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Oral health of institutionalized elderly: management and primary health care

Saúde bucal de idosos institucionalizados: gestão e atenção primária em saúde

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ABSTRACT

Objective: The purpose of this paper was to evaluate the actions developed in oral health directed toward the institutionalized senior population from the perspective of municipal health managers and oral health professionals in primary care in Brazil. Methods: A qualitative, observational, and analytical study was developed and carried out in 11 municipalities between 2008 and 2010. Semi-structured interviews and analysis by ALCESTE software were used. The results from 48 subjects were analyzed. Results: The analysis revealed a 64% and 77% utilization rate for the corpus of health managers and oral health professionals, respectively. An Ishikawa diagram was generated using the subjects' responses to identify the quality problem. Final Considerations: There is a lack of actions and implementation of public policies directed toward seniors, and also a lack of incentives and training to assist the elderly in the municipalities. Therefore, it is necessary to invest in greater attention for senior patients who reside in homes for the aged.

KEYWORDS: Oral health; Homes for the aged; Public health policy; Health management; Primary health care.

RESUMO

Objetivo: Avaliar as ações desenvolvidas em saúde bucal voltadas para a população idosa institucionalizada na perspectiva de gestores municipais de saúde e profissionais de saúde bucal na atenção primária no Brasil. Métodos: Estudo qualitativo, observacional e analítico, desenvolvido e realizado em 11 municípios no período de 2008 a 2010. Foram utilizadas entrevistas semi-estruturadas e análise pelo software ALCESTE. Os resultados de 48 sujeitos foram analisados. Resultados: A análise revelou uma taxa de aproveitamento de 64% e 77% para o corpus de gestores de saúde e profissionais de saúde bucal, respectivamente. Um diagrama de Ishikawa foi gerado usando as respostas dos sujeitos para identificar o problema de qualidade. Considerações Finais: Há falta de ações e de implementação de políticas públicas voltadas aos idosos, além da falta de incentivos e capacitação para assistir idosos nos municípios. Portanto, é necessário investir em maior atenção para pacientes idosos que residem em residências para idosos.

PALAVRAS-CHAVE: Saúde bucal; Instituição de Longa Permanência para idosos; Políticas públicas de saúde; Gestão em saúde; Atenção primária à saúde.

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INTRODUCTION

The development of restorative and preventative actions has greatly boosted oral science. This science was characterized as injurious since it resulted in a high number of tooth extractions. Adults and seniors tended to stay away from public programs for oral assistance, and therefore presented an elevated level of tooth loss[1–3].

Epidemiological surveys conducted in Brazil by the Oral Health National Research (OHNP) in 2003 and 2010 indicated that adults and seniors exhibited concerning levels of tooth loss, dental prosthesis demand, and unsatisfactory periodontal conditions[4–6]. More than 50% of seniors in Brazil have lost all their teeth[7], this reality can be explained by the lack of consistent public policies oriented toward aged persons, limited access to those oral services[4,8] as well as a reflection of an old mutilator model of health care experienced by these people.

In 2004, the OHNP program known as Smiling Brazil proposed recentering oral health attention to the concept of care. Subsequently, actions devoted to the caretaking of seniors and others commenced. In the primary health care (PHC) scope, the program encouraged consolidated oral health teams (OHT), and in the Specialized Attention scope, the program approved the creation of Oral Specialized Centers (OSC) inside the health attention net (HAN)[4,9]. This policy emphasized that oral health is a fundamental factor for a satisfactory quality of life. However, ensuring quality oral assistance requires a multidisciplinary approach with adequate health care and skilled professionals[10].

The progressive growth of the senior population has generated demands on health care and an emerging and growing demand for long-term assistance has occurred requiring serious attention[1,2,9,11,12].

The perception of oral health in people dwelling in senior long-stay institutions (LSI) determined that institutionalized seniors considered their oral health to be satisfactory in several evaluated categories[1,2,10,13,14] such as the opinion of teeth, gums, prosthesis. These results were opposite to what was known to health professionals and revealed that unsatisfactory oral health would require a multidisciplinary intervention to attend to the demands of the population.

