

Clinical and demographic characteristics of people with disabilities attending a dental teaching clinic

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ABSTRACT

The aim of this article was to describe the clinical and demographic characteristics of people with disabilities attending a dental teaching clinic in northeastern Brazil, and to associate these profiles with the cumulative needs and treatments performed from March to July 2019. This was a database study in which sex, age, medical diagnosis, medication use, reason for consultation, and previous treatments obtained from the medical records were evaluated. A convenience sample of 55 records from patients seen during this period was used. The chi-square test and Fisher's exact test were applied to evaluate the association between the variables studied, adopting a 95% confidence interval and an error margin of 5%. Most patients were male (52.7%) and were between 20 and 59 years old (54.5%). The most prevalent underlying diseases were systemic diseases (34.5%) and intellectual disability (32.7%). Regarding medications, 80% of the patients continuously used some drug. The reason for consultation was pain in 60% of the sample and restorative procedures were the most frequently performed (63.6%). Moreover, patients with intellectual disability commonly required physical restraint and sedatives. The dental consultations comprised patients with different special needs. Although the teaching clinic prioritizes preventive management, most of the procedures performed were curative, a fact that might be related to the late seeking of dental treatment and difficulties of accessing health services.

Descriptors: People with Disabilities. Oral Health. Dental Care.

1 INTRODUCTION

According to the International Classification of Functionality, Disability and Health¹, impairments represent a deviation from the generally accepted normal biomedical standard of body structure and function. These impairments can be temporary or permanent; progressive regressive or static; intermittent or continuous. Deviation from the population standard generally accepted as normal can be mild or severe, varying over time, and can affect intellectual, sensory, neuromusculoskeletal, endocrine, and immunological functions.

People with special needs (PSN) have one or more temporary or permanent intellectual, physical, sensory, emotional, growth or medical limitations that impairs them from undergoing conventional dental treatment. This concept is broad and encompasses diverse cases that require differential dental care².

Knowledge of how to identify PSN is important in order to adapt the treatment according to the peculiarities of these patients³. Despite the need for adequate dental care, the World Health Organization (WHO) reports that only 3% of the population of disabled people have access to dental treatments⁴. A change in all approaches is necessary and the need for effective public health services must be recognized in order to include these people with disabilities in health actions⁵.

A person with disabilities has numerous problems of different etiologies, including communication, movement and sensory disorders, with constant medical and dental problems compromising the person's well-being. This reality highlights the need for an integrated and specialized multiprofessional health team⁶.

Failure to meet the dental care needs of PSN is often not directly related to the difficulties encountered at health services nor to the special needs of the patient. These difficulties may be

associated with the professionals themselves rather than with the dental technique, in addition to the complexity of care for PSN ranging from the approach used to the patient himself⁵.

PSN have a higher prevalence of oral diseases such as caries, tooth loss, periodontitis, parafunctional habits, and malocclusions. These conditions are often due to inadequate oral hygiene as a result of the patient's physical and mental limitations, type of diet, chewing and swallowing problems, or daily medication use⁷.

The care for patients with special needs provided by graduate professionals does not only permit the learning of preventive and curative techniques but also provides experiences with other sciences such as interpersonal relations, which will contribute to the training of each student as an individual. It is therefore important to quantify and qualify this group of patients in order to better characterize the care service and to provide high-quality education to the student⁸. Although the curriculum of some institutions does not contain the discipline of PSN, its inclusion is very important for the formation of a professional who works within a new perspective focused on humanized and comprehensive care^{9,10}.

The academic staff of the Patients with Special Needs and Hospital Dentistry discipline of the Dentistry Course of the Federal University of Pernambuco is specialized in the care of this population. The clinic receives children and adults with special needs from all over the state for clinical, preventive and emergency care provided by undergraduate students under the supervision of their teachers. In view of the above considerations, the aim of this study was to describe the clinical and demographic characteristics of patients attending this clinic, and to associate the findings with the cumulative needs and treatments carried out from March to July 2019.

2 METHODS

This is a database study conducted at the teaching clinic of the discipline of Patients with Special Needs and Hospital Dentistry, northeastern Brazil. The project was approved by the local Ethics Committee (Approval number 3.137.501).

