

Dentistry for Patients with Special Needs: an analysis of the curricular structures of Dentistry courses in the Northeast region

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ABSTRACT

The study aimed to analyze the curricular structures of the Dentistry courses in the Northeast region and investigate the curricular component named DPSN (Dentistry for Patients with Special Needs). This is a sectional, descriptive and quantitative study. The data were collected between June and November 2020 on the Ministry of Education's (e-MEC) website and the educational institutions' portals identified by analyzing the curricular structures of the courses. There were 138 authorized Dentistry courses registered on the platform; and, of these, seven were excluded for lack of an updated portal or for not having at least one formed class. Of the 131 analyzed undergraduate courses in Dentistry, it was found that 62 HEI (47.30%) offered the DPSN component, among which 53 (40.50%) offered it as a compulsory component. The state of Paraíba showed the highest frequency (n=13, 86.7%) of the courses offering the curricular component, while the state of Sergipe obtained the lowest frequency (n=1, 16.7%). It is concluded that the DPSN curricular component is little offered in the undergraduate courses in Dentistry in the Northeast region and directly impacts professionals' training to provide better oral health care for this population.

Descriptors: Education, Dental. Students, Dental. Health Human Resource Training.

1 INTRODUCTION

A person with a disability is one who has a long-term physical, mental, intellectual or sensory impairment, which, in interaction with one or more barriers, may hinder his/her full and effective participation in society on an equal basis with others¹. In the last census (2010), it was observed that the number of people with at

least one of the disabilities pre-defined by the World Health Organization (visual, motor, hearing, mental and intellectual disabilities) was 23.9% of the Brazilian population, that is, 45.6 million Brazilians, each one with its own particularity, needing access and a multidisciplinary approach like any other Brazilian citizen².

Aiming to guarantee access and seeking to promote a quality approach following specific adaptations for each individual with special needs, the Federal Council of Dentistry instituted, from Resolution nº 22, dated December 27, 2001, the specialty of Dentistry for Patients with Special Needs (DPSN), with the objective of preventing, diagnosing, treating and controlling oral health problems of patients with some alteration in their biopsychosocial system³.

Nevertheless, the National Curricular Guidelines (DCN, as per its Portuguese acronym) for Dentistry courses in Brazil, published in 2002, did not include dental care for patients with special needs as a specific competence for the dental surgeon, despite establishing as the newly-trained profile a dental surgeon with generalist, humanistic, critical and reflective education, being to work at all levels of health care, based on technical and scientific rigor. Law nº 9,394, dated December 20, 1996, which establishes the Directives and Bases of National Education, determines, in its article 53rd, the autonomy of higher education institutions (HEI) in the construction of their curricular structures. Accordingly, it was up to each HEI to choose whether or not to offer this content or component in its curricular structure.

A change in this scenario occurred recently with the publication of the new DCN, in July 2021⁵, which includes the understanding and mastery of outpatient clinical dental care of the individual with special needs as a curricular content for dental sciences, in addition to inserting the competence of humanization of health care to the care of people with disabilities, stimulating autonomy and self-care. Similarly, the understanding of Brazilian Sign Language (LIBRAS, as per its Portuguese acronym) was added to the communication competence. With the publication of the new DCN and the need to adapt course curricula over the next two years,

there is a need to evaluate the provision of this curricular component in Dentistry courses.

Thus, the objective of this study is to investigate the presence of the DPSN curricular component in the courses of the Northeast region, during the period before the publication of the new DCN, and discuss its relevance to improve the access to dental treatment of patients with special needs.

2 METHODS

This is a sectional, descriptive and quantitative study that evaluated the DPSN curricular component offered by undergraduate courses in Dentistry in the Brazilian Northeast. The curricular component offerings were analyzed based on the data described in the curricular structures of the HEI available on the Internet.

In order to identify the existing undergraduate courses, the Ministry of Education's website was consulted (e-MEC - <http://emec.mec.gov.br>)⁶ between June and December 2020. The adopted exclusion criteria were: institutions that did not have websites, those with outdated data or without classes formed at the final moment of data collection.

After the general listing of Dentistry courses in the Northeast region, a search for the curricular structures began on the websites of each HEI. The dependent variable of the study was whether the course offers the DPSN curricular component. The evaluated independent variables were: federation unit, institution type (public or private), course shift (full-time or only one shift), total course load (up to 4,000 hours and over 4,000 hours), component nature (mandatory or optional), hourly load (15 to 45 hours, between 46 and 100 hours, over 100 hours) and component modality (theoretical, practical or theoretical-practical).