According to the International Dental Federation, the prevalence of oral health problems among seniors, such as periodontal disease, dental decay, xerostomia, and oral cancer, is presently high in all countries. Given the increasing need for oral services, it is recommended that a health system should invest more in preventative and restorative oral health actions during an individual's lifetime[10,15].

This paper aimed to evaluate the actions developed in oral health directed toward the institutionalized senior population from the perspective of municipal health managers and oral health professionals in primary care in Brazil.

METHODS

Study outline

An exploratory, qualitative study was performed in eleven small- and medium-sized towns in Brazil during the years of 2008-2010. The manuscript was developed following the Criteria for Qualitative Research Reports (COREQ).

Participants

A total of 48 subjects participated in this study: 27 health managers and 21 oral health professionals. Two municipalities were selected for each region of the country based on the following eligibility criteria: 1) population greater than or equal to 100,000 inhabitants according to the List of Population Projection of the Brazilian Institute for Geography and Statistics to 2005; 2) the percentage of seniors must be greater than or equal to the average number found for each region.

The subject eligibility criteria were: 1) employed at the municipality health department for at least one year; 2) in regards to professional rank, the subject must be part of a Family Health Team (FHT) responsible for assisting an LSI area.

Data collection

Semi-structured interviews were performed during which the subjects commented about the procedures taken toward seniors. The interviews were scheduled with the interviewees, lasted from 20 to 30 minutes and the interviewer was previously trained to conduct the interviews, following the questionnaire. The sessions were recorded and transcribed with the interviewees' permission. The questionnaire was prepared by the research group, according to the recommendations contained in the book "Qualitative researching with text, image and sound: a practical handbook" from Martin Bauer and George Gaskell (chapter 3).

Data analysis

The analysis of the discursive material (*corpus*) was performed on the textual data using the software Analyse Lexicale par Contexte d'un Ensemble de Segments de Texte (ALCESTE), version 4.9 for Windows. It makes statistical calculations and lexical classification of words in a set of texts. It adds semantic roots, defines these roots by class, and observes the role of the word in the text.

To diminish the subjective role that the researcher played upon the purpose of this study, the categorization of classes and axes that resulted from ALCESTE analysis proceeded by ad hoc consultation with three researchers external to the study.

The difficulties identified in the classes were distributed in a theoretical model constructed with the aid of a cause-and-effect, or Ishikawa diagram. This graphic resource is one of the most useful methods to analyze qualitative questions. The diagram evaluates the problem and identifies the causes associated with the organizational structure, work processes, professionals, and patients and therefore helps the managers in their decision making[16].

