

Impact of OHI Presentations for Parents of Children with ASD Rose Shakib DDS, Chung J PhD, MS, BA/BS, Levi-Minzi MA PhD. College of Dental Medicine, Nova Southeastern University– Fort Lauderdale, FL

INTRODUCTION

- Autism Spectrum Disorder (ASD) refers to a range of conditions characterized by challenges in communication, social interactions, and sensorimotor deficits.
- Children with special needs, specifically ASD, often require additional interventions when it comes to oral hygiene and treatment in the dental setting.
- Caries affects 60-90% of school children and most adults in industrialized countries, and children with ASD have been found to have higher caries rates.
- Studies have shown that many children with ASD often experience an increased risk for caries, lower salivary pH and buffering capacity, and poorer oral hygiene.
- Caregivers of children with ASD have a significant impact on their children's oral care through assisting with meeting their dental needs, organizing dental appointments, and affecting their children's perception toward dental care.

PURPOSE

This study seeks to assess the oral health knowledge of parents with children who have ASD before and after educational intervention. This study also evaluates caregiver attitude toward their children's oral health and willingness to assist with their children's oral hygiene routines before and after educational intervention.

METHODOLOGY

DATA COLLECTION

- Parents (N=24) of children between the ages of 3 and 18 years old who have ASD and are enrolled in the South Florida Autism Charter School were recruited.
- Participants completed a pre-presentation survey to assess baseline oral health habits and evaluate their attitude towards dental care for children with special needs.
- Following the pre-presentation survey, a lecture was presented by the principal investigator and participants completed a post-presentation survey to assess the effectiveness of the presentation on improving oral health knowledge and attitudes among parents of children with ASD.

DATA ANALYSIS

- The attitude assessment consisted of 7 Likert scale questions, with answers ranging from five (strongly agree) to one (strongly disagree); possible scores could range from 7-35, with higher scores indicating more positive attitudes.
- Dental knowledge was assessed using 13 true/false questions; possible scores could range from 0-13, with higher scores indicating higher levels of knowledge.
- Descriptive statistics and t-tests were calculated to measure changes in knowledge and attitudes related to oral health. Descriptive statistics and t-tests were calculated to measure changes in knowledge and attitudes related to oral health.

RESULTS

The dental health of my child is very important.

Attitude Assessmen

- A. Strongly agree B. Agree
- C. Neither agree or disagree
- D. Disagree
- E. Strongly disagree
- 2. Taking my child to the dentist is important
 - A. Strongly agree B. Aaree
 - C. Neither agree or disagree
 - D. Disagree
 - E. Strongly disagree

3. Taking my child to the dentist for a regular check-up, even if they may not have cavities, is important.

- A. Strongly agree
- D. Disagree
- E. Strongly disagree

4. The idea of taking my child to the dentist stresses me out.

- A. Strongly agree
- B. Agree
- C. Neither agree or disagree
- D. Disagree E. Strongly disagree
- 5. How likely are you to take your child to the dentist?
 - A. Highly likely
 - B. Slightly likely
 - C. Unlikely D. Highly unlikely
- 6. How likely are you to help your child with brushing or flossing?
 - A. Highly likely
 - B. Slightly likely
 - C. Unlikelv
- D. Highly unlikely . How likely are you to simulate a typical dental visit at home with your child to get them
- accustomed prior to their dental appointment? A. Highly likely
 - B. Slightly likely
 - C. Unlikely
 - D. Highly unlikely

Dental Knowledge

8. Children with Autism Spectrum Disorder often take medications that can increase the risk of dental cavities.

A. True B. False 9. Children with Autism Spectrum Disorder often take medications that can increase the risk of gingivitis

A. True B. False 10. Children with Autism Spectrum Disorder often require desensitization prior to dental treatment

A. True B. False

- 11. Children with Autism Spectrum Disorder require special considerations when it comes to their dental treatment.
- A. True B. False 12. Children with Autism Spectrum Disorder are at increased risk for dental cavities.
- A. True B. False

13. 10-15 minutes is the optimal length of a dental visit for a child with Autism Spectrum Disorder

A. True B. False 14. Sensory stimuli (noises, lights, smells) should be minimized as much as possible during dental treatment.

