

## DENTAL TREATMENT FOR CHILDREN WITH ASD: AN APPROACH BASED IN THE TEACCH PROGRAM

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**Ana Laura Rolindo**

``Instituto Brasileiro de Pós-graduação``  
(IBPG-DF)

<http://lattes.cnpq.br/1896346632613994>

**Julyana Amorim de Carrijo**

``Universidade Estadual de Goiás``, Unit:  
Ceres (UnU-Ceres-Go)

<http://lattes.cnpq.br/9567743227226770>

**Laís Bárbara Ferreira**

``Universidade Federal de Goiás`` (UFG-Go)

<http://lattes.cnpq.br/9791992731928327>

<https://orcid.org/0000-0002-8804-1960>

**Mariana Sofia Ferreira Alencar**

``Universidade Estadual de Goiás``, Unit:  
Ceres (UnU-Ceres-Go)

<http://lattes.cnpq.br/7008049793452475>

<https://orcid.org/0009-0009-3267-1945>

**Matheus Henrique Barcelos Figueiredo**

``Universidade Estadual de Goiás``, Unit:  
Ceres (UnU-Ceres-Go)

<http://lattes.cnpq.br/6385376605801305>

<https://orcid.org/0000-0002-0249-3211>

**Joicy Mara Rezende Rolindo**

``Universidade Evangélica de Goiás``  
(UniEVANGÉLICA-GO)

<http://lattes.cnpq.br/2138086247440898>

<https://orcid.org/0000-0002-0102-3314>

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**Alessandra Patrícia Cardoso Tavares**

``Universidade Estadual de Goiás``, (UnU-Ceres-Go)

<http://lattes.cnpq.br/3736702119322774>

<https://orcid.org/0009-0009-7359-3605>

**Meillyne Alves dos Reis**

``Universidade Estadual de Goiás``, Unit: Ceres (UnU-Ceres-Go)

<http://lattes.cnpq.br/3752988192749082>

<https://orcid.org/0000-0001-5953-4398>

**Abstract:** This study deals with dental treatment for children with Autism Spectrum Disorder (ASD). Children with ASD are generally resistant to dental treatment and require the dental professional to develop a patient care program that involves their daily life and also their family. In this context, the research focused on the following research question: how can it be possible to minimize or overcome the obstacles encountered in dental care for children with Autism Spectrum Disorder (ASD)? To answer this question, this study aimed to “describe the Treatment and Education of Autistic and related Communication handicapped Children (TEACCH) program and present different ways of approaching this program in adapting the environment and dental procedures to meet the needs of children with ASD”. Bibliographic and documentary research was carried out. We opted for exploratory-descriptive research with a qualitative approach. It was concluded that in-depth understanding and the use of appropriate techniques, such as the TEACCH program, can make a big difference in the autistic child’s experience and the effectiveness of dental treatment. The professional must have not only technical skills, but also relational ones; one must have planning skills, in preparing the environment in which the patient will be welcomed and the personal support they may need, such as the help of psychological counseling and qualified support from the family.

**Keywords:** Children, T.E.A, Dental treatment, T.E.A.C.C.H.

## INTRODUCTION

The World Health Organization (W.H.O., 2023) estimates that approximately one in every 100 children worldwide has Autism Spectrum Disorder (ASD). However, careful studies by the Centers for Disease Control and Prevention's (CDC) Autism and Developmental Disabilities Monitoring Network suggest incidence<sup>1</sup> even higher, reaching one case for every 36 children (Brasil, 2023).

For the first time, the topic was included in the 2022 Demographic Census in Brazil, and the results are currently in the process of being analyzed by the Brazilian Institute of Geography and Statistics (IBGE). However, the absence of data must not obscure the challenges faced by this part of the population and their families. (Pianegonda, 2023).

Ribeiro (2023) clarifies that Brazil's School Census revealed a significant increase of 280% in the number of students with Autism Spectrum Disorder (ASD) enrolled in public and private educational institutions, exclusively in the period between 2017 and 2021. In Brazilian territory, data from the World Organization of Health indicate the presence of approximately two million individuals with autism, although this estimate is considered outdated. A recent survey carried out by the United States Center for Disease Control and Prevention revealed that, in the 1970s, the rate of ASD diagnoses was around 1 for every 10,000 children. However, by 1995, this proportion had already increased to 1 in every thousand, maintaining a constant growth trajectory, reaching the mark of 1 in every 59 in 2018 and 1 in every 44, as indicated by the 2022 report.