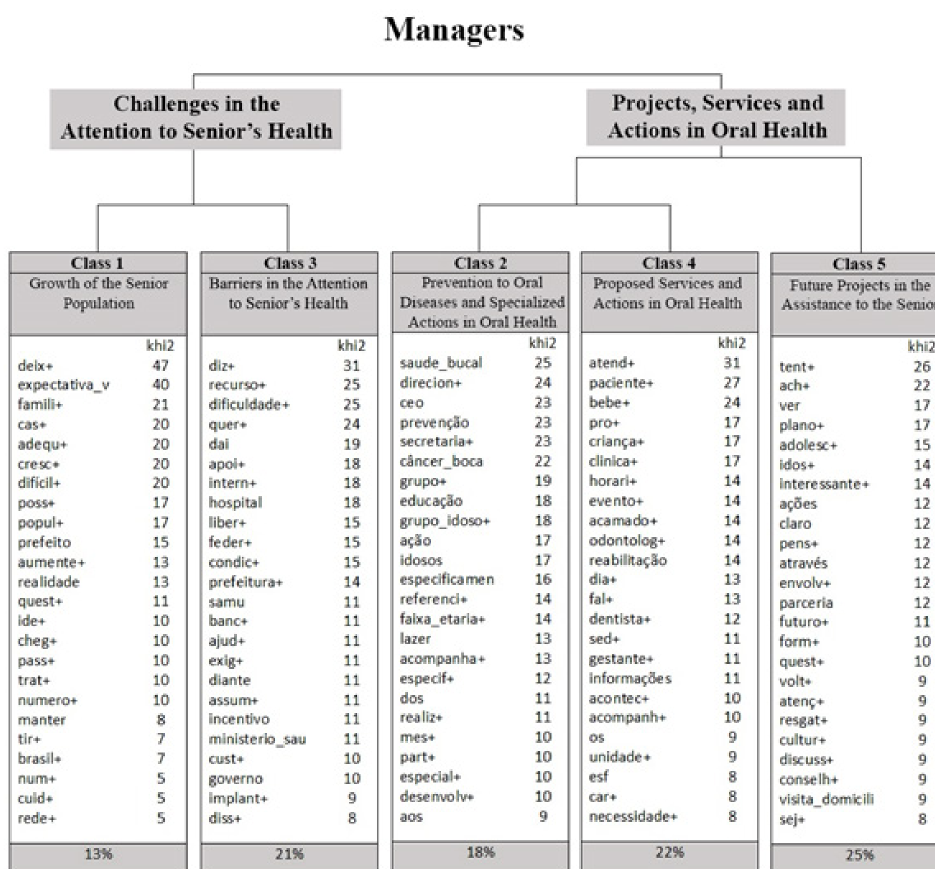
Ethical aspects

The research was approved by the Ethical Committee in Research at the Federal University of Rio Grande do Norte under the SISNEP number 0033.0.051.000-06, respecting the ethical principles that guide research with human beings, as well as the privacy of their contents. The participants signed a Free and Informed Consent Form, accepting to participate in the study.

RESULTS

Of the 27 participating managers, 55.5% were female; eleven were health municipal secretaries, eleven coordinators of oral health, and five seniors' health coordinators. Most coordinators had between 2 and 11 years of experience in public work. The analysis of managers' interviews contributed to 64.0% of the *corpus*. Descending hierarchical classification established two axes and five thematic classes **(Figure 1)**.

Figura 1: Dendrogram describing the words and their integrant roots of classes of the municipal health managers' corpus.



The 21 oral health professional subjects were predominantly female (80.9%) and were distributed in 6 of the 11 evaluated municipalities because only these municipalities possessed an oral health team. Eight (38.0%) of the professionals were dental surgeons, three (14.2%) were oral health technicians, and ten (47.6%) were oral health

assistants.

The analysis of these professionals' interviews comprised 77% of the *corpus*. The descendant hierarchical classification established two axes and three thematic classes **(Figure 2)**.

Figura 2: Dendrogram describing the words and their integrant roots of classes of the oral health professionals' corpus.

