# PERCEPTION OF UFRGS DENTISTRY STUDENTS OF THE AREA OF DENTAL CARE FOR PATIENTS WITH SPECIAL NEEDS

MÁRCIA CANCADO FIGUEIREDO ORCID 0000-0002-4279-5417

ANDRESSA NICOLI HAAS ORCID 0000-0002-1820-3952

ALINE MACIEL DA SILVA ORCID 0000-0002-6196-3279

TAIANE CORRÊA FURTADO ORCID 0000-0003-4685-9526

XIMENA CONCHA MELGAR ORCID 0000-0002-9139-218X

### **ABSTRACT**

The aim of this research was to evaluate the perception of the students of the School of Dentistry of the Federal University of Rio Grande do Sul (FO-UFRGS) who took the elective subject of Dental Care for Patients with Special Needs (PSN) in relation to said course. A longitudinal, observational and analytical study was carried out, in which a questionnaire with 20 open and closed questions was applied to 64 students of 9th and 10th semester who had taken this subject. A total of 98.4% (n = 63) of the students felt moved and learnt a life lesson with the patients; 86% (n = 55) identified with dental care for PSN; 67.2% (n = 43) showed no interest in specializing in the area; however, 76.6% (n = 49) said they were prepared to work with PSN; 98.4% (n = 63) would recommend this area to their peers; 100% (n = 64) considered that what they learned was important for their academic training as dental surgeons and that this discipline should be obligatory in the course curriculum. The students surveyed believe this area is important for their training and should be considered obligatory; it has allowed them to see a new reality and demystify their fears and preconceptions. In addition, it has made them more qualified professionals with greater empathy to serve this population.

**Keywords:** dentistry education, dental care for people with special needs, attitude.

#### INTRODUCTION

According to Decree No. 3298, a person with a disability is one who permanently exhibits loss or reduction in an anatomical structure or function which limits certain activities, within what is considered normal <sup>(1)</sup>.

The 2010 Demographic Census showed that 45,606,048 million people reported having at least one of the deficiencies studied (visual, auditory, motor, mental or intellectual), which corresponds to 23.9% of the Brazilian population <sup>(2)</sup>.

People with disabilities are at increased risk for oral diseases, due to systemic use of medications, difficulty in controlling bacterial plaque, and poor eating habits. Therefore, such patients should receive early and increased care to avoid future problems <sup>(3-4)</sup>. However, they have greater difficulty in receiving dental treatment than other members of the population given the lack of professional preparation for this specialty <sup>(5)</sup>. This behavior is being modified by professionals who seek to integrate PSN into society and provide differentiated care according to the needs of each patient, including them in health care systems <sup>(6)</sup>.

According to Silva et al. <sup>(7)</sup>, the presence of PSN in the surgery requires ergonomic adaptations for their limitations, in addition to a qualified dental surgeon.

There is a serious shortage of professionals willing to care for PSN, probably due to a lack of sufficient theoretical bases and motivating clinical experiences that provide them with knowledge and self-confidence <sup>(8)</sup>. It is essential for students, as future professionals, to be trained so they can avoid preconceptions and face personal difficulties <sup>(9)</sup>. Unless there is a drastic change in dental education, millions of citizens will be denied the necessary access to oral care and health services. This change would have a significant impact on the quality of life of these patients <sup>(10)</sup>.

Since the enactment of Law 9.394/96, higher education institutions have been free to design their curriculum, having the possibility of including or not certain disciplines. One of them is care for PSN <sup>(11)</sup>.

The National Curricular Guidelines for dental courses in Brazil, approved in 2002, state that the training of dental surgeons should enable them to act at all levels of health care and, and to that end, they should go through general training <sup>(12)</sup>. This shows that dental professionals need knowledge to meet all their patients' needs, regardless of

their characteristics. The need arises, then, to include the discipline of Care for PSN in undergraduate studies.

Figueiredo (2002) <sup>(13)</sup> states that dental education institutions must be aware of their social nature vis-à-vis PSN. The experience of working and coming into contact with these patients is essential in the training of future dentists and contributes with excellence to the inner growth and experience of life as human beings <sup>(14)</sup>. Care for PSN, at undergraduate level, provides more than just techniques for preventive and healing treatments; it also provides experiences with other sciences and with interpersonal relationships, which will help train students as individuals <sup>(15)</sup>.