Autism Spectrum Disorder (ASD), as defined in the American Psychiatric Association (APA) Diagnostic and Statistical

Manual of Mental Disorders V (DSM-5-TR), is characterized by persistent deficits that affect communication and social interaction in diverse contexts. These deficits include difficulties in social reciprocity, the expression of nonverbal behaviors used in social interaction, and the ability to develop, maintain, and understand relationships.

In addition to these challenges in the social sphere, the diagnosis of ASD also requires the presence of restricted and repetitive patterns of behavior, interests or activities. These disorders also fall into the category of Pervasive Developmental Disorders (GDD), which encompass conditions in which there is a common impact on developmental functions (Brasil, 2010).

The Manual on the Rights of People with Autism (2021) establishes that people with autism have the right to a dignified life, with full respect for their physical and moral integrity. This includes guarantees of access to healthcare, including diagnosis, multidisciplinary care and appropriate nutritional care, as well as the right to access necessary medicines. In addition, rights related to education, housing, opportunities in the job market and protection against any form of abuse or exploitation are guaranteed.

In the context of this research, Gace, Kelmendi and Fusha (2014) observed that recent studies indicate that children with ASD have poorer oral hygiene conditions compared to children without any cognitive deficits. The main reasons cited by the authors are reduced dexterity, diminished learning capabilities, sensory problems, nutritional deficiencies, greater affinity for sweets and atypical meal habits.

It must be added that caring for autistic patients is complex and requires a lot of dedication and patience on the part of dental professionals. Furthermore, parents or

1. Incidence is a measure of the occurrence of new cases during a specified period in a population at risk of having the disease. While prevalence refers to new cases and existing cases of the disease, incidence focuses only on new cases (Brazil, 2020)

guardians of these children need to receive guidance on the importance of caring for their children's oral hygiene, with the aim of preventing the emergence of oral diseases. It is important to note that scientific literature has highlighted the emotional overload faced by parents or caregivers of autistic children, with one of the main factors contributing to this overload being the limited accessibility to health services and social support (Campos et al., 2009).

This study is justified in addition to the researcher's interest in improving care for autistic children. Research in the dental field on how to care for these children is essential to ensure that they receive adequate care, promoting their oral health and quality of life, in addition to supporting their families and fulfilling the professional responsibility of providing inclusive care. Furthermore, research can help fill knowledge gaps and contribute to inclusion and equal access to oral health services.

Considering what was previously discussed about patients with ASD, this research addresses the topic of dental treatment for children with Autism Spectrum Disorder (ASD). The research focused on the following research question: how is it possible to minimize or overcome the obstacles encountered in dental care for children with Autism Spectrum Disorder (ASD)?

To answer this question, this study aimed to "describe the Treatment and Education of Autistic and related Communication handicapped Children (TEACCH) program and present different ways of approaching this program in adapting the environment and dental procedures to meet the needs of children with ASD". Based on this general objective, the following specific objectives were chosen: a) Provide a brief history of the patient with ASD, as well as describe some concepts of Autism Spectrum Disorder;

b) Explain the concept and principles of the TEACCH program and discuss its contribution to the treatment of children with ASD; c) Describe how the TEACCH method can be applied to adapt the environment and dental procedures to meet the specific needs of children with ASD.

Thus, in the second section, the research methodology will be presented. In the third section, the conceptual issues of Autism and a brief history of the patient with ASD, their main characteristics and behavior. The fourth section deals with the TEACCH program, its history, concept and the importance of dental treatment.

In the fifth section, some proposals for dental care for patients with ASD were discussed, emphasizing the TEACCH method.

## RESEARCH METHODOLOGY

For the development of this work, bibliographical research was used, based on scientific publications about dental patients with autism spectrum disorder, in addition to documentary research, including the Diagnosis and Statistical Manual of Mental Disorders (DSM) and the International Classification of Diseases and Related Health Problems (ICD). According to Gil (2010), bibliographic research is based on already published material. Traditionally, this type of research covers printed sources, such as books, magazines, newspapers, theses, dissertations and annals of scientific events. However, due to the dissemination of different information formats, these searches now also incorporate other sources, such as materials available on the internet.

Documentary research, according to Minayo (2010), is an approach that uses "materials that have not yet received any analytical treatment, or that can be reworked according to the research objectives". This means that documents can be explored in

different ways to meet the specific needs of an investigation.

Considering the complexity of the phenomenon to be researched and the various aspects that surround it, we opted for exploratory-descriptive research with a qualitative approach (Bogdan; Biklen, 1994). In exploratory research the objective is to better understand a certain topic, in descriptive research the aim is to delve deeper into the topic (Lakatos; Marconi, 2001). The qualitative approach for Minayo, (2003, p. 22) “delves deeper into the world of meanings of human actions and relationships, a side that is not perceptible and cannot be captured in equations, averages and statistics”.

## **HISTORY AND CONCEPT OF PATIENTS WITH AUTISM SPECTRUM DISORDER (ASD)**

Increasingly, developmental disorders are becoming the focus of intense discussions among researchers around the world, transcending the barriers of the health area to also reach the educational field. Autism, in particular, has emerged as one of those disorders that are highlighted both in the school context and in the social context.

In this section, we will explore the historical trajectory of Autism Spectrum Disorder (ASD) and discuss its concept, recognizing its evolution and meaning in the current scenario.

## **HISTORY OF THE PATIENT WITH AUTISM SPECTRUM DISORDER (ASD)**

The terminology “autism” was initially introduced in 1911 by Eugen Bleuler, a Swiss psychiatrist who used it in his studies to understand the characteristics of schizophrenia (Cunha, 2015). However, autistic disorder, childhood autism or infantile autism, was initially delineated by Kanner, in

1943, as “Autistic disorders of affective contact”. Kanner’s conclusions were based on the analysis of eleven cases with severe pathology and unique conditions, which he included, in addition to the inability to establish emotional contact, obsessive behaviors, echolalia and stereotypy (Kanner, 1943). The author’s conclusions led to ambiguous results about the origin of autism as:

Articulation with the personality of the parents and the type of early relationships established between them and the children; early form of schizophrenia; and specific nosological entity different from childhood schizophrenia, as the break with reality occurred from the beginning of life (Fernandes, Tomazelli; Girianelli, 2020, p. 1).

For Facion (2005), the discussion about innate disability gave rise to an organicist perspective, in which diseases are associated with dysfunctions of a biochemical, genetic or neuropsychological nature. The criteria that served as the basis for the diagnosis of autism underwent several transformations over time and were outlined in nosological classification manuals. The most recognized and widely used are the Diagnostic and Statistical Manual of Mental Disorders (DSM) and the International Classification of Diseases and Related Health Problems (ICD), particularly since the 1980s.

The first edition of the DSM, the American Psychiatric Association (APA) Manual, originated from the census data collection systems and psychiatric hospital statistics, as well as the United States Army manual, used for selection and monitoring of recruits. Dunker (2014) highlights that, in addition, it was influenced by Adolf Meyer’s diagnostic system, which emphasized the distinction between neurosis and psychosis. At this time, autism was categorized as a symptom of the “Infantile Schizophrenic Reaction” (APA, 1952).

In the second edition, autism was called “Infantile Schizophrenia” (APA, 1968) with few changes in relation to the previous edition (Fernandes; Tomazelli; Girianelli, 2020).

The first inclusion of autism in the ICD occurred in the sixth edition, implemented in 1950, when the classification began to be supervised by the World Health Organization (WHO). In this version of ICD-6, there was an expansion in the number of categories, including non-fatal diseases, and a section dedicated to mental disorders was introduced (Benedicto; Wai; Oliveira; Godoy; Costa, 2013). At that time, autism was categorized in the “Schizophrenic Disorders” section, maintaining this association with schizophrenia until the ninth edition (1979), when it became known as “Childhood Psychosis” or “Kanner Syndrome” (Vargas; Schmidt, 2011).

Dunker (2014) clarifies that, in 1977, the American Psychiatric Association (APA) formed a working group led by psychiatrist Robert Spitzer, with the objective of establishing descriptive criteria and observable symptoms based on evidence-based medicine approaches. In this context, the term “disease” was replaced by “disorder”, and the DSM-III was released in 1980. It was in this edition that autism began to be referred to as “Autistic Disorder” (Martinhago; Caponi, 2019).

Starting from the 1990s, the DSM-IV adopted a clearer perspective in relation to development, establishing connections with cognitive deficits (Assumpção; Pimentel, 2000, Gadia; Tuchman; Rotta, 2004) and approaching ICD-10 standards. Subsequently, the manual underwent a revision (DSM IV-TR), which introduced minor changes.

In the early years of the 21st century, conferences evaluated the literature on mental disorders and contributed to the development of the DSM-5 (American Psychiatric Association, 2014). From the DSM-5, autism

was reclassified as a neurodevelopmental disorder and received the name “Autistic Spectrum Disorders” (Araújo; Neto, 2014). This category unified several disorders previously part of Pervasive Developmental Disorders (PDD), differentiating them only by the severity of difficulties in interaction and communication. (Rodrigues, Silva, Lima; Costa, 2023).

The ICD-11, published in 2018, maintained the terminology “Autism Spectrum Disorder” and incorporated the changes made in DSM-5, although it reduced the subdomains that support the diagnosis.

Both DSM-5 and ICD-11 conceive autism as a single category or spectrum, with variations in severity, considering the functionality in DSM-5 or levels of intellectual disability and functional language in ICD-11. Both manuals also use the term “Autistic Spectrum Disorder” (ASD) to refer to autism (Fernandes; Tomazelli; Girianelli, 2020).

The categorization of Autism Spectrum Disorder (ASD) into three levels of need for assistance, as defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), plays a fundamental role in understanding and clinically approaching this disorder. These three levels help mental health professionals and educators to assess the level of impairment and specific needs of each individual with ASD. In Table 1, these levels are detailed:

This categorization is valuable because it allows professionals to adapt treatments and interventions according to each patient’s individual needs. Additionally, it helps families better understand the needs of the person with ASD and seek appropriate resources to offer support.

It is important to highlight that the diagnosis and categorization of the autism spectrum are complex, and individuals can evolve and respond differently to interventions over time. Therefore, a personalized and

| SEVERITY LEVEL      | SOCIAL COMMUNICATION   | BEHAVIOR   |
|---------------------|--|--|
| Level 1<br>Light    | In the absence of support, there are notable social losses, difficulties in initiating interactions, sometimes they seem to have a reduced interest in them, there are unsuccessful attempts at social contact, in addition to the difficulty of organization, planning and a certain inflexibility of behavior. | Difficulty changing activities, limited independence for self-care, organization and planning.   |
| Level 2<br>Moderate | It requires substantial support, there are apparent social losses, limitations in initiating and maintaining interactions, inflexibility of behavior and difficulty in dealing with changes.   | Difficulty changing environments, diverting focus / attention, requiring support at many times.  |
| Level 3<br>Severe   | It requires a lot of substantial support, there are serious deficits in social communication skills, inflexibility of behavior and extreme difficulty with change.   | They have extreme difficulty with change and require very substantial support to carry out day-to-day tasks, including self-care and personal hygiene. |

**Table 1:** Levels of Autism Spectrum Disorder (ASD)

Source: Diagnostic and Statistical Manual of Mental Disorders (2013); Rodrigues, Silva, Lima, costa (2023) and prepared for this study.

flexible approach is essential to meet the constantly changing needs of people with ASD (Fernandes, Tomazelli, Girianelli, 2020). According to the DSM-V (2014), it is possible for a person to progress in relation to their initial stage of development.

For example, some people may transition from a moderate to a mild level or even begin to exhibit extremely subtle traits of the condition. This phenomenon is often referred to as “spectrum surfing.” Progression depends on several factors, such as the type of treatment and stimuli that the person receives, the intensity and quality of these stimuli, the beginning of these interventions, as well as coordination between different contexts, including family, school and therapies, in offering these stimuli. (DSM-5, 2014).

Introducing effective and appropriate stimuli, especially during the early childhood years when the brain is most receptive to change, significantly increases the chances of positive development. However, this process is also influenced by the presence of comorbidities that the person may present, which can impact the development trajectory in a unique way (DSM-V, 2014).

### CONCEPT OF AUTISM SPECTRUM DISORDER (ASD)

According to Rozental (1993), the adjective term “autistic” was originally used in psychiatry to describe a person as “withdrawn” or “closed in on themselves”. Initially, it could be applied to any individual who demonstrated reclusion, whether due to reasons such as severe depression, the presence of brain tumors or even a simple tendency to have a shy and distant personality.

According to the DSM-V (2014, p. 809), autism is a neurodevelopmental disorder “characterized by deficits in two central domains: 1) deficits in social communication and social interaction and 2) repetitive and restricted patterns of behavior, interests and activities”.