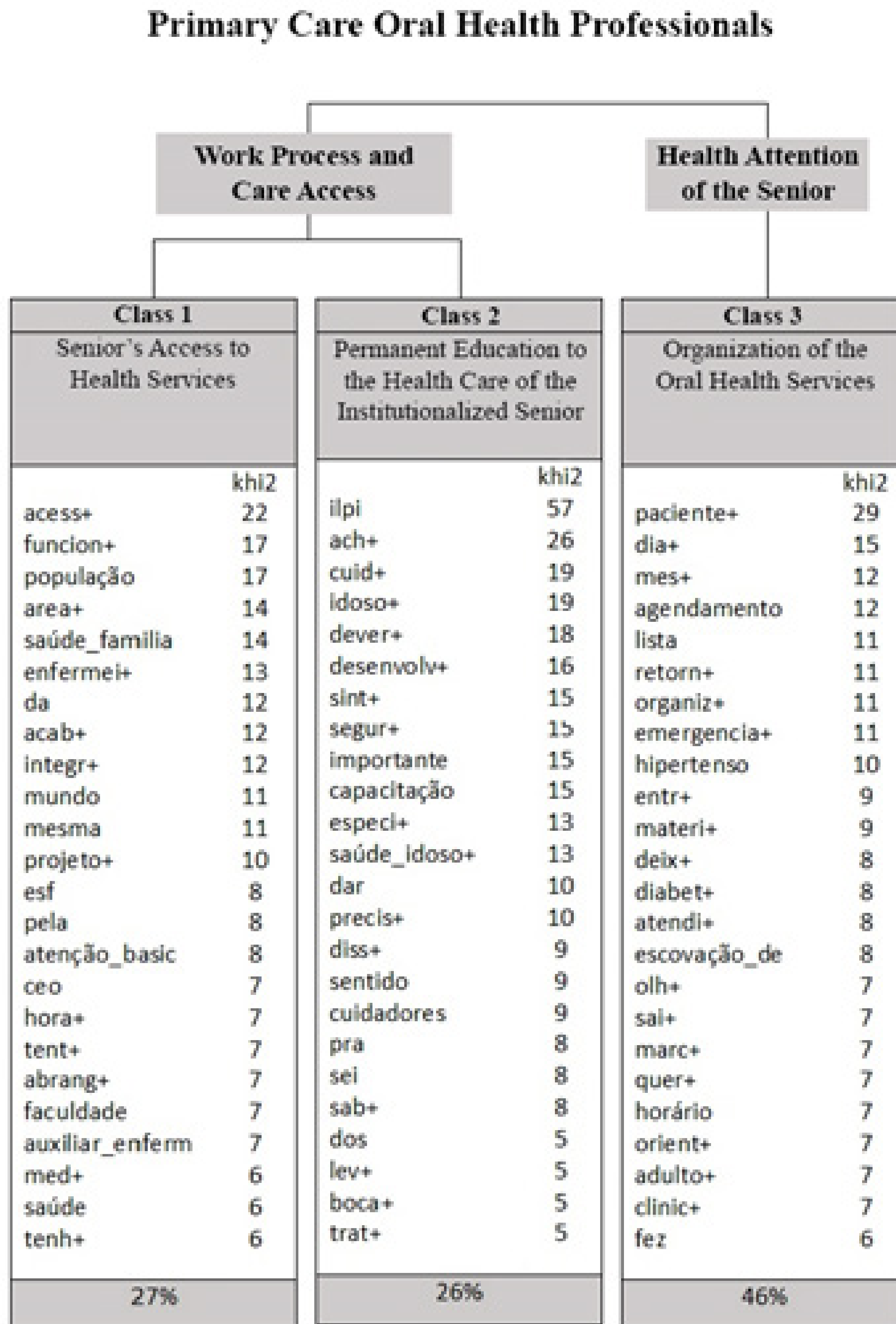
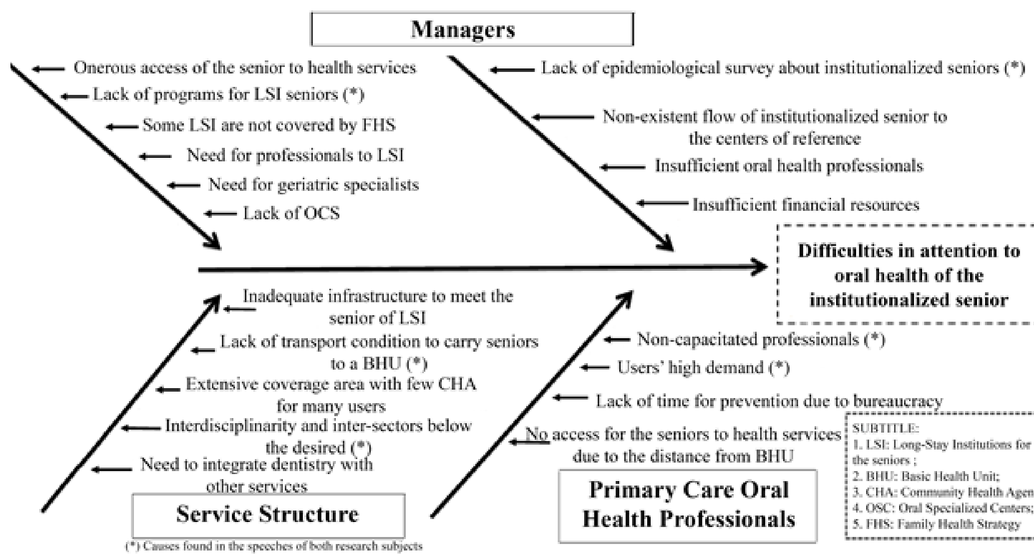


