

Trends in Geriodontics Publication: a Specialty Emerging in Brazil

REVIEW

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Abstract

The population of Brazil and the world is aging. The great challenge is to grow old by maintaining quality of life with health, including oral health. The objective of this study was to identify the recurrent themes in Geriodontics, through a bibliometric survey, using the database of Latin American and Caribbean Literature in Health Sciences (LILACS), conducted in 2016. Geriodontics, as a relatively new specialty, presents major challenges related to the elderly population (oral health, prostheses, periodontics, for example). In view of a historical context of aging and increased elderly population, there is a concern to deepen the studies in relation to the subject. Knowing the problems allows offering a better service with quality and adequate training of the professional.

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Keywords

Bibliometry; Geriodontics;
Geriatric Dentistry; Elderly
Person; Oral Health.

Introduction

The Brazilian population has undergone a process of accelerated and irreversible aging [1], in which the life expectancy is over 65 years. According to the Brazilian Institute of Geography and Statistics (IBGE), by 2060, the number of elderly people should quadruple, and the population in that age group should increase from 14.9 million (7.4% of the total) in 2013, to 58.4 million (26.7% of the total) in 2060 [2].

According to data on aging in Brazil [3], the number of children up to four years old in the country declined by approximately three million between 2000 and 2011, and, with that decrease in the young

population, the population aged 60 years old or more increased. According to the World Health Organization (2005), between 1970 and 2025, the population over 60 years old shall increase by 223%, reaching, by 2025, 1.2 billion people with more than 60 years old. [4]

Aging is a great cultural triumph won by a population in its process of humanization and there were several determinants to improve quality of life and health, such as: the advancement of health research with access to preventive and curative medical services, the advancement of medical technologies, basic sanitation, increased schooling and income, all those aspects have contributed to the progressive increase in the number of elderly people. [5, 6]

The growth of the elderly population evidences the emergence of new needs for autonomy, mobility, access to information, safety services and preventive health, which will directly influence the quality of life and health of the elderly. Within that reality, the oral health status of the elderly is an indispensable and integral part of the general health of the individuals, being necessary its maintenance and prevention, since, once compromised, it can affect the nutritional level, the physical and mental well-being, and diminish the pleasure of an active social life. [7]

In 2001, Geriodontics was recognized as a new dental specialty, approved at the II National Assembly of Dental Specialties (ANEO). It was defined as the specialty that focuses on the study of aging phenomena that also have repercussions on the mouth and its associated structures, as well as health promotion, diagnosis, prevention and treatment of oral diseases and the stomatognathic system of the elderly. [8] There are several synonyms in the national literature for the word Geriodontics, such as: Geriatric Dentistry, Gerontology, Geriodontics, Odontogerontology [9].

Aging and maintaining the quality of life, with general and oral health, will be the great challenges to be achieved in this century. Treating the elderly will represent the maintenance and improvement

of the quality of life of those people and a great learning for aging. Thus, the objective of the present study was to identify the recurrent themes in the publication of Geriatric Dentistry in Brazil from 2000 to 2015 and to evaluate the development of publications in Geriodontics, after becoming a specialty in those 14 years.

Methods

This was a descriptive and exploratory study, from a quantitative point of view, characterizing as a bibliometric survey, carried out in September 2016, by analyzing the abstracts of articles available in the Latin American and Caribbean Literature in Health Sciences (LILACS) of the Virtual Health Library (VHL), available online, published between 2000 and 2015, using the key words: "geriodontics" and "geriatric dentistry".

The exclusion criteria were foreign language texts, theses, letters, and chapters of books. The inclusion criteria were texts in Portuguese, abstracts and full articles on the theme.

