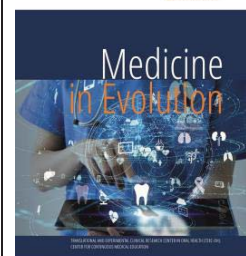


# Importance of Communication for the Dental Treatment of ASD Patients



Pop D. M.<sup>1,3</sup>, Negruțiu M. L.<sup>1,3</sup>, Tănase A. D.<sup>2,3</sup>, Crăciunescu E. L.<sup>1,3</sup>,  
Novac A. C.<sup>1,3</sup>, Bojoga D. E.<sup>4,5</sup>, Miok K.<sup>6</sup>, Popa M.<sup>7,8</sup>

<sup>1</sup>Department of Prosthesis Technology and Dental Materials, Faculty of Dental Medicine, "Victor Babeș" University of Medicine and Pharmacy, Timișoara, Romania

<sup>2</sup>Department of Professional Legislation in Dental Medicine, Faculty of Dental Medicine, "Victor Babeș" University of Medicine and Pharmacy, Timișoara, Romania

<sup>3</sup>Research Centre in Dental Medicine Using Conventional and Alternative Technologies, Faculty of Dental Medicine, "Victor Babeș" University of Medicine and Pharmacy, Timișoara, Romania

<sup>4</sup>Department of Oral Rehabilitation and Emergencies in Dentistry, Faculty of Dental Medicine, "Victor Babeș" University of Medicine and Pharmacy, Timișoara, Romania

<sup>5</sup>Interdisciplinary Research Center for Dental Medical Research, Lasers and Innovative Technologies, Faculty of Dental Medicine, "Victor Babeș" University of Medicine and Pharmacy, Timișoara, Romania

<sup>6</sup>Institution of Advanced environmental Research-ICAM, Vest University, Timișoara, Romania

<sup>7</sup>Department of Pediatric Dentistry, Faculty of Dental Medicine, "Victor Babeș" University of Medicine and Pharmacy, Timișoara, Romania

<sup>8</sup>Pediatric Dentistry Research Center, Faculty of Dental Medicine, "Victor Babeș" University of Medicine and Pharmacy, Timișoara, Romania

Correspondence to:

Name: Alina Doina Tănase

Address: p-ta Eftimie Murgu nr.2, Timișoara, Romania

Phone: +40 733144278

E-mail address: tanase.alina@umft.ro

Received: 10 January 2024; Accepted: 28 February 2024; Published: 31 March 2024

## Abstract

To ensure the most pleasant and efficient experience for patients diagnosed with autism spectrum disorder in the dental office, collaboration and attention for their needs are essential. Adapting communication strategies to the individual needs of autistic patients can make a significant difference in creating a comfortable environment and build a relationship of trust between them and the medical staff.

In order to carry out this study, a questionnaire was drawn up consisting of ten closed choice or selection questions, which had the role to identify the opinion of dentists regarding the most beneficial methods and means of communication with patients diagnosed with autism.

After completing, the questionnaires, the results were centralized and statistically interpreted. The main conclusion of this study is focusing on the idea of a closer collaboration between dentists and relatives of patients with autistic syndrome is mandatory in identifying their specific needs from the beginning, so that communication is adapted to their condition.

**Keywords:** autism spectrum disorder, anxiety, dentist, patient, ASD

## INTRODUCTION

Autism is a lifelong condition. This disability is a neurological disorder that is diagnosed in the first three years of life and is manifested by limited communication and difficulties in adapting to a social life. The treatment's result and integration of these persons in a normal and social life is influenced by the severity of the syndrome, early diagnostic and treatment [1].

In medical practice, patients diagnosed with autism spectrum disorder (ASD) have difficulties in understanding verbal and non-verbal communication [2]. The patients suffering from ASD have the inability to manifest expressive communication and find it very difficult to initiate it [3].

It is important for dentists to evaluate the language comprehension of minor patients diagnosed with ASD in order to adapt communication to their level of understanding [4]. The use of language beyond the understanding of ASD patients can be confusing and frustrating, sometimes leading to aggression on their part.

Moreover, in order to communicate in two-way, the dentist has to guide himself in learning strategies for initiating, resuming and sustaining the conversation with these patients, as well as showing respect for the people in the around [5].

The light and noises produced in dental offices by the devices can exceed the tolerance of a patient diagnosed with ASD, increase their state of anxiety and trigger their control and behaviour [6].