The data were collected from the dental records of patients of both sexes seen at the clinic between March and May 2019. The following data of the users of this clinic were recorded: sex, age, region of residence, medical diagnosis of the disability, medication use, reason for consultation, use of sedation, previous treatments, and behavioral disorders.

For descriptive analysis, the results are reported as absolute values and respective percentages in tables. The chi-square test and Fisher's exact test were used to evaluate the association between the variables studied. A p value <0.05 was adopted as statistically significant, assuming a 5% error and a 95% confidence interval. The data were analyzed using the SPSS 23.0 software (IBM, Armonk, NY, USA).

3 RESULTS

Fifty-one records of patients seen from March to July 2019 were evaluated. As can be seen in table 1, most patients (52.7%) were male and 54.5% were between 20 and 59 years old. Only 16.4% of the subjects lived in the interior of the State of Pernambuco and the majority (58.2%) used a bus as the main means of transportation to the dental appointment. In addition, care was mainly provided by the mother in 56.4% of cases.

Regarding health conditions and continuous use of medications, most of the attended patients (34.5%) had systemic diseases. The majority (80%) continuously used some drug, with 13 (23.6%) reporting the use of

antipsychotics and 11 (20.0%) taking medication to reduce anxiety (table 2).

With respect to the reason for consultation and oral health status of the sample studied, 60% of the patients sought the clinic because of pain and 90.9% never had interurrences during dental treatment. Physical restraint was necessary in 20% of the patients and 72.7% required sedatives during all visits, except for the first one. Regarding the procedures performed, 63.6% were restorative procedures and 30.9% were surgical procedures (table 3).

Table 4 shows the analysis of the association between the underlying disease and the other variables. The mother was the main caregiver in the case of patients with intellectual disability (88.9%), who were also the group that most frequently required physical restraint (55.6%) and sedatives (50%) during dental treatment. All patients with systemic diseases, as well as those with physical and sensory disabilities, were cooperative during dental treatment at this clinic ($p<0.01$).

4 DISCUSSION

Analysis of the clinical and sociodemographic profile of the present sample receiving dental treatment revealed patients with different special needs, of different ages and with different treatment needs, thus demonstrating the importance of better dental care for this population that addresses its particularities^{5,6}.

There was a higher prevalence of male patients, in agreement with other studies^{11,12}. In contrast, in another study involving a similar population most patients were female¹³. The 20- to 59-year age range was the predominant age group (54.5%), in agreement with other studies^{14,15}.

Most patients were residents of the metropolitan region of Recife. This finding agrees with the literature^{9,15}, in which most patients lived in the same city or region near the place where they

received care. The importance of the referral clinic in the local reality, the Center of Dental Specialties (CEO), should be highlighted since there are cases that exceed the limits of primary care services and that require a specialist based on public policies that guarantee access of the individual to comprehensive care at all levels of complexity¹⁶.

Table 1. Sociodemographic profile of patients treated at the Clinic for Patients with Special Needs

Variables	n	%
<i>Sex</i>		
Male	29	52.7
Female	26	47.3
<i>Age (years)</i>		
3 – 19	22	40.0
20 – 59	30	54.5
60 – 72	3	5.5
<i>Region of residence</i>		
Recife and metropolitan region	44	83.6
Interior	9	16.4
<i>Access to treated water</i>		
Yes	49	89.1
No	6	10.9
<i>Attending school</i>		
Yes	21	38.2
No	24	43.6
Did not answer	10	18.2
<i>Working</i>		
Yes	6	10.9
No	39	70.9
Did not answer/not applicable	10	18.2
<i>Means of transportation to the dentist</i>		
Bus	32	58.2
Private car/taxi	13	23.6
Ambulance	1	1.8
Municipal transport	6	10.9
Others	3	5.5
<i>Caregiver of the patient</i>		
Mother	31	56.4
Other	24	43.6

Table 2. Health profile of patients treated at the Clinic for Patients with Special Needs

Variables	n	%
<i>Special health needs</i>		
Physical disability	3	5.5
Intellectual disability	18	32.7
Sensory impairments	2	3.6
Multiple causes	9	16.4
Systemic diseases	19	34.5
Pregnancy	3	5.5
Cancer	1	1.8
<i>Currently under treatment</i>		
Yes	42	76.4
No	13	23.6
<i>Continuous medication use*</i>		
Anticonvulsant	9	16.4
Antipsychotic	13	23.6
Anxiolytic	11	20.0
Antiepileptic	9	16.4
Antidepressant	4	7.3

*Patients may use more than one type of medication.