For Marques (2000), autism is a developmental condition that impacts several aspects of the way a child perceives the world around them and acquires knowledge through their experiences. The author highlights that children with autism generally do not demonstrate an innate desire for social interaction, and attention and recognition from others do not have the same relevance for them.

The Ministry of health (2022, [sd]) conceptualize ASD as a “disorder characterized by changes in the individual’s neurodevelopmental functions, interfering with the ability to communicate, language, social interaction and behavior”. Even so, early diagnosis allows the development of stimuli for children’s independence and quality of life.

ASD is a disorder characterized by changes in neurodevelopmental functions, which can encompass qualitative and quantitative changes in communication, whether in verbal or non-verbal language, in social interaction and behavior, such as: repetitive actions, hyper focus on specific objects and restriction of interests. Within the spectrum, degrees are identified that can be mild and with total independence, presenting slight adaptation difficulties, up to levels of total dependence for daily activities throughout life (Ministry of Health, 2022, para. 7).

For Leal (2017), Autism Spectrum Disorder is a complex condition that requires the collaboration of a multidisciplinary team to comprehensively address this disorder. There are no conclusive studies on the ideal treatment, which must encompass nutritional aspects, behavior control, medication use, physical interventions and educational considerations.

According to Bosa (2002), children with autism demonstrate remarkable difficulty in understanding the expectations that fall upon them. In other words, they have difficulty understanding other people’s mental states, such as other people’s beliefs, thoughts or feelings, which negatively affects their ability to interact socially. This results in difficulties in establishing reciprocity and demonstrating empathy.

In summary, the behavioral aspects that can serve as indicators for the observation and diagnosis of Autism Spectrum Disorder include deficits in verbal and non-verbal

communication, lack of social reciprocity, difficulty in forming and maintaining appropriate friendships, as well as the presence of behavioral patterns restricted, repetitive and specific interests according to Zanolla et al. (2015).

## **DENTAL TREATMENT FOR CHILDREN WITH ASD**

Dias (2009) highlights that patients with ASD<sup>2</sup> may have poor oral health, mainly as a result of ineffective oral hygiene. The author argues that the lack of provision of adequate dental care is related to several causes. Among them, the difficulties of those responsible in performing oral hygiene due to the patient’s non-acceptance, the low priority given to oral care in comparison with other challenges of the daily routine and the complications associated with the difficulty and high cost of treating these patients stand out.

Dental professionals may often encounter autistic patients in their offices. Therefore, it is essential that these professionals have knowledge about these patients’ behavioral disorders and know how to best approach them during care. What makes the difference in caring for autistic patients is the conduct adopted by the professional to manage their behavior during consultations (Dias, 2009).

In the same sense, Delli, Bornstein and Livas (2013) remember that, in addition to communication difficulties, patients with ASD still demonstrate some anxiety in relation to the physical space of the office due to the strong fluorescent lights, equipment that makes high-pitched noises, the texture and even the taste and aroma of the materials used in dental procedures.

Due to the great sensitivity shown by autistic people, physical contact and some sounds become torture for these patients, who, in the presence of loud noises, immediately put their

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2. Updated term, according to DSM-V (2014).



hands to their ears to feel protected. However, other sounds become a fascination for them, such as the noise of a clock ticking, just as the light from a reflector at some point can become fascinating or distressing, presenting unexpected reactions (Dias, 2009).

The studies carried out by Amaral et al. (2012) highlight the relevance of understanding the limitations of patients with ASD and seeking effective approaches in the context of dental care. This includes the implementation of interaction strategies and the provision of objects that contribute to the patient's comfort during the consultation. Furthermore, it emphasizes the importance of professionals being attentive to patients' behaviors during the consultation, such as the lack of eye contact and difficulties in verbal communication.

Due to the sensory changes that affect people with Autism Spectrum Disorder (ASD), such as hypersensitivity to external stimuli, such as noises, odors and unpredictable reactions, dental treatment represents a significant challenge for professionals in the field. This requires not only specialized knowledge, but also exceptional skill and a specific interaction approach with the patient (Leite; Curado; Vieira, 2019).

To meet the oral needs of an autistic child requires dental surgeons to be willing to work with the team of professionals who assist them, to spend more time during consultations, to take careful care with the anamnesis, and some adaptations and environmental structures that will be related to the degree of the pathology if is it mild, moderate or severe, and if there are other comorbidities.

The personality of each of these potential patients may require the dentist to have a little more patience and tolerance. But the biggest challenge lies not only in training, but in the process of motivating a dental surgeon to awaken within themselves the desire to

welcome a person with ASD into their work routine (Sant'anna, Barbosa; Brum, 2017).

