

Procedures Performed Analysis by Paediatric Dentistry University in Brazil

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Abstract

The dental care offered in higher education institutions (HEIs) contribute solving dental problems of population, offering specialized and free care, including pediatric patients. The course of dentistry at Federal University of Ceara (UFC) -Campus Sobral, Brazil, as well as others, provides assistance to patients with this profile, including the care of people of macro-region of Sobral-CE and being considered a reference to the specific needs in oral health of children. Objective: To analyze the profile of procedures performed in pediatric dentistry service that course. Methods: This is a descriptive study, quantitative and documentary database that analyzed the production for a period of three consecutive years on maps of pediatric patients treated. Results: The results demonstrated a greater demand of care for female patients (50.25%), with a mean age of 6.8 years. Restorative procedures were the most sought after by the service, predominating the restoration of primary teeth (16.93%). Followed by extraction of primary teeth (14.2%) and topical application of fluoride (11.7%). Conclusion: Procedures during the years 2011 to 2014 were considerable and diverse quantity, including fillings, extractions and topical fluoride applications. This demonstrates the importance of Pediatric Dentistry Service course and suggests that there is a need of specialized care for child population and for the promotion of oral health.

Key Words: Dentistry schools, Data collection, Paediatric dentistry

Introduction

The dental service offered in higher education institutions (HEIs), as well as in basic units of health (BUH), they contribute to aid the solvability of the buccal problems of the Brazilian population, above all the one of smaller purchasing power, besides the child population [1]. Many of those services offer specialized and free service to pediatric patient, through pediatric dentistry clinics, as part of an integrated system of the dental specialties [2].

The Ministry of Education and Culture through its expansion politics and internalization of the public university, in 2006, approved the degree course in Dentistry in Sobral. So soon in operation, it started to be reference of dental services of the whole macro region [3]. The infantile clinic began the service to infantile public in 2010, becoming the main center of cases in the macro region, because the region doesn't possess own service for that public in the Dental Specialties Center.

The course of Dentistry of the Federal University of Ceara (UFC)-Campus Sobral, as well as the others, offers services of attendances to the patients with that profile, including the service to people of Sobral-CE and too much associated municipal districts. The operation of the service of children's dental clinic began in 2010, being considered reference for the children's of that macro region specific needs, seen the inexistence of public pediatric dentistry service in Sobral and to the professionals of basic attention unpreparedness in the service to the infantile public, what turns frequent the directions to the service of pediatric dentistry of the course. Though, the profile of that population, as for the conditions of

buccal health, as well as to the elapsed pathologies, it was never analyzed.

In Brazil the basic dental care service doesn't get to supply the demand, especially the infantile, where many cases demand the handling and same service when it is common clinical procedures. In academicals cities, where the service of secondary attention doesn't offer service in pediatric dentistry, the university ends tends a primordial paper in those cases. There are important characteristics that interconnect the basic attention and the secondary in dentistry, as the indiscriminate access without barriers to the specialized attention after the direction, the reference system, an efficient and appropriate direction with feedback for the basic attention at the end of the specialized treatment and the return facilitated to the attention secondary whenever necessary. The advantage of the service accomplished by the university is the offer so much of the procedures clinical as specialized, not having the patient's need to be counterreferenced for basic attention [4].

Statistical risings on the procedures more accomplished during the service and the needs of the demand is a simple work, however of extreme importance [3]. It is through the same ones that she can investigate what such population seeks when looks for the service. Being like this, a rising of the proportion and also of the absolute number of that demand on the part of the children and of their responsible it is done necessary for the development of public politics for that population. The epidemic risings are necessary to inform on the prevalence of the buccal diseases and to esteem the treatment needs. It can be verified that it is starting from the data collected that she can make an appropriate planning for

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like this, to execute and to evaluate actions of promotion of the health, to verify the effectiveness and production of the services, besides allowing comparisons in different periods [5,6].

It was aimed at in that way to evaluate the service of Pediatric Dentistry through a quantitative rising of the procedures executed in patient pediatric that looked for the course of Dentistry of the Federal University of Ceara-Campus Sobral, for like this to evaluate the importance of the service in the area through the inclusion of the same and to investigate the needs of the assisted population, contributing to improve the planning and execution of the developed actions.