Systemic diseases were the most prevalent underlying diseases in the patients attending this clinic, followed by intellectual disability, similar to another study on PSN¹⁷. It should be noted that many patients with systemic impairment, as well as pregnant women, can attend other clinics that are not specialized in PSN since the same procedures as in the general population are performed.

The results of another study agree with the present finding showing that most patients continuously used medications¹¹. Anxiolytics were the most frequently used medication in this study. This finding was also observed in another study that reported an increase in the number of individuals with prolonged use of these drugs¹⁸. Antidepressants was the least used class, as

reported in other studies^{4,14}. It should be noted that some of these medications can promote gingival overgrowth which, together with poor oral hygiene, can cause inflammation and the development of early periodontal disease^{19,20}.

In the present study, mothers were the main caregivers of the special needs patients and consequently the person with whom the patients most related. Similar results have been reported in other studies^{4,13}. Another study found that many patients are dependent on a caregiver for oral hygiene and that the mother is the caregiver in more than 85% of cases⁴. The possible neglect of children's oral health by parents or legal representatives is due to physical, intellectual and social difficulties and the prioritization of other types of care²¹.

Table 3. Dental characteristics observed during the patient's anamnesis and treatments performed

Variables	n	%
<i>Reason for consultation</i>		
Urgency	33	60.0
Routine/revision	22	40.0
<i>Dry mouth</i>		
Yes	17	30.9
No	38	69.1
<i>Burning mouth</i>		
Yes	4	7.3
No	51	92.7
<i>Has or had white spots on the oral mucosa?</i>		
Yes	3	5.5
No	52	94.5
<i>Frequent presence of mouth ulcers</i>		
Yes	4	7.3
No	51	92.7
<i>Halitosis</i>		
Yes	24	43.6
No	31	56.4
<i>Use of physical restraint</i>		
Yes	11	20.0
No	44	80.0
<i>Use of sedatives</i>		
Yes	44	80.0
No	11	20.0
1 visit	2	18.2
2 or more visits	1	9.1
All visits, except for the first one	8	72.7
<i>Procedures performed*</i>		
Diagnostic	55	100.0
Preventive	34	61.8
Endodontic	19	34.5
Periodontic	30	54.5
Surgical	17	30.9
Operative dentistry	35	63.6
Orthodontic	1	1.8

* Patients may have undergone more than one type of procedure.

Table 4. Type of approach used during dental treatment according to special health needs

Variables	Special health needs					p-value
	Physical disability n (%)	Intellectual disability n (%)	Sensory impairment n (%)	Multiple causes n (%)	Systemic diseases n (%)	
<i>Caregiver</i>						
Mother	2 (66.7)	16 (88.9)	1 (50.0)	7 (77.8)	5 (26.3)	<0.01*
Other	1 (33.3)	2 (11.1)	1 (50.0)	2 (22.2)	14 (73.7)	
<i>Reason for consultation</i>						
Pain	0 (0.0)	12 (66.7)	2 (100.0)	3 (33.3)	12 (63.2)	0.07*
Routine/revision	3 (100.0)	6 (33.3)	0 (0.0)	6 (66.7)	7 (36.8)	
<i>Intercurrences during dental treatment</i>						
Yes	0 (0.0)	3 (16.7)	0 (0.0)	1 (11.1)	1 (5.3)	0.77*
No	3 (100.0)	15 (83.3)	2 (100.0)	8 (88.9)	18 (94.7)	
<i>Behavior during dental visit</i>						
Cooperative	3 (100.0)	8 (44.4)	2 (100.0)	8 (88.9)	19 (100.0)	<0.01*
Non-cooperative	0 (0.0)	8 (44.4)	0 (0.0)	1 (11.1)	0 (0.0)	
Aggressive	0 (0.0)	2 (11.2)	0 (0.0)	0 (0.0)	0 (0.0)	
<i>Use of physical restraint</i>						
Yes	0 (0.0)	10 (55.6)	0 (0.0)	1 (11.1)	0 (0.0)	<0.01*
No	3 (100.0)	8 (44.4)	2 (100.0)	8 (88.9)	19 (100.0)	
<i>Use of sedatives</i>						
Yes	0 (0.0)	9 (50.0)	0 (0.0)	1 (11.1)	1 (5.3)	0.01*
No	3 (100.0)	9 (50.0)	2 (100.0)	8 (88.9)	18 (94.7)	

*Fisher's exact test.