Therefore, dentists who provide special assistance to ASD children and ASD adults will have to provide oral health care based on a prior consultation with their relatives and find the specific ways of interacting [7].

The well-being at the end of a consultation and dental treatment depends on a professional dental treatment and the trust the doctor gains and the professional relation with the ASD patient.

### *Aim and objectives*

The aim and objectives of this study are focusing on identifying the most effective methods and means by which communication between the dentist and ASD patients can be improved through a better knowledge, awareness and understanding of their specific condition.

## MATERIAL AND METHODS

The material and method of this study consisted in a questionnaire. Fifty-five dentists answered to ten closed questions focused on analysing their opinion regarding the ways that could facilitate the communication of ASD patients.

Before receiving the questionnaire, the dentists included in this study signed the informed consent and the aim of this study was explained to them. Dentists were invited to ask any question they considered necessary regarding this study. The questionnaires were distributed into different dental practices in Timiș County and the dentists had one week to complete them. The questionnaire also included questions related to information regarding demographic data, sex (M/F), age and the environment origin (Urban/Rural). Each of the ten questions contained three answer options. The first question addressed to dentists had the aim to analyse to what extent they encountered difficulties in communicating with patients diagnosed with ASD, so that the most optimal means to use in this way could be identified and reduce the possible barriers in communication.

The second question aimed to observe the behaviour displayed by ASD patients during the visit in the dental office. Unfortunately, these patients suffer from bipolar disorder, characterized by episodes of extreme and severe mood swings. Aggressive behaviour can be triggered by various factors such as noise, light, physical discomfort or pain caused by dental treatments. Aggression of these patients is not excluded and can be triggered by anxiety and unfamiliar environment. If it is identified the cause of the aggressive behaviour, the interaction with these patients can be improved and controlled.

The third question assessed if rewarding ASD patients at the end of each consultation or treatment can positively influence their cooperation with the dentist. This method increases patients' confidence and treatment compliance, especially when the patients are children. Positive feedback can strengthen patients' trust in the medical team and contribute to a positive reaction in the dental office. Such rewards can create a positive association with the dental office visit and motivate patients for subsequent visits.

The fourth question is analysing to what extent dentists chose to present the dental instruments and equipment from their office before starting the treatment. In this way the doctor is trying to familiarize them with the environment and reduce the patient's anxiety.

The fifth question aims to evaluate the interdisciplinary collaboration between dentists and psychologists in providing medical services to patients diagnosed with ASD. It was evaluated the opinion of dentists regarding the benefits of this collaboration, if they use the services of a psychologist when providing medical services to patients special needs. In the case of ASD patients, it is necessary for dentists to consult the opinion of a psychologist to understand patient's ways of interaction and communication and to be able to identify those means through which communication can be successful.

Question sixth is dedicated to an extremely current topic in medical practice, namely the evaluation of the effectiveness, organization's performances and the training programs regarding the specific approach to ASD patients. We wanted to analyse to what extent dentists are willing to participate in these training programs organised by specialists in the field. The dental treatments and generally medical treatments for ASD patients require specialized knowledge regarding the most effective ways for collaboration, communication and interaction. ASD patients have a series of particular behavioural characteristics that dentists must be aware about before treating them.

The seventh question analysed if there is a causal link between the timing of scheduling patients with autism at the dental office and the efficiency of their communication with the entire medical team. Question number seven was focused on the importance of the appointment's time for the medical team. Patience is one of the most important characteristics that dentists must demonstrate when interacting with ASD patients. For this important reason, it is necessary that ASD patient's appointment need be made in the early part of the day, when the degree of concentration is high. If the dentists are scheduling ASD patients in the second part of the day, there would be a risk that the interaction between them would suffer, due to the fact that medical team is already stressed, tired and under physical tension after a working day. Question seven aimed to evaluate the opinion of doctors regarding the usefulness and benefits of scheduling patients at the office in the first part of the day.

The eighth question analysed to what extent dentists choose to collaborate with the relatives of ASD patients for informing themselves about their specific needs before starting the medical care. It is important for the medical team to adapt their communication and interaction to the particularities or behavioural characteristics of each individual, especially to ASD children.

For the ninth question, it was set out to analyse to what extent dentists show empathy towards ASD patients during their visit to the dental office. The success of the dental procedure does not depend exclusively on the professional training of the medical service

providers, is influenced into a great extent to how involved and how much empathy the medical team can show to ASD patients.