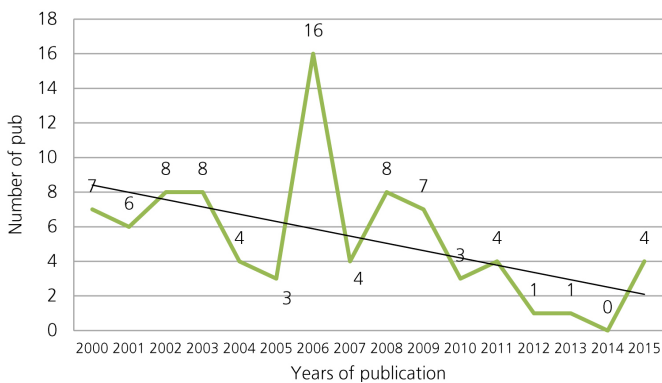
Based on the reading of the selected abstracts and articles, a database containing the following information was generated: year of publication, journal, main theme, article modality, participant group, data collection instrument, technique and collection of data analysis and mode of analysis, which were arranged in an Excel® worksheet, for simple descriptive and statistical analysis of the obtained data.

Results

There was collection of 166 articles within the pre-established parameters, and, after applying inclusion and exclusion criteria, a sample of 84 articles was analyzed. **Figure 1** shows the distribution of the number of articles per year of publication.

Table 1 shows the distribution of the most published journals on the subject, from 2000 to 2015.

Figure 1: Distribution of the number of articles per year of publication (2000-2015).



Source: Research data, 2016.

Table 1. Distribution of articles in journals that published on the topic (2000-2015).

| Journal | N | % |
|--|-----------|------------|
| Odontologia Clínica Científica | 11 | 12 |
| Revista Brasileira de Odontologia | 10 | 11 |
| Revista Odonto Ciência | 7 | 8 |
| JBG J. Bras. Odontologia | 6 | 7 |
| Revista da Faculdade de Odontologia de Porto Alegre | 6 | 7 |
| Revista Paulista de Odontologia | 5 | 6 |
| RGO Porto Alegre | 3 | 3 |
| Others (2 of each) JBC - Jornal Brasileiro Clínica Odontológica Integrada; Perionews; Revista Associação Paulista Cirurgião Dentista; Revista Brasileira Ciências da Saúde; Revista Odontologia Universidade Cidade São Paulo; Salusvita. | 12 | 13 |
| Others (1 of each): Arch. oral res.; Arquivo Odontologia; Caderno Saúde Pública; Ciência Odontologia Brasileira; Full Dent Sci; ImplantNews; Odonto (São Bernardo do Campo); Online Brazil Journal Nurse; Periodontia; Pesquisa Brasileira Odontopediatria Clínica Integrada; Pesquisa Odontologia Brasileira; Rev. Flum. Odontol.; Revista ABO Nacional; Revista Brasileira de Geriatria e Gerontologia; Revista Brasileira de Patologia Oral; Revista Brasileira de Epidemiologia; Revista ciência médica (Campinas); Revista da Faculdade de Odontologia Universidade Passo Fundo; Revista Dental Press Ortodontia e Ortopedia facial; Revista Kairós; Revista odontologia UNESP; Revista RENE; Revista Saúde Pública; RPG - Revista Pós-Graduação. | 24 | 33 |
| Total | 84 | 100 |

Source: Research data, 2016.

Table 2 shows the distribution of the main theme of the articles published in the study period.

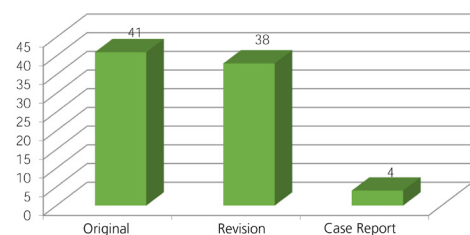
Figure 2 shows the distribution of the modality of the study articles.

Table 2. Distribution of the main theme in the articles (2000-2015).

| Main theme | N | % |
|--|-----------|------------|
| Oral health | 31 | 37 |
| Prosthesis | 9 | 11 |
| Periodontics | 7 | 8 |
| College education | 7 | 8 |
| Psychosocial aspects | 4 | 5 |
| Geriatrics | 4 | 5 |
| Health care | 3 | 4 |
| Nutrition | 3 | 4 |
| Home dentistry | 2 | 2 |
| Traumatology | 2 | 2 |
| Others (1 of each): Psychoanalytic approach; Accessibility; Alzheimer; