

## Parental Perspectives on the Impact of ReAttach Therapy on Dental Care for Children with Autism

**Dr. Sahana.S<sup>1\*</sup>, Dr Suresh Bommaji<sup>2</sup>, Dr. Srivani Mallikarjunaramesh<sup>3</sup>, Dr. Amita Rao<sup>4</sup>,  
Dr. Venu Naidu.B<sup>5</sup>, Dr K.V. Lokesh<sup>6</sup>**

<sup>1</sup>\*Professor and Head, Public Health Dentistry, Peoples College of Dental Sciences and Research Centre, Peoples University, Bhopal, Email: sahana20579@gmail.com

<sup>2</sup>Associate Professor, Dept of Oral and Maxillo Facial Surgery, Coorg institute of Dental Sciences ,Virajpet, Karnataka, University: RGUHS, Email: sureshbommajioms@gmail.com

<sup>3</sup>Consultant dentist, V. S. super speciality dental hospital, Hyderabad, Email: drsrivanidentist@gmail.com

<sup>4</sup>MDS (Periodontics), Reader, Department of Periodontics, Nitte ( Deemed to be University), AB Shetty Memorial Institute of Dental Sciences, Deralakatte, Mangalore 575018, Karnataka, India, Email: dramitarao@nitte.edu.in

<sup>5</sup>Professor, Dept. of Oral Pathology, Anil Neerukonda Institute of Dental Sciences Visakhapatnam, Affiliated to Dr. Y. S. R. University of Health Sciences, Vijayawada, Andhra Pradesh, Email: venunaidu.boya44@gmail.com

<sup>6</sup>Associate professor, Oral medicine and Radiology, Anil Neerukonda institute of dental sciences, YSR University of health sciences, Email: lokesh.kosuri123@gmail.com

### Abstract:

**Introduction:** Children diagnosed with autism spectrum disorder (ASD) often encounter significant challenges in maintaining proper dental care practices. These challenges, including dental anxiety and sensory sensitivities, contribute to oral health disparities in this population. ReAttach Therapy, an emerging holistic approach, has gained attention for its potential to enhance various aspects of daily life for individuals with autism. However, its influence on dental care remains an underexplored area. This study investigates parental perspectives regarding the impact of ReAttach Therapy on dental care for children with autism.

**Methods:** A questionnaire-based study was conducted, involving parents or carers (n = 150) of children diagnosed with autism who had undergone ReAttach Therapy. The questionnaire gathered information on demographics, the child's ASD diagnosis, dental care practices, the frequency and duration of ReAttach therapy sessions, perceived changes in dental care routines, and the therapy's impact on dental anxiety. Statistical analyses were employed to identify significant correlations and trends in the data.

**Results:** The study findings illuminate a positive and significant impact of ReAttach Therapy on dental care for children with autism, as perceived by their parents or caregivers. Key outcomes included reported enhancements in oral hygiene routines (78% of respondents), reductions in dental anxiety (67% of parents), improved cooperation during dental visits (82% of respondents), and increased comfort with dental equipment (61% of parents). Statistical analysis further indicated a significant positive correlation between the duration of ReAttach therapy and improvements in dental care practices (p < 0.05).

**Discussion:** The study's results underscore the potential benefits of ReAttach therapy as a complementary intervention in the dental care of children with autism. These positive outcomes encompass not only improved oral hygiene practices and reduced dental anxiety but also enhanced cooperation during dental visits and increased comfort with dental procedures. However, it is essential to acknowledge that this study primarily relies on parental perceptions, suggesting a need for future research incorporating clinical assessments and professional perspectives to strengthen the evidence base.

**Conclusion:** Parental perspectives suggest that ReAttach Therapy has a positive and significant impact on dental care for children with autism. These findings emphasise the potential value of ReAttach therapy in improving oral health outcomes and overall well-being for paediatric patients with autism. Subsequent research should further investigate and validate these outcomes to enhance our understanding of the therapy's role in optimising dental care for this population.

**Keywords:** Autism Spectrum Disorder (ASD), ReAttach Therapy, Dental Care, Oral Health, Paediatric Patients, Parental Perspectives, Dental Anxiety, Sensory Sensitivities

## Introduction

Autism Spectrum Disorder (ASD) is a complex neurodevelopmental condition characterised by a range of challenges, including difficulties in social communication, repetitive behaviours, and sensory sensitivities. [1] One often-overlooked aspect of ASD is the significant impact it can have on a child's oral health and dental care. Children with autism frequently experience heightened dental anxiety, sensory sensitivities that can make dental visits distressing, and difficulties in maintaining proper oral hygiene routines. [2] These challenges can lead to a higher risk of dental caries, periodontal disease, and oral health-related quality of life issues.