The tenth question aimed to spot the dentist’s opinion and experience regarding the usefulness of communicating information to ASD patients using visual communication. This include images, cartoons, drawing because it is an easier way to capture their attention, easier for them to receive the message than exclusively verbal communication.

## RESULTS

The collected data were analysed according to the background of the dentists. The results showed for question one that out of fifty-five subjects, three from the rural and nineteen from the urban area believe that the patient diagnosed with ASD most often initiates communication with the medical staff with difficulty during the specialized care. Seven dentists from the rural and nineteen from the urban area have the opinion that patients diagnosed with ASD initiate communication with difficulty only in those situations in which the medical staff manifests a behaviour that causes anxiety, inspiring fear to them during the interaction. Only one dentist from the rural and six doctors from the urban area believe that autistic patients do not have difficulties in initiating communication in the relationship with the medical staff when showing them an open attitude in interaction during the visit to the dental office (Figure 1).

Question 2: During the consultation, does the autistic patient show aggressive behaviour in communication with the medical team? Two dentists from the rural area and one from the urban area had the opinion that patients suffering from ASD show aggressive behaviour in communicating with the medical staff during the consultation. Four dentists from the rural area and thirty-one from the urban area had the opinion that only in certain particular situations they have encountered an aggressive behaviour in the communication with the medical team, five dentists from the rural area and twelve from the urban area encountered cases in which autistic patients had a violent behaviour (Figure 1).

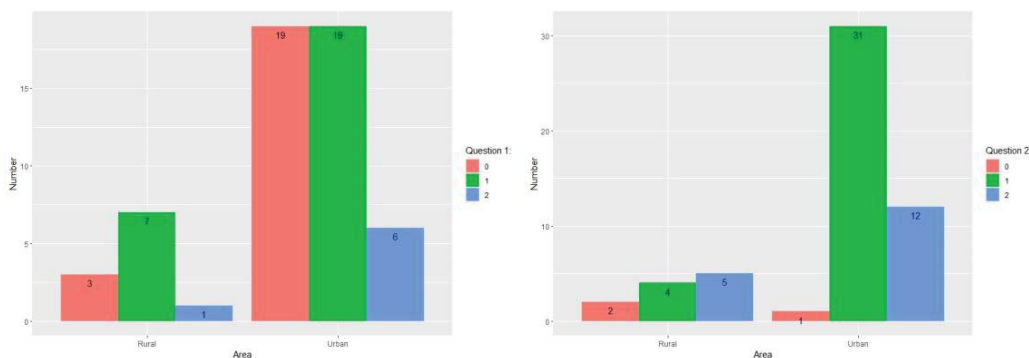


Figure 1. Statistical analysis for question one and two

Question 3: Do you think that rewarding the autistic patient at the end of each consultation in which he was cooperative with the dentist is an effective way to increase his confidence in the medical act? The statistical analysis showed that four from the rural area and twenty-five from the urban area believe that rewarding the ASD patient at the end of each consultation is an effective way to increase their confidence. Seven dentists from the rural and seventeen from the urban area had the opinion that not all ASD rewarded patients, increase their trust in the medical treatment and medical team. Only two dentists working in the urban area did not answer affirmatively to this question in the questionnaire (Figure 2).

For question 4, if dentists consider that the presentation and description of the medical equipment before each treatment contributes to the familiarization of the ASD patients with the medical procedures, thus reducing their state of anxiety. The results showed that two dentists practicing in the rural are and thirteen in the urban area believe that the presentation and description of the medical equipment reduce anxiety for ASD patients. Nine dentists from rural areas and thirty-one from urban areas claimed that this method does not contribute to a better communication and have no positive effect over their state of anxiety of ASD patients (Figure 2).