Figure 3 presents the cause-and-effect diagram (or "fishbone diagram") which identified the quality problem "Difficulties in attention to oral health of the institutionalized senior" to the extreme right as if it were a fish head[16]. The diagonal arrows revealed the groups of causes that pointed toward the quality problem. The cause groups were related to problems of organization and structure and were linked to the municipal managers and primary care oral health professionals **(Figure 3).**

Figura 3: Cause-effect diagram applied to the problem "Difficulties in Attention to Oral Health of Institutionalized Senior"



DISCUSSION

Perspective of Municipal Administration

First axis: challenges in the health service for seniors

Class 1, "Senior's Population Growth", highlighted the managers' perception about population aging and the resultant changes in the Brazilian population pyramid. The interviews suggested the necessity of adjusting health services for older people.

Presently, seniors require most health services[1,9,17,18], however, concerning oral health, the use of dental services is still considered very low due to the prevalence of toothlessness (edentulism) and the absence of specific programs[17]. Oral health problems in seniors are derived from socioeconomic, cultural, environmental, behavioral, and organizational determinants that define the levels, types, and risks of the issues[19].

According to Mello and Moysés (2010)[19], public services appear unprepared to meet the growing demand of the aged population because, although these services are legally guaranteed, their accessibility and resoluteness are not effective. Unfortunately, this is still current as there has not yet been a change in public policies aimed at this population. A change in this scenario depends upon the adequacy of the health institution's response to provide appropriate service to elderly people regardless of whether they are institutionalized[18,20]. It is imperative to establish health indicators about the

barriers that prevent seniors from accessing these services and to define epidemiological data concerning their necessities.

The class 3, “Barriers in the Attention to Senior’s Health”, broaches questions about the limitations of public investment and the barriers that prevent integral attention to seniors. The literature reveals that organizational, geographic, and socioeconomic barriers prevent senior access to health services[8,11,17,21] and contribute to the shortage of services that are offered[21,22].

Viana *et al.* (2012)[23] affirm that the predominant private assistance model that prevails in Brazil, socioeconomic inequality, unequal distribution of health professionals, a low capacity for utilization, and irregular funding of the sector, reinforce the unequal availability of dental services to the population affecting all service access.

It is necessary to reorient health assistance and to increase coverage of persons who do not receive due attention. It is up to the health administration to develop actions that will draw the needed attention to senior health in their coverage area[12,23].

It is evident in the managers’ interviews that funding difficulties and inefficient management often contribute to precarious assistance. In most of the investigated municipalities, these deficiencies limit assistance to seniors, especially institutionalized seniors, to services offered by the Basic Health Unit (BHU).

> *[…] the program of mental health is not implemented until today because of it, the Department of Health gives money to the furniture and we embrace liberal professions to implement the FHT […].* Interviewee 14.
>
> *[…] the government sends money, but we know that it does not suffice, that could not cover all the expenses, then the municipality needs to complement it. […] we need resources, the municipality alone cannot work out in practice […].* Interviewee 15.

To managers, the specific actions directed toward institutionalized seniors are insufficient to meet their complex necessities. In the case of inadequate support, seniors are attended by the Family Health Strategy (FHS) if the LSI is in the BHU coverage area. If not, the senior will not be covered by the PHC in order to receive preventative care, to address grievances, and to improve health.

Municipalities are responsible for managing, controlling, planning, and executing most health services. However, due to the difficulties of guaranteeing universal, equal, and integrated attention, managers face barriers to effectively offer health services.

Examples of impediments include unsatisfactory funding, insufficiently trained integral health teams, lack of service integrated nets, problems concerning hired and assembled services, low political and institutional sustainability, retaining staff, lack of team commitment and infrastructure, insufficiently trained PHC technicians, lack of materials and equipment, access, reception, and humanization problems[3,24].

The subjects’ interviews corroborate the literature:

> *[…] the greatest problem is the difficulty of locomotion of the seniors towards the OSC, and parents do not assist*

> *them […].* Interviewee 15.
>
> *[…] we still have a great difficulty, we have only a geriatrician in our town and no qualified health professional. Furthermore, we are qualified to treat hypertension and diabetes, but the seniors' claims go well beyond it, like prevention and life quality. […].* Interviewee 6.