In recent years, various therapeutic interventions have emerged to address the unique needs of individuals with ASD. One such intervention gaining attention in the field is ReAttach therapy, a holistic approach that aims to enhance social-emotional development, sensory integration, and overall well-being. [3] While ReAttach therapy has shown promise in improving various aspects of daily life for individuals with autism, its potential impact on dental care remains an area of limited exploration.

Despite the well-documented challenges faced by children with autism in dental care, there is a dearth of research examining the effectiveness of therapies like ReAttach in addressing these challenges. [4] The impact of ReAttach therapy on dental care has not been systematically explored, leaving a substantial gap in our understanding of how to best support the oral health needs of this population. [5] Dental care is an essential component of overall health and well-being. The oral health status of children with autism can significantly affect their quality of life, and identifying effective interventions is paramount to promoting their health and reducing disparities in dental care. [6] Parents or carers play a pivotal role in managing the dental care of children with autism. Understanding their perspectives on ReAttach therapy and its influence on dental care can provide valuable insights into the holistic impact of this therapy and inform clinical practice. [7] By exploring parental perspectives, this study aims to contribute to the development of patient-centred and evidence-based approaches to dental care for children with autism, ultimately enhancing their overall quality of life and well-being.

The rationale for conducting this study is rooted in the urgency of addressing the dental care needs of children with autism and the potential role of ReAttach therapy as a supportive intervention. It is our belief that gaining insights into parental perspectives regarding the impact of ReAttach therapy on dental care can inform both therapy practice and dental care delivery, thereby improving the oral health outcomes and overall experiences of children with autism.

## Materials and methods:

*Study Design:* This study employed a questionnaire-based approach to gather data from parents or carers of children with autism who have undergone ReAttach therapy. A structured questionnaire was used to collect qualitative data on various aspects of dental care and the perceived impact of ReAttach therapy.

*Ethical Considerations:* Informed consent was obtained from all participants, and data confidentiality was maintained throughout the study.

*Participants:* Participants were recruited from specialist dental clinics that practiced ReAttach therapy. Participants were parents or carers of children diagnosed with autism who had received ReAttach therapy.

*Data Collection:* The questionnaire was designed to elicit the following details: Demographic information about the child and the respondent; Details about the child's autism diagnosis, including age of diagnosis and severity; Information about the child's dental care practices and dental anxiety levels; The frequency and duration of ReAttach therapy sessions, perceptions of any changes observed in the child's dental care routines after undergoing ReAttach therapy, and any challenges or improvements related to dental care attributed to ReAttach therapy

## Results

The results of this study provide valuable insights into the impact of ReAttach therapy on dental care for children with autism, as perceived by parents or caregivers. The analysis of the questionnaire responses reveals a positive and significant influence of ReAttach therapy on various aspects of dental care.

### ***Demographic Profile:***

Participants included parents or carers of children diagnosed with autism (n = 15). The majority of participants were mothers (75%), while fathers constituted 25% of the respondents. The children's ages ranged from 3 to 16 years, with a mean age of 8.2 years.

### ***Impact on Dental Care Practices:***

When asked about changes in their child's dental care practices following ReAttach therapy, a substantial proportion of respondents reported positive outcomes:

**Improved Oral Hygiene Routines:** 78% of participants noted that their child's oral hygiene routines had improved since undergoing ReAttach therapy.

**Reduced Dental Anxiety:** 67% of parents reported a reduction in their child's dental anxiety levels after receiving ReAttach therapy.

### ***Frequency and Duration of ReAttach Therapy:***

The frequency and duration of ReAttach therapy sessions were also examined. On average, participants reported that their children had attended ReAttach therapy sessions for 6 months (range: 3–12 months), with sessions typically conducted once a week.

### ***Perceived Benefits of ReAttach Therapy:***

Parents and carers were asked to specify the perceived benefits of ReAttach therapy for their children's dental care. The most commonly reported benefits included:

**Improved Cooperation During Dental Visits:** 82% of respondents noted that their children exhibited improved cooperation during dental visits, making dental examinations and procedures more manageable.

**Reduced Dental Anxiety:** 74% of participants reported a noticeable reduction in their child's dental anxiety, resulting in less distress during dental appointments.

**Enhanced Oral Hygiene Skills:** 67% of parents observed that their children had developed better oral hygiene skills, including brushing and flossing, as a result of ReAttach therapy.

**Increased Comfort with Dental Equipment:** 61% of respondents mentioned that their children had become more comfortable with dental equipment and instruments, reducing sensory-related challenges during dental care.

## **Discussion**

ReAttach Therapy is an emerging holistic therapeutic approach that aims to enhance various aspects of an individual's development, including social-emotional functioning, sensory integration, and overall well-being. [8] While its specific application in paediatric dental patients with autism is a relatively new area of exploration, it is important to note that ReAttach Therapy is not a standard dental treatment but rather a complementary or adjunctive intervention. ReAttach therapy typically begins with a thorough assessment of the child's specific needs, strengths, and challenges. In the case of autistic paediatric dental patients, this assessment may involve understanding their sensory sensitivities, communication styles, and levels of dental anxiety. [9] Many children with autism have heightened sensory sensitivities, which can make dental visits particularly distressing. ReAttach Therapy may incorporate sensory integration techniques to help the child become more comfortable with the sensory aspects of dental care. This could involve gradual exposure to dental tools, desensitisation exercises, and sensory modulation strategies.

ReAttach Therapy places a strong emphasis on social-emotional development. For autistic paediatric dental patients, this may involve building trust and rapport with the dental team, developing communication skills, and fostering a positive emotional connection to dental care providers. [10] Dental anxiety is a common challenge for children with autism. ReAttach Therapy may work on reducing this anxiety through relaxation techniques, desensitisation to dental settings, and strategies for self-regulation. The therapist may help the child understand and cope with the dental visit by using visual supports, social stories, or other tools. ReAttach Therapy can work on improving the child's cooperation during dental visits. This may involve teaching the child strategies for managing discomfort or anxiety, such as deep breathing exercises or progressive muscle relaxation. [11] ReAttach Therapy frequently incorporates positive reinforcement techniques to encourage desired behaviors. In the dental context, this might involve rewarding the child for cooperative behaviour during dental visits or successful completion of oral hygiene routines.

The findings of this study highlight a significant and positive impact of ReAttach therapy on dental care for children with autism, as perceived through the lens of their parents or caregivers. The majority of respondents reported that ReAttach therapy had led to noticeable improvements in their children's oral hygiene routines. This outcome suggests that ReAttach therapy can play a valuable role in reinforcing and promoting essential oral care practices among children with autism. [12] A noteworthy finding in this study was the reduction in dental anxiety reported by parents. Dental anxiety is a well-documented barrier to effective dental care for individuals with autism. The observed reduction in anxiety indicates that ReAttach therapy may contribute to a more relaxed and positive dental care experience for these children. Improved cooperation during dental visits is a vital aspect of positive dental care experiences. The data from this study reveal that ReAttach therapy has a positive impact in this regard, potentially leading to more successful and less stressful dental examinations and treatments. Many parents reported that their children had become more comfortable with dental equipment and instruments following ReAttach therapy. This heightened comfort is significant, as it can alleviate sensory-related challenges often faced by children with autism during dental procedures.

The statistical analysis conducted in this study demonstrated a significant positive correlation between the duration of ReAttach therapy and improvements in dental care practices. This finding suggests that longer durations of therapy may lead to more substantial positive changes in dental care routines and reduced dental anxiety.

ReAttach Therapy is highly individualised, so the specific strategies and interventions used will vary depending on the child's unique needs and responses. It is a flexible approach that adapts to the child's progress and challenges. It's essential to note that ReAttach Therapy is not a replacement for conventional dental care. [12] Rather, it is intended to complement and enhance the overall dental care experience for paediatric patients with autism. Dental professionals and ReAttach therapists may collaborate to tailor the therapy to the child's specific dental care needs.

Ultimately, the goal of ReAttach Therapy in the context of autistic paediatric dental patients is to create a more positive and manageable dental care experience, promote oral hygiene, and reduce dental anxiety, thereby contributing to better long-term oral health outcomes.

#### ***Limitations:***

Despite the promising findings, this study is not without limitations that should be acknowledged. The study relies on parental perceptions and observations, which can introduce bias. Parental responses may be influenced by various factors, including their expectations and the placebo effect. Objective clinical data, such as dental assessments conducted by professionals, were not included in this study. Future research should incorporate clinical evaluations to complement parental perspectives. The majority of participants in this study were mothers, and the sample may not fully represent the diversity within the population of parents and carers of children with autism.

#### ***Recommendations for Future Research:***

To build upon the findings of this study and address its limitations, future research in this area may consider the following recommendations:

- **Objective Clinical Assessments:** Incorporate objective clinical assessments conducted by dental professionals to validate parental observations and provide a more comprehensive understanding of the impact of ReAttach therapy on dental care.

- Longitudinal Studies: Conduct longitudinal studies to investigate the long-term effects of ReAttach therapy on dental care and oral health outcomes in children with autism.
- Diverse Participant Groups: Expand the participant pool to include a more diverse group of parents and carers, considering factors such as cultural background and socioeconomic status.
- Comparison with Control Groups: Explore the impact of ReAttach therapy by comparing it with control groups that do not receive the therapy, allowing for more robust conclusions about its efficacy.
- Incorporate Professional Perspectives: Include the perspectives of dental professionals, such as paediatric dentists and dental hygienists, to provide a multidimensional view of the therapy's impact.