In a study evaluating the oral health conditions of PSN, the authors observed that most patients were cooperative during dental treatment and only a minority required physical restraint for the procedures, as confirmed by the results of that study¹⁷. Sedatives were also used by 20% of the patients, which was a favorable alternative for non-cooperative patients.

Dental treatment of PSN requires changes in clinical management, as well as in the understanding of physical/motor difficulties and access to health services²². In the present study, the most common reason for the dental visit was pain (exposed dentin). This finding differs from a study conducted in Criciúma – SC, Brazil, in which a

routine visit was the main reason that led parents or the legal representatives of patients to seek dental care for the first time¹³.

The dental interventions most frequently performed in the present study were restorative procedures followed by preventive procedures, in agreement with other studies^{11,17}. The delay in seeking treatment often prevents early intervention and consequently results in cumulative needs for curative treatment. Preventive measures are indisputably important for all individuals but particularly for PSN due to the difficulties encountered in elective dental treatments²³. Health promotion strategies are therefore of the utmost importance, for example, encouraging dentistry

students to participate in extension projects that will bring this population and their caregivers closer to an effective prevention of oral health problems.

It must be emphasized that the difficulties encountered during dental treatment are due to the lack of control and coordination of jaw, lip and tongue movement in PSN, in addition to the difficulty of relatives or legal representatives in promoting adequate oral hygiene. This situation is aggravated by the following factors: lack of training programs for caregivers; unqualified professionals who are unprepared for this type of care; financial cost; parents' lack of knowledge about treatment possibilities and prioritization of treatment of other systemic problems¹⁴.

Taken together, the present results highlight the importance of attending PSN during undergraduation since it permits to quantify and qualify this group of patients and to better characterize the service provided; in addition, attending PSN provides high-quality education and experiences to undergraduate students that will guide them in providing humanized care to this population.

5 CONCLUSION

The dental consultations comprised patients with different special needs and most procedures performed were curative, a fact that might be related to the late seeking of dental treatment and difficulties of accessing health services.

RESUMO

Aspectos clínicos e demográficos de pessoas com deficiência atendidas em uma clínica-escola de Odontologia

O objetivo deste artigo foi descrever as características clínicas e demográficas de pessoas com deficiência atendidas em uma clínica-escola de Odontologia do Nordeste brasileiro, relacionando estes perfis às necessidades

acumuladas e aos tratamentos realizados no período de março a julho de 2019. Tratou-se de um estudo de análise de banco de dados no qual foram avaliados os prontuários em relação a sexo, idade, diagnóstico médico, uso de medicamentos, motivo da consulta e tratamentos realizados. Foi utilizada uma amostra de conveniência de 55 prontuários, referentes aos indivíduos em atendimento neste período. Os testes Qui-quadrado e exato de Fisher foram utilizados para verificar associação entre as variáveis estudadas. Foi adotado o intervalo de confiança de 95% e a margem de erro de 5%. Verificou-se que a maioria dos pacientes era do sexo masculino (52,7%) e possuía entre 20 e 59 anos (54,5%). As patologias de base de maior prevalência foram as doenças sistêmicas (34,5%) e deficiência intelectual (32,7%). Em relação às medicações, 80% faziam uso contínuo de algum fármaco. A respeito das consultas odontológicas, a procura de 60% da amostra foi por motivo de dor e os procedimentos mais realizados, os restauradores (63,6%). Além disso, a estabilização física e sedação medicamentosa foram amplamente utilizadas nos pacientes com deficiência intelectual. O atendimento odontológico incluiu pacientes com diversas necessidades especiais e, apesar da clínica-escola em questão priorizar a conduta preventiva, a maior parte dos procedimentos executados foi curativo, podendo estar relacionado com a procura tardia pelo tratamento odontológico e dificuldades de acesso.

Descritores: Pessoas com Deficiência. Saúde Bucal. Assistência Odontológica.

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