The professional can provide care to autistic patients in the dental office and at home, without the need for drugs and without causing stress. Any and all dental surgeons are able to care for an autistic patient as long as they are adequately prepared to perform the procedures and understand the limitations of each individual (Campos et al., 2009).

Amaral et al. (2012) and Leite, Curado and Vieira (2019) describe three specific approaches that can be useful to guide dentists in caring for children with ASD; the Picture Exchange Communication System (PECS): system developed in 1985 by Andy Bondy and Lori Frost with the aim of helping children with communication difficulties, improving their speech or helping to obtain it; Applied Behavior Analysis (ABA): which is summarized as an applied behavior analysis consisting of a progressive method to help the patient develop skills that have not yet been acquired, through phases that they overcome; and, the Treatment and Education of Autistic and Related Communication Handicapped Children (TEACCH): which describes a strategy aimed at organizing the patient in their daily environment, in which the dentist must, together with the parents, explain and demonstrate the steps of hygiene for the autistic patient, so that he repeats them during his routine at home, and over time, the autistic child will understand this pattern and will acquire independence in this activity.

In this study, the TEACCH method was addressed, which, according to Prado and Oliveira (2019), is one of the most widely used in Brazil. The main purpose of this method is to encourage the child's autonomy and structure their environment, establishing a routine. This is accomplished through various stimuli, such as visual (such as the use of pictures that demonstrate the step-by-

step treatment), bodily (using the “Say-Show-Do” approach) and sound (involving words, sounds and commands), such as “sit” or “open your mouth”).

## **DENTAL TREATMENT FOR CHILDREN WITH ASD BASED ON THE TEACCH PROGRAM**

Approaches to patients who are autistic people vary according to the level of cognitive impairment. During care, it is essential to consider several characteristics, such as sensitivity to sensory stimuli, clear and direct communication, and the creation of routines. Establishing a care routine from early childhood plays a fundamental role in the patient’s adaptation to this routine (Amaral et al., 2012).

Furthermore, Sousa (2018) emphasized that to perform dental procedures, even simple ones, there is a need for prior knowledge of autistic behavior and the prior medical history of each patient. Repetitive behaviors cause fear of the new, and difficulty in communication is a barrier to completing treatment.

Studies conducted by Kwee, Sampaio and Atherino (2009) and Sant’anna, Barbosa and Brum (2017) highlighted a promising approach to improving dental care for autistic individuals: the TEACCH program. It is believed that the effectiveness of this program in assisting autistic patients is due to its nature of structured care, which respects the routine and organizes patient care procedures.

Studies carried out by Mello (2007), Fonseca and Ciola (2008), and Schwrsaztman (1995) address the TEACCH program as a structuring of time, space and sequence of events in a specific environment. It is believed that this organization can provide a sense of calm to the autistic patient and facilitate greater interaction between the patient and the dentist.

Translated from English, the method means Treatment and Education for Autistic and Children with Communication-Related Deficits. The TEACCH model was developed in the 1960s in the Department of Psychiatry at the School of Medicine at the University of North Carolina, USA. The TEACCH model was a government response to the growing movement of parents complaining about the lack of care for children with autism. According to Camargos (2005), the TEACCH method was developed in 1970 by Dr. Eric Schopler and collaborators, at the University of North Carolina, and is considered one of the most used teaching methods in Brazil and is currently becoming known worldwide.

Mesibov (2007) clarifies that TEACCH is a program that involves the spheres of educational and clinical care, in a practice with a psychoeducational approach, making it, by definition, a transdisciplinary program.

According to Mello (2007), the TEACCH program is focused on organizing the physical environment through the implementation of routines, which are structured in tables, panels or agendas, in addition to the creation of work systems. This approach aims to adapt the environment in order to make it more accessible and understandable for the autistic child. Through the organization of both the environment and activities, the TEACCH program seeks to promote the autonomy of people with autism.

The method aims to facilitate the understanding of each space and its function, by carrying out activities that allow children to understand the correct order of actions. By establishing a consistent pattern, children are able to gain independence in carrying out these activities. This approach can be applied, for example, to teaching toothbrushing, in which the steps are demonstrated and children are encouraged to repeat them, often with the help of images, as suggested by Moreira et al. (2019).