The aim of this research was to evaluate the perception of the students of the School of Dentistry of the Federal University of Rio Grande do Sul (FO-UFRGS), who took the elective subject of Dental Care for Patients with Special Needs (PSN) in relation to said course.

### **METHODOLOGY**

This was a longitudinal, observational, and analytical study. The evaluated population were students of 9th and 10th semester of the School of Dentistry of the Federal University of Rio Grande do Sul who took the elective subject of Dental Care for PSN in the following semesters: 2016/1 to 2017/2. A student from this population was trained and calibrated to administer Amaral et al.'s (22) non-inductive questionnaire, with open and closed questions, to all the students enrolled, except her, totaling a sample of 64 students. All participants signed a free and informed consent before starting.

The questionnaire had 20 questions related to the feelings and degree of difficulty they faced in terms of procedures and types of patients; as well as the experiences, bonds and relationships they forged with the PSN and their caregivers. They also asked about the biggest challenge and their perception of the discipline of dental care for patients with special needs.

After collection, the data were tabulated in a data bank in Excel 2013. The answers obtained and the correlation between the variables of the different questions were analyzed quantitatively, presented in absolute and percentage relative frequency.

The answers to the open questions were organized, grouped according to their similarity while maintaining the essence and richness of the originals, and transcribed in the aforementioned article.

The internal consistency of the instrument was assessed with *Cronbach's alpha*, which measures correlations between items in a questionnaire by analyzing the responses. The values range between 0 and 1, with results of 0.7 and over showing good reliability. High reliability (greater than or equal to 0.95) is generally not recommended as it indicates that items may be redundant. The value obtained in this study was 0.8.

The project of this study was initially approved by the Research Committee of the School of Dentistry and then by the Research Ethics Committee of the Federal University of Rio Grande do Sul, under No. 1,939,527.

## **RESULTS**

Regarding questions related to students' feelings about dental care for PSN, most of them did not report negative reactions (Table 1).

Table 1 - How students felt about dental care for PSN

	NO		YES	
	n	%	n	%
Are you uncomfortable with the behavior of patients with special needs?	57	89	7	11
Are you annoyed by the behavior of patients with special needs?	60	93.75	4	6.25
Do you feel tense when a patient with special needs is nearby?	53	82.8	11	17.2
Do you feel like stopping treatment during the procedures?	58	90.6	6	9.4
Do you feel you could get more involved with the patient during care?	24	37.5	40	62.5

Regarding the degree of difficulty faced when seeing PSN, students responded on a scale from 1 to 5 (from least to most difficulty) and stated that their biggest problem was dealing with non-cooperative patients (Chart 1).

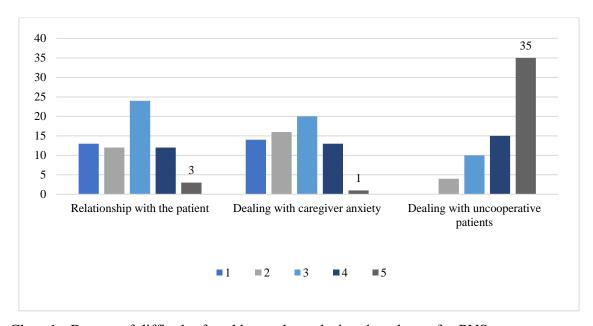


Chart 1 - Degree of difficulty faced by students during dental care for PNS Source: Authors

The students' responses on the experiences, bond and relationship they forged with PSN and their caregivers in the dental appointments showed they had felt moved, learnt a life lesson and talked to the patients' caregivers (Table 2). (Table 2).

 $Table\ 2-Relationships\ and\ bonds\ forged\ between\ students\ and\ caregivers\ and$  patients with special needs

N	NO		YES	
n	%	n	%	

Are you touched by the life stories of these patients?	1	1.6	63	98.4
Did you learn life lessons through the sessions?	1	1.6	63	98.4
During the appointments, did you manage to engage in good dialogue with the caregiver?	1	1.6	63	98.4
Did you feel identified with care for PSN?	9	14	55	86

Faced with the question "Which deficiency did you find the most difficult when providing care?", the students answered: 45.3% (n=29) autism; 25% (n=16) cerebral palsy; 3.1% (n=2) schizophrenia; 6.3% (n=4) mental retardation; 3.1% (n=2) West syndrome; 14% (n=9) others; 3.1% (n=2) none.