Materials and Methods

It is a study retrospective, quantitative and documentally based. The study was accomplished at the Pediatric Dentistry Clinic of the course of Dentistry of the Federal University of Ceara in the city of Sobral, larger city on northeast at the state of Ceara. The maps of daily production of the services were analyzed for dental treatment accomplished in the disciplines of infantile clinic, among the years of 2011 and 2014.

The collection of data was accomplished by the graduation students involved and with the guiding researcher's aid. The study was begun after approval in the Committee of Ethics and Research of the Federal University of Ceará under number 1.140.549. All of the ethical aspects were insured for the resolution CNS 466/12 of National Council of Health.

The rising was accomplished through verification close to the maps of daily production. The map of production of the clinic is the same of the Dental Specialty Centers (DSC) without modifications. After the accounting of the results the same ones were submitted to the statistical processing of the data using the software SPSS version 20.0.

It was made the counting of the production according to the procedures:

- Urgency service;
- Sealant application per tooth;
- Topical application of fluoride;
- Restoration of previous and subsequent permanent tooth;
- Restoration of deciduous tooth;
- Evidence of plaque;
- Periodontal scaling and smoothing;
- Exodontia of deciduous and permanent;
- Access to pulp and medication;
- Gingival tooth molding;
- Provisional cavity sealing;
- Pulpal capping;
- Pulpotomy and pulpectomy;
- Delay curative;
- Prophylaxis;
- Periodontal surgical treatment;
- Odontosection;
- Application of fluoride varnish;
- Tooth contention;
- Installation and apparel maintenance;
- Prosthesis adjustment;
- Suture removal;
- Space maintainer installation;
- Channel filling;
- Alveolitis treatment;
- Other.

Results

Starting from the data analyzed in the maps of daily production, a subtle predominance of services was observed by patients of the feminine gender, where 50.25% of the patients were of the feminine gender and 49.74% of the masculine gender. As for the age group, considering a variation between 0 and 14 years, there was predominance in the patients' service with 7 years (18.67%), 5 years (15.6%) and 6 years (13.98%). The average of the age was of 6.82 years.

The *Table 1* presents the clinical prevalent procedures, with an absolute total value dear of 4121 (100%) procedures accomplished among the years of 2011 and 2014. The prevalence in restoring procedures of deciduous teeth was verified 18.17% (N=749), extractions also of deciduous teeth 14.29% (N=589) and topical application of fluorine 12.10% (N=499).

Table 1. Quantitative description of clinical procedures performed during the years 2011 to 2014.

Procedures	2011	2012	2013	2014	TOTAL	%
Restoration of deciduous	173	353	198	50	774	16.93%
Deciduous extraction	115	293	121	120	649	14.2%
Topical application of fluoride	205	187	71	72	535	11.7%
Application of sealant per tooth	131	205	97	114	547	11.96%
Provisional cavity seal	186	125	36	80	427	9.00%
Restoration of posterior permanent	78	88	58	78	302	6.60%
Supragingival rasping, smoothing and polishing	44	109	39	50	242	5.29%
Evidence of bacterial plaque	64	53	07	02	126	2.75%
Prophylaxis	15	10	10	160	195	4.26%
Gingival tooth molding	12	31	50	32	125	2.73%
Restoration of anterior permanent	16	49	24	24	113	2.47%
Access to pulp and medication	31	35	16	26	108	2.36%
Delay curative with biomechanical preparation	23	21	15	22	81	1.42%

Pulpal capping	29	28	02	06	65	1.42%
Space maintainer installation	09	24	22	08	63	1.37%
Urgent Care	02	07	12	24	45	0.98%
Application of varnish	04	07	16	06	33	0.72%
Permanent extraction	02	07	10	12	31	0.67%
Pulpotomy	04	06	01	04	15	0.32%
Root duct filling	-	04	04	08	16	0.35%
Others	-	-	-	-	78	1.70%
TOTAL					4,570	100%

Discussion

The municipal district of Sobral presents a population of 180.000 inhabitants. Though, for being headquarters of an administrative macro region, that joins other five micro regions, understanding 55 municipal districts, having in this way a population of about 1.500.000 inhabitants [3].