The TEACCH program represents a therapeutic approach that is based on the clear and targeted definition of specific objectives related to the behaviors you want to modify. Its central purpose is to eliminate or reduce undesirable behaviors while positively strengthening desirable behaviors. The positive reinforcement of stimuli increases the probability that behaviors considered appropriate and socially acceptable will be manifested in a consistent manner (Schwartzman, 1995). Kwee, Sampaio and Atherino (2009) developed research on the TEACCH program and concluded that its theoretical bases are Behaviorist Theory and Psycholinguistics.

The valorization of behavior descriptions, the use of step-by-step programs and the use of reinforcers highlight behavioral characteristics. On the other hand, it was in psycholinguistics that strategies were sought to compensate for the communicative deficits of this syndrome, such as the use of visual resources, providing interaction between thought and language and to expand understanding capabilities, where the visual image is a generator of communication (Kwee)

Kwee, Sampaio and Atherino (2009, p.219) also mention the principles of the Program:

1. promote the adaptation of each individual in two transactive ways: the first is to improve all living skills with the support of the best educational techniques available; the second, to the extent that there is a deficit involved, understand and accept this deficiency, planning environmental structures that can compensate for it;
2. promote mutual collaboration at an active working level through which professionals learn from parents and use their particular experiences relating to their own child and, in return, professionals offer parents their knowledge in the area and their experience. Together they define program

priorities, at the Institution, at home and in the community. This union is politically the most powerful, both for treatment and research;

3. favor an assessment that allows the understanding of the child's current skills, emerging skills and what helps to develop them. Specific teaching and treatment programs are individualized and based on a personalized understanding of each individual. Careful assessment of each involves both a formal (the best and most appropriate tests available when possible) and an informal (better and more insightful observations from parents, professionals, teachers, and others in regular contact with the child) assessment process;
4. know the theoretical systems, cognitivist and behaviorist theories that guide both the research and the procedures developed by the TEACCH program;
5. act within a generalist and transdisciplinary model, in which professionals from any discipline interested in working with this population are trained as Generalists. This means that they are expected to have a functional ability to deal with the full range of problems brought on by autism, regardless of their areas of specialization. This allows these professionals to take responsibility for the individual as a whole, as well as consult specialists when necessary, however it is the team that makes the decision.

Kwee, Sampaio and Atherino (2009) highlight that the TEACCH program can be applied comprehensively, in different contexts, such as the home, school and therapeutic environment. It adapts to the individual characteristics of each person in their daily routine, considering the specific demands of each space. The authors clarify that autistic children tend to respond more to visual stimuli than to auditory ones. When a child acquires

full competence in carrying out an activity, that activity is systematically incorporated into their routine. However, the program is not limited to just cognitive development, but also includes teaching the basics of Activities of Daily Living (ADL) and Activities of Practical Life (AVP), promoting the maximum possible independence. In general, the implementation of this program tends to provide children with peace of mind, as it encourages better understanding and communication in their everyday environment (Kwee; Sampaio; Atherino, 2009).

Another important factor to be highlighted is that “individualization is a key concept in educational programs based on the TEACCH program” (Kwee, Sampaio and Atherino, 2009, p. 224). Autistic people have some characteristics in common, however they are extremely different from each other, in terms of skills, areas of difficulty and idiosyncrasies. Thus, appropriate dental management for a child with Autism Spectrum Disorder (ASD) requires careful individualization.

TEACCH is an appropriate approach to caring for children with Autism Spectrum Disorder, due to its ability to adapt to each child’s individual needs. This involves careful consideration of your behavioral profile, sensory sensitivities, and unique communication skills.

The environment of a dental office is a space that stimulates anxiety for most people, due to the presence of intense fluorescent lights, noisy equipment, such as high-speed pens, and materials with unfamiliar textures, tastes and aromas. These characteristics can cause significant discomfort for patients with Autism Spectrum Disorder (ASD), as they tend to be sensitive or hypersensitive to external stimuli of this type, as highlighted by Czornobay (2017).

Another aspect to consider, according to Sant’anna, Barbosa and Brum (2017), is that

it is common for an autistic child’s first visit to the dentist to occur late, which can make care more challenging, as gaining trust of the autistic patient generally requires time, often not being successful in the first consultation. Sant’anna, Barbosa and Brum (2017) highlight that an autistic child’s first visit to the dentist occurs late. This can make care more challenging, as gaining the autistic patient’s trust usually takes time, often without success in the first consultation.

At this initial stage, it is extremely important that the dentist establishes effective communication with the child and their guardian, seeking to collect as much relevant information as possible. Furthermore, it is essential to conduct a thorough anamnesis in order to obtain a complete understanding of the patient’s situation, thus allowing adequate planning of dental care. This approach prepares the patient in advance for their dental appointment, increasing the chances of successful care.

Paviani (2003) explains that autistic children have difficulty maintaining eye contact, so the dentist needs to try several ways to achieve this communication. Ideally, the professional must stand in the direction of the patient, at the same height, facilitating eye-to-eye contact, which will provide safety to the patient.

In addition, the professional can also wear colorful coats, a hat with drawings and larger glasses with flashy colors, stimulating the autistic person’s visual perception.

To Sant’anna, Barbosa and Brum (2017), the TEACCH program is an approach aimed at creating organized systems, as it is believed that children develop more effectively in structured environments. Over time, the autistic child begins to understand this pattern and develop independence in that specific activity. It is important to highlight that the TEACCH program is highly

individualized and can be applied to people of different age groups who face autism or other developmental disorders.

The TEACCH method is widely used in Brazil, with the central purpose of promoting the child's independence and establishing a well-structured routine. This is accomplished by incorporating a variety of visual, bodily, and auditory stimuli to create an organized environment. This is due to the belief that children develop more effectively in structured environments (Prado; Oliveira, 2019).

In the context of oral hygiene, it is essential that parents and/or the dentist demonstrate the brushing steps to the child, allowing them to reproduce them according to the initial presentation. This approach is based on the child's own routine to develop their oral hygiene skills. Furthermore, images that illustrate the brushing sequence and the example of adults who live with the child also play an important role in this learning process. In the dental context, the dentist can work together with parents to implement TEACCH strategies when teaching and demonstrating hygiene steps to the autistic patient (Leite; Curado; Vieira, 2019).

Patients with Autism Spectrum Disorder demand an appropriate and highly personalized dental approach, depending on the analysis of their behavioral profile, as highlighted by Oliveira (2019). This approach model is based on the creation of a routine adapted to the child's individual needs, in order to facilitate the development of their activities. Sant'anna, Barbosa and Brum (2017) also argue that practical guidance from adults, the use of sequential images that illustrate the steps of brushing can be valuable in indicating what must be done.

In certain scenarios, depending on the level of autism presented by some children, it may be essential to consider pharmacological approaches, such as conscious sedation or,

in more extreme cases, the application of general anesthesia in a hospital environment. These measures aim to reduce the fear and anxiety experienced by children with autism, with the purpose of ensuring their safety and facilitating effective dental care (Moncada et al., 2019).

## FINAL CONSIDERATIONS

Through this research, we sought to present a proposal to face the challenges that dental surgeons often encounter when treating patients diagnosed with Autism Spectrum Disorder (ASD), especially children. Based on the conclusions of this study, it becomes clear that it is essential that the dentist is properly qualified to offer more appropriate dental care to children with ASD. This implies the application of various techniques for managing child behavior, which must be personalized and adapted according to the degree of autism and the type of behavior presented by the patient during the dental consultation.

Refusal to dental care by patients with Autism Spectrum Disorder (ASD) often occurs due to their sensory sensitivity, as these individuals tend to react intensely to the dental environment. This scenario emphasizes the importance of dental professionals having prior knowledge of their patients' development and being able to adapt the approach and work process related to dental procedures, aiming to achieve effective results.

This study considers that the TEACCH program is particularly appropriate to meet these demands, since its central mission is to create organizational systems that contribute to the effectiveness of dental care for children with ASD.

In conclusion, caring for autistic children, due to its complexity, requires in-depth knowledge, dedication and patience from the dental professional. Furthermore, it is

essential to establish effective communication with the patient's family and have the support of a multidisciplinary team. This collaborative approach aims to create an environment of trust and complicity with the patient, contributing to the success of dental treatment.

It is important to highlight that continuing education for both dental professionals and parents plays a fundamental role in overcoming difficulties that may arise during the dental consultation of a child with ASD. This in-depth understanding and

employment of appropriate techniques, such as the TEACCH program, can make a huge difference in the child's experience and the effectiveness of dental treatment.

The professional must have not only technical skills, but also relational ones; one must have planning skills, in preparing the environment in which the patient will be welcomed and the personal support they may need, such as the help of psychological counseling and qualified support from the family.

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