Regarding the greatest challenge they faced during dental care for PSN: 17.2% (n=11) of students responded physical restraint of patients; 17.2% (n=11) mentioned care for uncooperative patients; 14.1% (n=9) indicated management through non-pharmacological behavior control addressing psychological aspects; 9.4% (n=6) difficulty understanding patients; 6.25% (n=4) performing any procedure; 6.25% (n=4) did not face difficulties; 4.7% (n=3) lack of preparation to deal with situations that arise during dental appointments; another 4.7% (n=3) creating a bond with patients and 3.1% (n=2) facing family life stories.

The responses obtained on the importance of the elective PSN discipline at FO-UFRGS showed that students considered it fundamental for their academic training as future professionals (Table 3).

Table 3 - Importance of the discipline of Dental Care for Patients with special needs at FO-UFRGS

	NO		YES	
	n	%	n	%
Do you feel prepared to provide care for PSN?	15	23.4	49	76.6

Are you interested in specializing in the area of care for PSN?	43	67.2	21	32.8
Would you recommend the area of PSN to your peers who did not take the subject?	1	1.6	63	98.4
Do you consider that what you learned in this subject is important for your vocational training?	0	0	64	100

Students were also asked whether Dental Care for Patients with Special Needs should be a compulsory subject in the curriculum. All the students said it should be. There follow some of the reasons given, in their own words:

"Providing care to all patients must be part of the course of studies." "An experience all students need." "All students should go through that experience to become a well-rounded professional, especially if there is a lack of professionals in the area." "This is essential knowledge in the training of a general clinician, and it is also very rewarding." "All students should have contact with PSN before graduating, so that in the future they do not refuse care out of fear or suspicion." "This discipline makes us more humane and enables us to take care of PSN at the end of our studies." "Despite the difficulties, the discipline shows us a reality that we often do not perceive. These patients need a lot of help, and it is important to society that our school should offer this service." "It has trained us as more humane and prepared professionals; it should be more valued by students, teachers and the institution." "I learned to value this specialty that I did not know."

In the last question, the students described their perceptions, fears and mistrust before starting the Care for PSN subject: "I arrived on the first day of school afraid of what I would find..." "It is very important to have that first contact with PSN and let go of the fear and preconceptions... It helped me not to feel mistrust when providing care for PSN..." However, this fear was demystified throughout the course: "When I enrolled, I must admit that I was very afraid of what would come, of not being able to care for and deal with PSN adequately. But, after starting the activities, I began to feel an immense pleasure to be able to help improve people's lives..." "Many students feel

afraid when working with PSN given their lack of preparation, but from the moment they learn to work with them, personal and academic enrichment becomes apparent." "I had a lot of difficulty and I got tense during some sessions, but over time I gained practice and I think I have improved how I deal with both caregivers and patients."

In addition, they reported on the learning and life lessons received during the course: "I learned a lot from people who live in a different reality from ours." "...the experiences lived were unique." "...I acquired a more humanized view of patients. We ended up sympathizing with the history of the family and the patient and realizing that sometimes we complain with no reason to do so. I also learnt a lot about working with patients. I believe that all students should take this subject, because it leads to professional growth." "It is the most humane care that exists at the school..." "The subject promotes a great experience in dealing with patients and helps us empathize more with others..." "The PSN subject provides life lessons that make us rethink everything..." "...it was a really special experience. Contact with these patients, besides being unique, provides us with learnings in terms of dealing with and understanding the particularities of each patient." "Moving and enriching discipline..." "The discipline surprised me in each appointment..." "It's a moving discipline."

In many of the responses, students mentioned caregivers, which showed their importance in their experiences: "...I learned a lot with patients and caregivers..." "... I saw the great effort families make to care for these patients, I did not tire of praising them..." "The relationship I established with caregivers was excellent and it always touched me to see how they devote themselves to their PSN." "... caregivers are a major part of the care, as they must be able to explain everything carefully and without judgments..."