Tends in view the politics of buccal health, it is known about the existence and importance more and more evident of the therapeutic and preventive measures. It is known that the preventive dentistry presents perceptible results in long period, above all, for diseases that cause tooth loss [7,8]. In that way, the referred Pediatric Dentistry Clinic besides the specialized service, it acts with preventive actions. The study observed that, because it presents results that reveal the decrease of restoring procedures and exodontias along the years, being preventive actions as the topical application of fluorine quite a few found. Related works demonstrated that the topical application of fluorine would be, more frequently, the preventive procedure more accomplished, fact no verified in that study [9]. Probably due to the graduation students' majority they check not the due importance to the same, forgetting to write down it in the production map.

The dental decay is the main disease that causes the precocious loss of teeth, being the precocious decay of childhood the more prevalent buccal disease in patients of up to 6 years old [10]. Therefore the importance of the results of the referred study, demonstrating the great number of prevention procedures against such disease.

The number of patients that looked for the service of feminine gender were superior lightly (50.25%) to the masculine (49.74%), data similar to the of other works, where the feminine gender (50.5%) it prevailed slightly on masculine (49.5%). That larger search of the feminine gender can be explained by a larger aesthetic concern by part of that gender when compared to the masculine and due to the feminine population in the country to be predominante [11,12].

As for the age, the average of this was of 6.82 years. Other similar studies present a prevalence of patient infantile of 7 years [11,12]. Such phase is compatible with the mixed teething, demonstrating a larger concern in taking care of the teeth starting from that phase of the life, probably for in that phase the permanent teeth already exist. Unhappily it is

common for the population disregard in the deciduous teething [13].

Besides the foregoing results, it is possible to observe, when just analyzing the restoring procedures, that the restorations of deciduous teeth were evidenced as the main accomplished procedure (16.93%). Much more expressive Number than the one of subsequent permanent teeth (6.60%) and previous (2.47%). An explanation for the largest indexes of restorations in deciduous would be the precocious decay of childhood, buccal disease too much prevalent in children [14].

The loss of elements of the deciduous teething due to the decay is a frequent problem and it attacks most of the Brazilian children's population. In the present study, the extractions of deciduous were the second procedure more accomplished (14.29%) totaling 649 services. When comparing the extractions of deciduous with the ones of permanent, the first ones presented larger number of extractions. Such discrepancy is justified due to the service to be rendered children where most of the teeth is deciduous and due to results of the preventive politics. Therefore, the extractions of permanent teeth tend to decrease along the years.

Besides the decay, other buccal problem of great prevalence is those related to the periodontium [15]. The scratching and root polish were the more current elective interventions accomplished at the clinic corroborating with the discoveries of other studies.

The pulpotomy procedures, in spite of their acquaintances restrictions, are a conservative treatment option thoroughly used in Pediatric Dentistry that seek to the maintenance of teeth, so that it is not necessary the extraction [16,17]. The same was found in the present study, following by the use of delay curative and biomechanic prepare. For being a procedure no accomplished in the basic attention and specialized service not to exist for children in the secondary attention of Sobral, the service of Dentistry ends up being the only free and specialized option of the area.

For they be of extreme importance for the health of the child's estomatognathic apparel, besides they be maintainers of the space, the deciduous teeth when lost before the time commit the chew, phonetics and aesthetics. Therefore, the absence of those it can limit the area in the arch addressed to the permanent ones.

It is also noticed in the study that the services of urgency of the clinic had results similar with other works, showing high amount of procedures of therapy pulpar of dental pain associated to the dental cavity [9,10]. The results stand out that the access to the pulp and medication possesses larger percentile when compared to the other urgencies [18]. Similar works show that pulpar therapy as the second more current cause of urgency services, being still overcome by extractions [19]. In similar study accomplished at the pediatric dentistry clinic in Alagoas in the year of 2006, the cases of urgency corresponded to 34.5%. Being the main causes toothache due to the decay (48.2%) [10].

Conclusion

Invasive procedures as restorations and extractions prevailed in the analysis of the service rendered the child population, what can be related to a preventive buccal health deficiency. This way, the fomentation of preventive actions come back for the pediatric dentistry public and the information of the existence from the same to the population are of fundamental importance for control of those procedures.

The considerable and several amount of the procedures executed during the years of 2011 and 2014 demonstrates the importance of the academic service of Pediatric Dentistry in the city, suggesting that a need of the specialized service exists in relation to the child population of the macro region, seeking like this to the promotion of the buccal health.

Due to the great number of procedures accomplished in that period, it was concluded there to be a great need of the population for the service of Pediatric Dentistry in the municipal district of Sobral and neighboring municipal districts, valuing like this that specialty.

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