A. True B. False 15. It is important to schedule each dental appointment at the same time and day of the week.

A. True B. False 16. It is important to schedule each dental appointment with the same dentist if possible.

A. True B. False 17. Children with Autism Spectrum Disorder are more likely to eat soft, sugary foods.

A. True B. False 18. Children with ASD have difficulty coordinating their tongue movements, making it more difficult to swallow food. A. True B. False

19. The rate of dental injuries for children with Autism Spectrum Disorder is higher. A. True B. False

20. You should take your child to the dentist approximately 1-2 times a year for a check-

A. True B. False

Descriptive Statistics (Table 1)				
	Ν	%		
Child gender				
Girl	4	16.7%		
Boy	20	83.3%		
Child race				
White	3	12.5%		
Black or AA	6	25.0%		
Hispanic or Latino	15	62.5%		
Child diagnosed with				
ASD	24	100%		
Yes				

Overview of Child's Oral Health (Table 2)

	Ν	%
Child ever visited the dentist		
Yes	22	91.7%
No	2	8.3%
Child's behavior in the dental		
office		41 7%
Strongly negative	10	12 5%
Negative	3	37.5%
Positive	9	4 2%
Stronaly positive	1	4.2%
N/A	1	,.
Do you brush child's teeth at		
home		91.7%
Yes	22	8.3%
Other	2	
Do you floss your child's		
teeth at home? ¹		29.2%
Yes	7	66.7%
No	16	
I find it difficult to brush my		
child's teeth		16.7%
Strongly agree	4	16.7%
Agree	4	20.8%
Neither agree nor disagree	5	20.8%
Disagree	5	16.7%
Strongly disagree	4	8.3%
Not applicable	2	
I find it difficult to floss my		
child's teeth		41.7%
Strongly agree	10	25.0%
Agree	6	8.3%
Neither agree nor disagree	2	16.7%
Disagree Not applicable	4	8.3%
I have used the following to	Z	
help my child accept the		33 3%
toothbrush		37.5%
Toothbrushes of different		16.6%
textures and designs	8	12.5%
Electric toothbrush	8	0 / 0
Other	4	
None	3	
Frequency of dental visits ¹		
Once every few years	3	13.0%
Once a year	13	54.2
Twice or more a year	4	16.7%
I cannot remember the last	3	13.0%
time I took my child to the		
dentist		
data missing for 1 participant		

Attitude Scale

For this sample, the mean score on the attitude scale pre-lecture was 30.58 (SD=2.81), and scores ranged from 24-34. The mean score on the attitude scale post-lecture was 31.42 (SD=3.20), with scores ranging from 22-35.

Knowledge Scale 2-13.

Assessment	Pre-Lecture Mean(SD)	Post-Lecture Mean(SD)	p value	
Attitude Scale	30.58 (2.81)	31.42 (3.20)	0.015	
Knowledge Scale	9.08 (3.30)	11.33 (2.85)	0.001	
¹ data missing for 1 participant				

REFERENCES







RESULTS

For this sample, mean score on the knowledge scale pre-lecture was 9.08 (SD=3.30), with scores ranging from 2-13. The mean score on the attitude scale post-lecture was 11.33 (SD=2.85), with scores ranging from

> T-tests indicate that the educational lecture positively changed caregiver attitudes toward oral health habits. There was a significant increase in mean scores pre-lecture (30.58) and post-lecture (31.42), *p*=0.015.

T-tests indicate that the educational lecture significantly impacted caregiver knowledge related to oral health. There was a significant increase in mean scores pre-lecture (30.58) and post-lecture (31.42), *p*=0.015.

CONCLUSIONS

• For parents of children with Autism, the oral health presentation positively changed parent attitudes toward oral hygiene habits and showed an increase in the willingness of parents to assist their children with their oral hygiene routines.

• This approach helps emphasize to parents the importance of dental care and home hygiene, which can potentially create a lasting change in the child's future dental care.

• The oral health presentation also resulted in impacting caregiver knowledge positively, leading to an overall better understanding of dental care for children with Autism.

• The intervention serves as a low cost and quick way to provide extensive information about ASD and oral health care, especially for families with limited access and little time.



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