The importance of pursuing this discipline for a dental surgeon's professional life was also mentioned: "It is an essential discipline for our academic training, as it teaches us to deal with patients in all types of situations, to learn about the oral consequences of certain syndromes and possible drug interactions, as well as to train ourselves as more humane professionals." "... learning to manage special patients trains us as professionals that are better prepared to face the challenges of more complex care, from the technique to the emotional preparation of all the people involved." "Discipline is fundamental for academic training... our fears, preconceptions and negative images

disappear and it is no longer frightening to care for PSN." "...I realized why it is necessary to go through this experience and to be able to care for all individuals equally. More professionals must be prepared to care for these patients and that is only possible during undergraduate studies." "This discipline is extremely important because it gives us a vision that we do not have throughout the degree..." "... I feel dentistry is much closer to the concept of health than just aesthetics..." "The discipline was very valuable within my training."

They also cited the impact of dental care on the lives of people with disabilities: "Special patients, as any others, have rights, and one of them is the right to health. Oral health care is part of general health care, and we must provide it..." "... it is important in terms of patient inclusion, comfort and interest in their situation. We must practice dentistry in a more humane way."

Finally, the following is the full testimony of a student, which shows how some students empathized with the discipline, patients and caregivers; as well as the recognition of the importance of care for PSN and the satisfaction feeling it entails: "Care for PNS is a wonderful discipline. Having been able to work with these patients, to enter their world, to be able to help caregivers (who suffer so much) and to give technical quality care with a lot of love is really rewarding. It was an experience where I received much more than I could give. I received more love, hope, willpower and gratitude. I am grateful to those very special patients, who reaffirmed my decision of having chosen the right profession. And I am grateful to the teachers... thank you for that wonderful experience."

## **DISCUSSION**

This study allowed us to verify the benefits of the elective discipline of dental care for patients with special needs at the School of Dentistry, UFRGS, for the training of its academicians, as 89% of students did not feel uncomfortable with PSN behavior, 93.7% did not feel irritated and 82.8% did not feel tense during the sessions.

The results of this study are consistent with those of Gomes (2009) <sup>(16)</sup>, who concluded that the philosophy of care for PSN by undergraduate students of the dentistry degree should provide non-technical learning, but seek, mainly, to provide a

scientific basis for them to act safely when faced with the different neuropsychomotor and/or systemic problems of these patients. In addition, it prepares future professionals so they can offer more humane treatment, and encourages interpersonal relationships with the patient and person responsible/caregiver.

The experiences and relationships that students live, throughout their academic training, are fundamental to define the professionals they will become. Students need to have some contact with PSN during their undergraduate studies in order to familiarize them with such patients and to demystify many preconceptions about this type of care.

The discipline of dental care for patients with special needs at the FO-UFRGS welcomes students in the morning and evening sessions, from the third semester, who provide clinical support in the tenth semester as part of the care provided to patients of the Center for Dental Specialties (CEO), and in the eighth and ninth semesters for those students who choose it as an elective course.

We agree with Ryan et al. <sup>(17)</sup>, who state that contact with PSN during undergraduate studies, regardless of the semester, gives students countless opportunities and lessons learned that they would otherwise not receive, in addition to testing their professional commitment and presenting them with a more realistic view of the world.

Furthermore, as a treatment option for these patients, general anesthesia is used in many cases. Moraes <sup>(18)</sup> believes that in dentistry, there is a need to establish a special relationship and trust between the professional and the patients, in order to minimize threatening and stressful situations. This is even more important for PSN, as this fact allows many treatments to be carried out outside a hospital environment. Only scientific knowledge and technical skill are not sufficient for certain difficult situations that occur during dental care for PSN; professionals need to be sensitive to identify each case, and this can only be acquired with practice, which is why it is necessary to have this experience during undergraduate studies.

There are patients with systemic disorders/syndromes that are difficult to care for in the clinical practice with PSN, as Gryst <sup>(19)</sup> stated: they have great difficulty cooperating, tire very quickly and have severe attention deficits. The students surveyed found that the most complicated cases were patients with autism and cerebral palsy. However, despite the difficulties, they did not fail to care for these patients.