Since this is research with public secondary

data, according to Resolution nº 466, dated December 12, 2012, of the National Health Council, an evaluation by an ethics committee is not required. In data analysis, descriptive statistics was used, showing absolute and relative frequencies for categorical variables and measures of central tendency for quantitative variables. In order to evaluate the association between the offered curricular component and the other variables, Pearson's chi-square test was used, with a 5% significance level.

3 RESULTS

A total of 138 HEI offering undergraduate courses in Dentistry the Northeast region was identified. Of these, seven were excluded for not providing updated curricular structure or not having at least one formed class, being analyzed 131 courses (94.9%) (table 1).

It was observed that Bahia is the state with the highest number of HEI (n=41, 31.3%) in the region. Concerning the courses' operation shift, the modality of only one shift (morning, afternoon or evening) showed the highest frequency (n=87, 66.4%). Of the 131 analyzed HEI, 111 (84.7%) are private. Regarding the total hourly load of the undergraduate course in Dentistry, 93 (71.0%) courses have over 4,000 hours. Of the 131 undergraduate courses in Dentistry, 62 (47.3%) offer the DPSN curricular component (table 1).

The characteristics of the DPSN curricular components were also analyzed, where it was observed that they are part of the mandatory subjects in 53 HEI (40.5%). In 28 courses (21.4%), these components are theoretical; and, in 27 (20.6%), their average hourly load is between 45 and 100 hours (table 2).

When evaluating the frequency of the curricular component offering from the characteristics of the evaluated courses, it was observed that, among the evaluated variables, the

one that directly influenced the curricular component offering was the federation unit in which the course is offered. The state of Paraíba showed the highest frequency (n=13, 86.7%) of courses offering the curricular component, while the state of Sergipe had the lowest frequency (16.7%), with only one course offering the curricular component (p=0.004). On the other hand, the shift in which the course is offered, the institution type and the course load did not influence the offering of the evaluated curricular component (table 3).

4 DISCUSSION

The research revealed that offering the DPSN curricular component is not very common in the Northeast region, given the proportion of 47.3% of the courses that make it available in their curricular structure, considering its essentiality for comprehensive dental care to this group of individuals. The prevalence changes according to geolocation, being more prevalent in states such as Paraíba, Maranhão, Rio Grande do Norte, Piauí and Bahia.

The other selected variables, such as hourly load, institution type and shift, were not relevant in determining the offering of the subject. In public institutions, there was a tendency to offer less of this component in detriment of private ones, as well as in one-shift courses compared to full-time courses, and in courses with less hourly load compared to those with more hourly load.

For dental training, the generalist preparation has a direct influence on the constitution of a future professional able to work at different levels required by health care, offered to any citizen⁷. Accordingly, Resolution nº 3 of the National Education Council, issued on June 3rd, 2021, seeks to ensure the training of generalist professionals with the ability to promote health to their patients regardless of his/her particularities⁵.

However, it is up to the educational institutions to incorporate it in their Political Pedagogical Projects, according to the Law of Directives and Bases of Education (Law nº 9.394/96)⁴, and state and municipal laws can be important instruments for this inclusion.

Table 1. Characteristics of the Dentistry courses in the Northeast region and presence of the curricular component named Dentistry for Patients with Special Needs

Characteristics of the courses	n	%
<i>Federation Unit</i>		
AL	7	5.30
BA	41	31.30
CE	15	11.50
MA	12	9.20
PB	15	11.50
PE	17	13.00
PI	10	7.60
RN	8	6.10
SE	6	4.60
<i>Shift</i>		
Full Time	44	33.60
Only one shift	87	66.40
<i>Institution type</i>		
Public	20	15.30
Private	111	84.70
<i>Undergraduate course load in Dentistry</i>		
Up to 4,000 hours	38	29.00
Over 4,000 hours	93	71.00
<i>It has the DPSN subject</i>		
Yes	62	47.30
No	69	30.40

Table 2. Characteristics of the DPSN components present in the Dentistry courses in the Northeast region

Characteristics of the curricular components	n	%
<i>Compulsory requirement</i>		
Mandatory	53	40.50
Optional	9	6.90
<i>Hourly load</i>		
15 to 45 hours	14	10.70
46 to 100 hours	27	20.60
Over 100 hours	14	10.70
No information	8	6.10
<i>Modality</i>		
Theoretical	28	8.9
Practical	21	14.1
Theoretical-practical	13	27.4