In view of what has been presented, it is notable that there is a great need to adapt the health system to the growing demand for care for the seniors and that there are organizational, access, and financial barriers that need to be overcome in order to the institutionalized elderly be treated with a rightful health care service of quality.

Second axis: projects, services, and actions in oral health

Class 2, "Prevention of Oral Diseases and Specialized Actions in Oral Health", draws attention to a lack of oral care assistance to the senior population. Indeed, the interviewees confirmed that there is no specific care for a senior and that they are included in diabetes and/or hypertension care group, but senior oral care is only available if they decide to seek assistance at a health care center.

Oral care services are still underused by seniors despite accumulated demand and a high prevalence of tooth loss[3,17]. Institutionalized seniors who are segregated in an LSI are even less likely to be assisted by oral health professionals to evaluate and treat their oral health problems[25].

The need for health attention increases with aging, while the need for oral care occurs when an ache or discomfort is manifested[14,17,25]. A study reported that seniors around the world do not receive adequate oral care for their needs because public authorities ignore this health calamity[17].

Thus, municipal departments of health need to measure the access of the senior population, especially institutionalized seniors, to oral services in the Single Health System (SHS). It is necessary to utilize the SHS Ambulatory Information System to inform public managers about the most required dental services while preventing the loss of resources and reducing unnecessary expenses[23].

In Class 4, "Services and Actions Offered in Oral Health", the managers reported that the services performed by oral health professionals included surgical procedures, exodontia, and rehabilitations. On the other hand, some LSI promote preventative oral health activities with the aid of portable devices.

Yao and MacEntee (2014)[21] observed that in Canada many LSIs do not possess sufficient space for a dental chair and its respective equipment, and this lack of infrastructure affects the oral care of the institutionalized residents. Resident access to oral assistance depends upon other factors, including culture and institution resources. In the USA, one study reported that while federal regulations oversee the oral services provided to seniors in LSIs, a lack of dental documentation for each senior made it difficult to comply with federal regulations and provide routine oral health evaluations[21].

Attention to institutionalized seniors' oral health is similar in several countries, including Brazil, Canada, and Poland. Gaszynska et al. (2014)[25] consider that these countries face difficulties in providing adequate oral health care to this population.

In Class 5, "Future Projects for the Assistance to the Senior", the managers stress that it is necessary training of health professionals that attend to this population.

> *[…] we think of capacitation because we need to prepare the professionals, we need more discussions on this matter with different instances. It is necessary to call this discussion inside the service with the participation of advisory boards, as well as to develop new practices involving society, to think broadly […].* Interviewee 21.

FHS implementation contributes to diminished health iniquities and enlarges access to PHC[23]. However, barriers, including low interaction among the FHS teams, lack integration between FHS, and other complexities, make it difficult to access these basic health services.

Koch Filho et al. (2011)[18] notes that demand from seniors for oral care services stands in opposition to the relatively few professionals who are able to attend to them. It is apparent that more trained professionals are required.

Perspective of Oral Health Professionals

First axis: working process and access to attention

Class 1, "Seniors' Access to Health Services", notes that although seniors' access to oral services is easier than in the past, the number of Community Health Agents (CHA) is still insufficient to attend to all the residents of the region included in the FHS; it was also recognized that oral services are separated from other health services offered by the SHS.

> *[…] the area is too large and has few CHA to such a big population […].* – Interviewee 6.
> *[…] there is no integration, it is a complaint of the town. At the municipal health department it is obvious that oral service is separated and its personal is too reserved, discrete […].* Interviewee 7.

It is also noticed the difficulty in integrating dentistry into overall health care. Inequality in access is one of the main problems that demand a solution so that the SHS may function efficiently and effectively in compliance with the established principles and norms.

Access is a complex concept and refers to the guarantee of entering the health system without physical, socioeconomic, or other barriers[11,26]. A health professional who effectively guides a user makes it easier for him or her to access the system, but managers may manipulate the system since they regulate medical consultation scheduling (which may take up to 90 days) to promote organizational barriers[22].

Another noted barrier to access was the amount of time it takes an individual to physically reach health services. In urban centers, the generally long distance between the individual and health services is exacerbated by an overwhelmed

public transportation system[22].