In 2002 in Brazil, Dental Care for Patients with Special Needs was established and regulated as a specialty by the Federal Council of Dentistry <sup>(12)</sup>, with the intention of training dental surgeons to care for such patients, who need special dental care throughout their life or a specific period. This marked the beginning of a movement in favor of the health rights of PSN in the dental area, in addition to promoting the creation of space and a process to give more value to this specialty. Still, dental care for PSN remains a challenge for dental surgeons, as only few of them are trained to treat them, both in the public and private sectors <sup>(20)</sup>.

Figueiredo <sup>(13)</sup> emphasizes that social inclusion regarding PSN care in health services must be established as an essential quality factor of the services provided. Regarding dentistry, the dental surgeon needs to be prepared to provide this type of care and university studies may be the best option to begin this training. According to this study, 76% of students who took this subject feel ready to care for such patients after graduation.

Interestingly, given all the knowledge acquired while taking the subject, 98.4% of the students surveyed recommend their peers take the PSN course. The training they received has helped them reduce their anxiety, uncertainty and intimidation when caring for such patients after graduation. We believe that this area of learning should not only be covered with the regular education structure, but rather it should encompass a range of other training activities (21).

Despite the positive responses received regarding the care and discipline of dental care for PSN at FO-UFRGS, 67% of students do not have an interest in the specialty. This result agrees with what Amaral <sup>(22)</sup> found: most of the students researched (70%) do not wish to pursue the specialty of Care for PSN. However, 69% of students in this study responded that they would provide care to PSN in their private practice and 21% said they would try to do so.

In Brazil, not all dental degrees provide adequate and specific preparation for PSN Care. A study conducted by Fassina <sup>(23)</sup> in universities throughout Brazil revealed that 56.36% of them have PSN-related content in their curriculum. Of the latter, 70.97% have this content as mandatory and 29.03% as elective. In addition, they found that 45% of students chose to take this subject when it was an elective course. In this study, 100% of the students surveyed said that care for PSN as a subject was important for their

academic training and that it should be mandatory in dentistry studies. This is similar to what Santos <sup>(24)</sup> found: 94% of the students participating in his study had the same opinion. In 2017, Ferreira et al. <sup>(25)</sup> verified the perception of the graduate student in dentistry regarding the care for people with disabilities. They concluded that students were aware of the fact that the opportunity of having this experience in their course helped them become more prepared professionals, outside the university environment, in addition to minimizing the difficulty faced by these patients in seeking care.

In this study, students unanimously felt that dental care for PSN was important for their academic training and that it should be compulsory in the curriculum. Based on the results obtained, we conclude that there is a demand for dental students to have greater contact with patients with special needs within the FO-UFRGS, because, in addition to the scientific knowledge they obtain, it allows them to see other realities and contributes to their training as more humane, well-rounded and better trained professionals.

### **REFERENCES**

- 1. Brazil. Decree nº 3298, 20 December 1999. Dispõe sobre a Política Nacional para a Integração da Pessoa Portadora de Deficiência. [Internet] Diário Oficial da União. Brasilia, DF, 1999 [Cited: 2018 May]. Available from: http://www.planalto.gov.br/ccivil\_03/decreto/d3298.htm
- 2. Brazil. Instituto Brasileiro de Geografia e Estatística IBGE. Características gerais da população, religião e pessoas com deficiência. Censo Demográfico 2010; p.71-89; Rio de Janeiro; 2010.
- 3. Toledo AO. Odontopediatria Fundamentos para a prática clínica. 3rd ed. São Paulo: Editora Premier; 2005.
- 4. Varellis MLZ. O paciente com necessidades especiais na odontologia manual prático. São Paulo: Santos; 2005.
- 5. Marra OS. Dificuldades encontradas pelos responsáveis para manter a saúde bucal em portadores de necessidades especiais [Dissertation]. Rio de Janeiro (RJ): Universidade do Grande Rio, Escola de Odontologia; 2007.
- 6. Carvalho ML. Deficiente? Quem? Cirurgiões-dentistas ou Pacientes com necessidades especiais? Rev Em extensão. 2004; 4 (1): 65-71.
- 7. Silva ZC M, Pagnoncelli SD, Weber JBB, Fritscher AMG. Avaliação do perfil dos pacientes com necessidades especiais. Revista Odonto Ciência Fac. Odonto/PUCRS. 2005 Sep/Oct; 20(50): 313-8.
- 8. Crespi VP, Ferguson FS. Approaching dental care for the developmentally disabled: a guide for the dental practitioner. The New York State Dent J. 1987; 53 (2): 29-32.
- 9. Blinkhorn AS, Kay EJ. First impressions: just what do my patients think of me? Dental Update. 1999; 26 (1): 16-20.

