there are any relationships between specific techniques chosen, sensory category chosen, and sensory stimuli that parents are aware their child is sensitive to

# METHODS

- 7-question survey distributed to the parents/legal guardians of pediatric dental or medical patients who are aged 5-18 at Woodhull Medical Center and are diagnosed with autism spectrum disorder (ASD) and/or attention deficit hyperactivity disorder (ADHD)
- Survey consisted of questions asking what the patient had done at their dental appointment, and providing them with a list of different behavior management techniques, asking them to rank which techniques they feel helped their child best Behavior management techniques that they were asked to rank included: voice control, TV/iPad watching, tell-show-do/age appropriate explanations, music, tactile desensitization, weighted apron, protective stabilization, holding onto comfort items, operating room, and pharmacological management
- Participants were also asked if there were any specific sensory stimuli that they know of that their child is sensitive to
- Statistical analysis was conducted using t-tests and chisquared tests

## Assessment of Types of Behavior Management Techniques that lead to successful examination and treatment appointments in pediatric patients with autism and ADHD Arielle Pistiner, DDS, PGY2, Jessica Barzideh, DMD, Sumitra Golikeri, DMD

## RESULTS

- number of participants that selected a given technique (light blue bars, Figure 1) and average rank score that the participant gave a given technique, with the lower rank closer to the numerical value 1 representing the "best" in their opinion (dark blue bars, Figure 1)
- The behavior management technique parents perceived to have helped their child with ASD and/or ADHD the most in the pediatric dental clinic was television/iPad watching, with 30 participants selecting this technique  $(p=0.037 \rightarrow significant)$
- The sensory category that parents perceived to have helped their child with ASD and/or ADHD the most in the pediatric dental clinic was **auditory**  $(p=0.012 \rightarrow significant)$







Behavior management techniques were assessed in this study by the total

- options offered on the survey
- smell)

- their practices





### DISCUSSION

This study demonstrated that there is a statistical difference in the amount of participants who chose television/iPad watching as the behavior management technique that they feel helped their child the most in the pediatric dental clinic compared to all other technique

This study demonstrated that there is a statistical difference in **auditory** being the sensory category that the most of the "best" ranking techniques fell into compared with all other sensory categories (visual, tactile, taste,

Many of the techniques listed on the survey fell into multiple sensory categories (i.e. "tell-show-do" representing auditory-visual-tactile, television/iPad watching representing auditory-visual, etc.)  $\rightarrow$  with this taken into consideration, all of the "top" choices (first 4 techniques on Figure 1) contained an auditory aspect

When looking at the data of parents reporting any sensory stimuli that they are aware their child is sensitive to, the greatest response was **loud noises**. This is interesting to note, being as though the sensory category that parents perceived to help their child the most was **auditory** 

This information opens the door for further research on exactly what about auditory stimulation either triggers or eases the brain of a child with autism and/or ADHD and how pediatric dentists can incorporate this information into

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