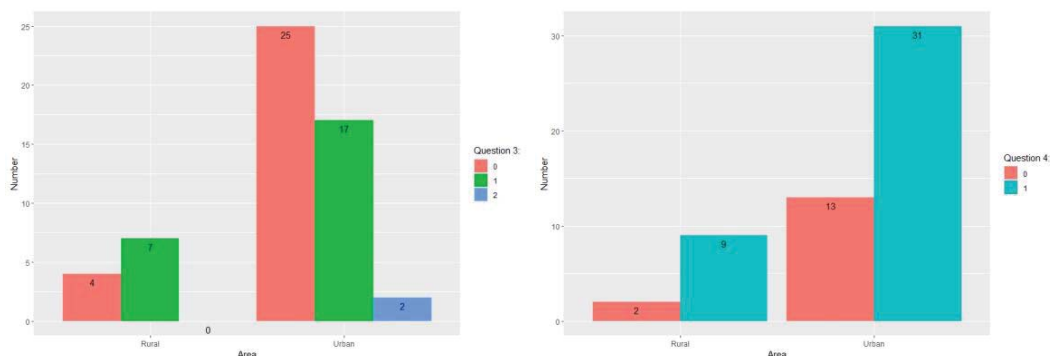


Figure 2. Statistical analysis for questions three and four

Question 5: Do you consider that interdisciplinary collaboration between the dentist and a psychologist is appropriate in the case of patients diagnosed with autism spectrum disorder? The results for question five show that three dentists working in the rural area and twenty-one in the urban area believe that it is beneficial, when dealing with ASD patients, to collaborate with a psychologist. Dentists need help to understand and correctly interpret the behaviour of these patients. Eight dentists from the rural area and twenty-one from the urban area had the opinion that an interdisciplinary collaboration is not always needed, only in those situations in which they encounter severe difficulties in interaction with ASD patients. Only two urban dentists do not consider this collaboration appropriate (Figure 3).

Question 6 assesses if dentist's attendance in training programs improve their approach to ASD patients. Seven dentist from rural areas and thirty-one in urban areas believe that it is extremely beneficial to participate in the training program because of the particularities regarding the way they communicate and behave. Four dentists from the rural area and twelve from the urban area have the opinion that in all situations the efficiency of communication cannot be improved and only one doctor from the urban area consider that participation in this kind of training programs ineffective (Figure 3).

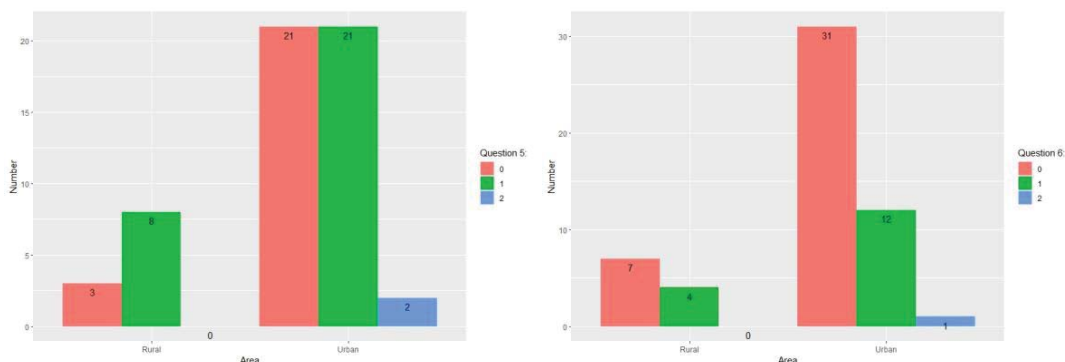


Figure 3. Statistical analysis for questions five and six

Question 7 evaluates the importance of the appointment's time. Four dentists from rural areas and twenty-two from urban areas believe that ASD patients should be scheduled in the first part of the day. They are aware that in the second part of the day their concentration and patience decreases and the risk of non-cooperation is higher. Five dentists from the rural and eighteen from the urban area stated that not in all situations the adoption of this measure will ensure the success of the treatment, and two doctors practicing in the rural and four in the urban area did not answer this question affirmatively.

Question 8 assess if it is important for the doctor to communicate with the family of the ASD patient and to identify their special needs. The results showed that eight dentists from the rural and thirty-seven from the urban area consider that is important to communicate with the family in order to identify their specific needs and to prepare the patient regarding the dental office experience. There was also a limited number of dentists, three from rural areas and seven from urban areas, who did not answer this question affirmatively.