- 10. Fenton SJ. Universal Access: Are we Ready? Spec Care Dentist. 1993; 13:94.
- 11. Brazil. Ministério da educação. Lei nº 9.394, 20 de dezembro de 1996. Lei de Diretrizes e Bases da educação Nacional. [Internet] Senado Federal, Brasília, 19 August 1997. [Cited: 2018 May]. Available from: <a href="https://www2.senado.leg.br/bdsf/bitstream/handle/id/70320/65.pdf">https://www2.senado.leg.br/bdsf/bitstream/handle/id/70320/65.pdf</a>
- 12. Brazil. Ministério da Educação. Resolução n° CNE/ CES 3/2002 de 19 de fevereiro de 2002. Institui as Diretrizes Curriculares Nacionais dos Cursos de Farmácia e Odontologia. [Internet] Diário Oficial, Brasília, 4 Mar 2002. [Cited: 2018 May]. Available from: <a href="http://portal.mec.gov.br/cne/arquivos/pdf/CES032002.pdf">http://portal.mec.gov.br/cne/arquivos/pdf/CES032002.pdf</a>
- 13. Figueiredo JR. Estratégia para a provisão de cuidados no atendimento odontológico a pacientes portadores de deficiência [Dissertation]. São Paulo (SP): Universidade de São Paulo –USP, School of Dentistry; 2002.
- 14. Scully C, Kumar N. Dentistry for those requiring special care. Primary Dental. 2003; 10(1):17-22.
- 15. Morais ABA. Verbalizações de Alunos de Odontologia sobre a Inclusão Social de Pessoas com Deficiência. Psicol estud. 2006 Sep/Dec; 11(3):607-15.
- 16. Gomes MJ, Caxias FP, Margon CD, Rosa RG, Carvalho RB. A percepção dos docentes do Curso de Odontologia da UFES em relação à necessidade de inclusão da disciplina denominada "Atendimento Odontológico a Pacientes Portadores de Necessidades Especiais". Rev Bras Pesqui Saúde. 2009; 11 (1): 33-9.
- 17. Ryan, G.; Toohey, S.; Hughes, C. The purpose, value and structure of the practicum in higher education: a literature review. Higher Education, 1996; 31 (1): 355-377.
- 18. Moraes ABA, Pessotti I. Psicologia aplicada à odontologia. São Paulo: Sarvier; 1985.
- 19. Gryst ME, Mount GJ. The use of glass ionomer in special needs patients. Aust Dent J. 1999; 44 (4): 268-74.
- 20. Marra PS, Miasato JM. A saúde bucal do paciente especial e sua relação com o nível sócio-econômico dos pais. Rev Bras Odontol. 2008; 65 (1): 27-30.
- 21. Neves, C. Reforma e desafios da educação superior: o processo de Bolonha dez anos depois. Sociologia & Antropologia. 2011; 1 (1): 181-207.
- 22. Amaral COF, Aquotte ANC, Aquotte LC, Parizi AGS, Oliveira A. Avaliação das expectativas e sentimentos de alunos de odontologia frente ao atendimento de pacientes com necessidades especiais. RFO Passo Fundo. 2011 May/Aug;16(2):124-9.
- 23. Fassina AP. Análise da disciplina de pacientes portadores de necessidades especiais na Faculdade no Brasil em 2005 [Dissertation]. São Paulo (SP): Universidade de São Paulo USP, School of Dentistry; 2005.
- 24. Santos MFS, Hora IAA. Atenção odontológica a pacientes especiais: atitudes e percepções de acadêmicos de odontologia. Rev. ABENO. 2012; 12 (2): 207-12.
- 25. Ferreira SH, Suita RA, Rodrigues PH, Kramer PF. Percepção do estudante de graduação em odontologia frente ao atendimento de pessoas com deficiência. Rev ABENO. 2017; 17 (1): 87-96