Concerning the dental attendance and service accessibility of institutionalized elderly, a systematic review[3] verified that among seven studies 20% to 75.3% of residents had a dental visit within the past 12 months. Furthermore, more than 90% of the residents did not attend dental services more than once per year, attending only due to pain or discomfort.

Decentralization of appointment cards for OSC, provided by health centers, implementation of a daily waiting list to replace patients who do not appear for appointments, adequacy of the established workload of professionals with hourly production goals and scheduled consultations are strategies that assure better health service productivity while also diminishing access barriers.

Class 2, "Permanent Education for Health Care of the Institutionalized Senior", was the only class that was exclusively senior-oriented.

Health Permanent Education (HPE) objective is to improve services and education and continuing development of health professionals as well as the health institutions. These changes would ideally raise the quality of the management of health policies and systems, provide a welcomed humanization, and expand the clinical presence[24,27]. The existence of a systematic program for continuing education for health professionals, however, remains unrealized. Nevertheless, our interviews revealed the existence of isolated, fragmented, and single educational activities for these professionals.

> *[…] the professional responsible for the seniors' oral care needs capacitation, some of them need sensibility to develop better their actions, they could make data collection, epidemiological exams […].* Interviewee 2.

The fragment above reveals that oral health professionals know the importance of both continuing education and epidemiology to correctly diagnose the health condition of institutionalized seniors. A lack of education restrains knowledge, and, consequently, the service(s) offered to users prove(s) to be limited.

HPE requires a wide and constant structure and must be considered a strategy to gradually change the organization of work, the quality of health care management and practices. Furthermore, it enables a process of self-analysis in order to promote growth within the services[27,28].

Second axis: attention to senior's health

Class 3, "Organization of the Oral Health Services", is similar to Class 5 for the managers. Both classes highlight increased access to health service scheduling and primary care for expectant mothers, seniors, and children up to 14 years old. The implementation of HPE and reorganization of primary care would improve patient entry into health units and offer quality service and robust problem-solving characteristics regardless of the numerous circumstantial patient difficulties.

The introduction of the OHT in the FHT and the National Program for Oral Health aimed to eliminate the traditional

assistance model directed to primary groups. The purpose of this change was to extend to the entire population access to oral services. Hypothetically, this new organization should benefit low-income adults and seniors while also diminishing the demand for oral care and preventing premature tooth loss. It was noted, however, that the manner in which assistance to seniors is implemented will include groups of non-senior individuals. It was reported that there was no specific chronogram with regard to senior persons in the BHU.

The PHC admits the reasoning of the organization of HAN and shares the responsiveness of the SHS, commitment to improved access, quality and costs, attention to health promotion, as well as the treatment and rehabilitation of diseases through the use of multi-professional teams. To increase the optimization of the service provision, it is important that the attitudes and strategies utilized by health services will ensure universal and impartial access of persons to these services. It is also important to appropriately gauge which ailments will require treatment[12,20,29].

The organization of health services is linked to management capacity and requires a plan, implementation, and evaluation to work effectively. To develop an effective system, it is necessary to continually identify fluxes in assistance for various populations. A robust structure and adequate attention, associated and developed together, will generate continuity and guarantee assistance integrity, simplify access to health services, and produce a positive impact on the quality of life[12,29].

FINAL CONSIDERATIONS

The interviews revealed lack of empowerment for professionals, users' high demand for health services, lack of programs for LSI seniors, insufficient interdisciplinary cooperation, lack of transportability to provide seniors physical access to a BHU, and of epidemiological surveys about institutionalized seniors.

This paper highlights a lack of practical applications for senior-oriented public policies, the scarcity of these policies focused on the local reality of the municipalities, besides the lack of incentives (such as financial) and capacity to attend this group. The participants recognized these deficiencies and they realize that the issues must be addressed.

The qualitative approach of the study reveals that the difficulties for institutionalized senior access to oral health care are consequences of several barriers. These barriers are related to professionals, the service structure, the work process, and managers. The difficulties identified in this paper will require the health system to develop strategies to improve health policies in practice. Understanding the perspective of health managers and primary care, oral health professionals are a critical component that will facilitate access to better oral services.

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