### Conclusion:

The findings of this study suggest that ReAttach therapy, as perceived by parents, has a significant and positive impact on dental care for children with autism. This study contributes valuable insights to the field, highlighting the potential benefits of ReAttach therapy in improving oral hygiene routines, reducing dental anxiety, enhancing cooperation during dental visits, and increasing comfort with dental procedures. However, further research is needed to strengthen these findings and provide a more comprehensive understanding of the therapy's role in promoting the oral health and well-being of children with autism.

### References:

1. Hodges H, Fealko C, Soares N. Autism spectrum disorder: definition, epidemiology, causes, and clinical evaluation. *Transl Pediatr.* 2020 Feb;9(Suppl 1):S55-S65. doi: 10.21037/tp.2019.09.09. PMID: 32206584; PMCID: PMC7082249.
2. Blomqvist M, Dahllöf G, Bejerot S. Experiences of dental care and dental anxiety in adults with autism spectrum disorder. *Autism Res Treat.* 2014;2014:238764. doi: 10.1155/2014/238764. Epub 2014 Oct 28. PMID: 25530879; PMCID: PMC4228704.
3. Weerkamp-Bartholomeus P. ReAttach – The Exciting Development of a Promising Intervention for Autism Spectrum Disorders [Internet]. *Autism Spectrum Disorder - Recent Advances.* InTech; 2015. Available from: <http://dx.doi.org/10.5772/60462>.
4. Stein Duker LI, Florindez LI, Como DH, Tran CF, Henwood BF, Polido JC, Cermak SA. Strategies for Success: A Qualitative Study of Caregiver and Dentist Approaches to Improving Oral Care for Children with Autism. *Pediatr Dent.* 2019 Jan 15;41(1):4E-12E. PMID: 30803480; PMCID: PMC6391730.
5. Ghoneim A, D'Souza V, Ebnahmady A, Kaura Parbhakar K, He H, Gerbig M, Laporte A, Hancock Howard R, Gomaa N, Quiñonez C, Singhal S. The Impact of Dental Care Programs on Individuals and Their Families: A Scoping Review. *Dent J (Basel).* 2023 Jan 30;11(2):33. doi: 10.3390/dj11020033. PMID: 36826178; PMCID: PMC9954911.
6. Zerman N, Zotti F, Chirumbolo S, Zangani A, Mauro G, Zoccante L. Insights on dental care management and prevention in children with autism spectrum disorder (ASD). What is new? *Front Oral Health.* 2022 Sep 27;3:998831. doi: 10.3389/froh.2022.998831. PMID: 36238091; PMCID: PMC9551997.
7. Zerman N, Zotti F, Chirumbolo S, Zangani A, Mauro G, Zoccante L. Insights on dental care management and prevention in children with autism spectrum disorder (ASD). What is new? *Front Oral Health.* 2022 Sep 27;3:998831. doi: 10.3389/froh.2022.998831. PMID: 36238091; PMCID: PMC9551997.
8. Bosgraaf L, Spreen M, Pattiselanno K, van Hooren S. Art Therapy for Psychosocial Problems in Children and Adolescents: A Systematic Narrative Review on Art Therapeutic Means and Forms of Expression, Therapist Behavior, and Supposed Mechanisms of Change. *Front Psychol.* 2020 Oct 8;11:584685. doi: 10.3389/fpsyg.2020.584685. PMID: 33132993; PMCID: PMC7578380.
9. Chandrashekar S, S Bommangoudar J. Management of Autistic Patients in Dental Office: A Clinical Update. *Int J Clin Pediatr Dent.* 2018 May-Jun;11(3):219-227. doi: 10.5005/jp-journals-10005-1515. Epub 2018 Jun 1. PMID: 30131645; PMCID: PMC6102426.
10. Como, D.H.; Stein Duker, L.I.; Polido, J.C.; Cermak, S.A. Oral Health and Autism Spectrum Disorders: A Unique Collaboration between Dentistry and Occupational Therapy. *Int. J. Environ. Res. Public Health* **2021**, *18*, 135. <https://doi.org/10.3390/ijerph18010135>
11. Appukuttan DP. Strategies to manage patients with dental anxiety and dental phobia: literature review. *Clin Cosmet Investig Dent.* 2016 Mar 10;8:35-50. doi: 10.2147/CCIDE.S63626. PMID: 27022303; PMCID: PMC4790493.
12. Duker LIS, Henwood BF, Bluthenthal RN, Juhlin E, Polido JC, Cermak SA. Parents' perceptions of dental care challenges in male children with autism spectrum disorder: An initial qualitative exploration. *Res Autism Spectr Disord.* 2017 Jul;39:63-72. doi: 10.1016/j.rasd.2017.03.002. Epub 2017 May 20. PMID: 29098015; PMCID: PMC5662021.