Table 3. Analysis of the curricular component named Dentistry for Patients with Special Needs according to the characteristics of the Dentistry courses in the Northeast region

Characteristics of the courses	It has the DPSN curricular component				p-value
	Yes		No		
	n	%	n	%	
<i>Federation Unit</i>					
Alagoas	2	28.60	5	71.40	0.004
Bahia	18	43.9%	23	56.1%	
Ceará	6	40.00	9	60.00	
Maranhão	8	66.70	4	33.30	
Paraíba	13	86.70	2	13.30	
Pernambuco	3	17.60	14	82.40	
Piauí	6	60.00	4	40.00	
Rio Grande do Norte	5	62.50	3	37.5	
Sergipe	1	16.70	6	83.30	
<i>Shift</i>					
Full Time	19	43.20	25	56.80	0.499
Only one shift	43	49.40	44	50.60	
<i>Type of Institution</i>					
Public	9	45.00	11	55.00	0.821
Private	53	47.70	58	52.30	
<i>Course load</i>					
Up to 4,000 hours	16	42.10	22	57.90	0.444
Over 4,000 hours	46	49.50	47	50.50	

The state of Paraíba, where the highest percentage of offering was observed, has since 1997, Law nº 6.539/97⁸, which provides for measures to prevent caries, periodontal disease and oral cancer, and this may serve as an incentive to the composition of the local curriculum structure. The state of Piauí also has local policies aimed at the disabled person, one of which is the Integrated Rehabilitation Center (CEIR, as per its Portuguese acronym), indicated, within the disabled person's booklet, published by the Brazilian Bar Association/PI, which ensures specialized services of high and medium complexity, exclusive to this public⁹.

A study carried out in 2005 analyzed the DPSN subjects in Brazil and showed that 56.3% of the institutions said they approached the subject in their educational program, either in practical or theoretical modality¹⁰. The same reaffirms the worrisome scenario exposed in this research, given the time elapsed of 15 years between studies and the still high percentage currently found for the Northeastern states. Following the same line of reasoning, a study carried out with final-year dental students in public universities in Malaysia, with the objective of elucidating the educational experience related to the subject for special patients¹¹, found that most students knew it as a specialization modality and demonstrated insufficient knowledge in defining the modality. When asked about performing procedures on these patients, they said they had little knowledge about their management. In light of the foregoing, the need to incorporate the subject into the mandatory curricular matrix for training, recognized even by the student body, becomes undeniable.

Citing an analogous case, the International Association for Disability and Oral Health (IADH) is developing guidelines that will be guiding elements for the curricula of European undergraduate courses in Dentistry on the topic of special care, given the deficiency of even generic

skills detected in the teaching and learning process of the professionals trained in this region, a factor no longer accepted in view of the clinical challenges to be met¹².

The relevant study by Queiroz *et al.* (2014)¹³ evaluated the oral health condition of children with special needs in an adapted school in the state of Paraíba. As a result, they obtained an average DMF-T of 12.6 with 52% of students with poor oral hygiene. It can be inferred that this fact stems not only from the lack of independence or physiological conditions of the patient, but also from the absence of instruction that should be given to the caregiver or companion regarding the control of oral health. In addition, it was also obtained that 33.3% of the guardians elected not only the difficulty of finding a dental surgeon to treat their children as a barrier to maintaining oral health, but also admitted the cost of treatment as a limiting factor. This reality highlights the need for the dental surgeon to enter into the patient's multidisciplinary routine; the difficulty of access to satisfactory and affordable treatment, as provided for in the National Policy for the Health of Persons with Disabilities; and the multifactorial nature of biofilm-dependent diseases.

It was also possible to observe that the group of citizens in question is more vulnerable to developing dental problems, but, in contrast, they are sometimes the most neglected in terms of access to the required care¹⁴. For example, patients with intellectual disabilities are more likely to develop severe periodontal disease compared to the general population¹¹. Furthermore, investigations show that these patients are less likely to have received dental treatments; and, when performed, they unveil a more mutilating than conservative profile, given the observed condition of oral health, i.e., a picture motivated sometimes not only by physiological changes, but also by the consumption of prescribed drugs and lack of education regarding health maintenance¹⁵. Another essential issue is to

guarantee the inclusion of these patients in society, encouraging their independence as much as possible, as a way to increase their self-esteem, take them out of poverty and, consequently, promote quality of life and health¹⁶.