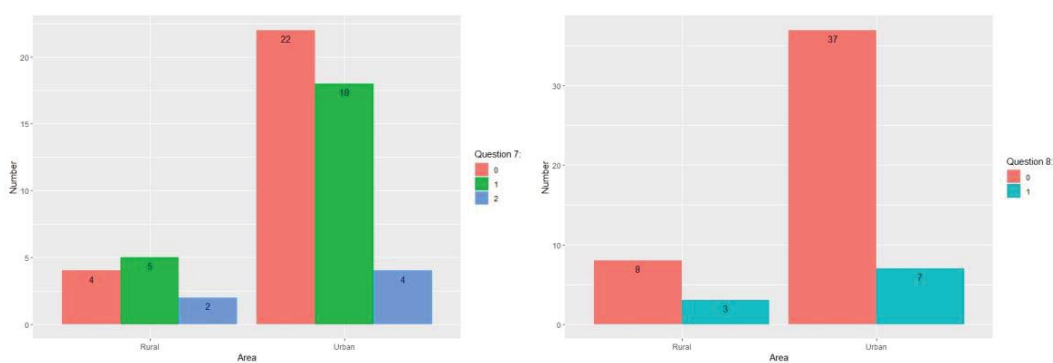


Figure 4. Statistical analysis for questions seven and eight

Question 9 assesses if empathy could be one of the main requirements in communication with ASD patients? Six from the rural and thirty-one from the urban area consider extremely important to show empathy in the communication with ASD patients, considering that their anxiety can be reduced with this attitude during the specialized care. Five dentists from rural areas and thirteen from urban areas do not believe that empathy contributes to facilitating interaction with this category of patients (Figure 5). Question 10 assesses if visual communication makes ASD patients more cooperating and four dentists practicing in rural areas and twenty-two in urban areas believe that this method is more useful and with better results. Seven dentists from the rural and twenty-one from the urban area claimed that this method of communication is not effective in all situations, and only one doctor from the urban area denied the usefulness of this method of interaction with patients diagnosed with a spectrum disorder autistic (Figure 5).

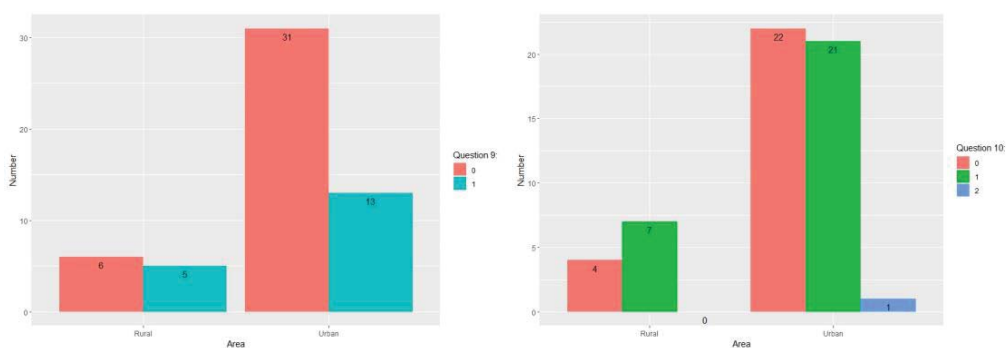


Figure 5. Statistical analysis for questions nine and ten



## DISCUSSIONS

The development of an adequate communication between the dentist and the patient diagnosed with ASD is closely related to the behaviour and respect that the dentist show to these patients.

Adequate communication and prior preparation of the ASD patient for the visit to the dental office can help him adapt to an unfamiliar environment into which he enters.

Communication with autistic patients can be difficult, but if it is adapted to their needs, it can contribute to creating a pleasant environment in the dental office both for them and for the entire medical staff.

## CONCLUSIONS

Following the statistical analysis, it was found that most dentists are open to adapting their communication to the specific needs of patients diagnosed with ASD.

It was found that a large part of the dentists responded affirmatively to the need for their training by the specialists in the field regarding the approach of ASD patients from the perspective of the most effective communication, which shows their involvement in creating an environment in the dental office when they are requested to provide specialized care to this category of patients.

The severity of the ASD condition can influence and even limit or make e the dental treatment impossible in normal conditions. If it is not possible to communicate and perform a professional dental treatment, the only option for treating these patients is sedation.

## REFERENCES

1. Iorgulescu C, Iamandescu IB: Medicina dentară comportamentală, Editura Medicală, București, 2013: 101
2. Balas-Baconschi C: Autismul infantil. Structuri psihopatologice și terapie complexă, Editura Presa Universitară Clujeană, 2021: 35-36
3. Josan L, Aspecte ale comportamentului pacienților în cabinetul dentar, Editura Aeternitas, Alba Iulia, 2014: 95-96
4. Hollander E: Manual de tulburări din spectrul autismului, Editura Amer Psychiatric Assn Pub, 2022: 25Bogdashina O: Comunicarea în autism și sindromul Asperger, Editura Dianașă, Târgu-Neamț, 2012: 98-99
5. Iorgulescu G: Elemente de științe comportamentale și neuroștiințe în medicina dentară, Editura Medicală, București, 2017: 100
6. Chantal SK: Tulburarea de spectru autist, Ghidul complet pentru înțelegerea autismului, Editura Herald, 2017: 20-21