As for the hourly load of the subject, it was still possible to observe expressive results below 45 hours, which can compromise the dental surgeon's training. As an example, it is essential that the modality of the offered course is theoretical-practical, in order to stimulate the social-biological-behavioral macrovision at the time of care and the strategies of conditioning and management prior to practice.

In a study that evaluated the Dentistry student's point of view regarding the care provided to patients with special needs by means of questionnaires before and after coexisting with the patient and his/her family, it was comparatively obtained that the experience of this reality changed the students' judgment in relation to the provided care, awakening a more human look and proving to be an alternative in the educational process in Dentistry¹⁷. In addition, it is important that the offering of the component is adequate to the Law of Directives and Bases of Education, in order to ensure effectiveness in the developed plan. Dellavia *et al.* (2014)¹⁸ carried out a study that evaluated the health education aimed at these patients in Italy, through a questionnaire applied to students from four Dentistry schools. As a result, they obtained that 83% of the students judged the training they received as bad, and more than 50% declared an interest in working specifically with this audience after their training.

Moreover, still in the context of the preparation of the undergraduate student in Dentistry, it is possible to observe that health inequities remain a reality. In view of the data explained in the survey, the students declare the need for more structure for their teaching and greater exposure to the disabled community, when

the collected qualitative thematic information was analyzed in the focus group¹⁹. The exposed panorama puts into discussion that the compulsory requirement of the component is not only justified by market demand, but also by incorporating to the students' education what they consider necessary and little covered.

Therefore, this obstacle must be overcome; and, to that end, it is necessary to guarantee the dental surgeon's knowledge to answer and meet the diverse needs of the vulnerable and disadvantaged population, in order to guarantee good services in Primary Health Care and avoid the aggravation of the needs for specialized care. One of the ways to achieve this reality is the inclusion of dental care for patients with special needs in the composition of theoretical and clinical activities required for the completion of the Dentistry course, ensuring access to the required skills and thus eliminating possible barriers in the context of service. In addition, extension projects are important tools to access this audience in a more specific way, offering students the opportunity for numerous clinical experiences in a school environment, with a view to preparing them for future experiences. Moreover, research projects in this sense should be encouraged with the objective of informing and contributing to the academic education of those involved.

As limitation of the study, it should be mentioned the difficulty in accessing information about the curricular structure of some of the analyzed institutions, which can cause a risk of bias in the selection of the evaluated courses. As potentialities, it is underlined the exposure of the need to include the care of the patient with special needs in the Dentistry training, considering the patients' needs and the inexpressiveness with which the topic is seen.

5 CONCLUSION

By analyzing the curricular structures of the Dentistry courses in the Northeast region and the

presence of the DPSN curricular component, it is concluded that, despite its importance, it is little offered. This reality can directly impact the generalist training of oral health professionals, especially newly-trained and non-specialists, who will not only be less able to provide oral health care to this audience, especially in primary health care, but will also hold restricted knowledge in the area, due to lack of previous minimal experience.

RESUMO

Odontologia para Pacientes com Necessidades Especiais: uma análise das estruturas curriculares dos cursos de Odontologia da região Nordeste

O estudo objetivou analisar as estruturas curriculares dos cursos de Odontologia da região Nordeste e investigar a presença do componente curricular Odontologia para Pacientes com Necessidades Especiais (OPNE). Trata-se de um estudo seccional, descritivo e quantitativo. Os dados foram coletados entre junho e dezembro de 2020 no sítio eletrônico do Ministério da Educação (e-MEC) e nos portais das instituições de ensino identificadas, com análise das estruturas curriculares dos cursos. Havia 138 cursos de Odontologia autorizados e cadastrados na plataforma e destes, sete foram excluídos por ausência de portal atualizado ou por ainda não ter formado pelo menos uma turma. Dos 131 cursos de graduação em Odontologia analisados, verificou-se que 62 IES (47,30%) ofertavam o componente OPNE, dentre as quais 53 (40,50%) o ofertavam como componente obrigatório. O estado da Paraíba apresentou a maior frequência (n=13, 86,7%) de cursos que ofertam o componente curricular, enquanto o estado de Sergipe obteve a menor frequência (n=1, 16,7%). Conclui-se que o componente curricular OPNE é pouco ofertado nos cursos de graduação em Odontologia na região Nordeste, o que pode impactar diretamente na capacitação dos profissionais para prestar um melhor cuidado de saúde bucal para essa população.

Descritores: Educação em Odontologia. Estudantes de Odontologia. Capacitação de

Recursos Humanos em Saúde.

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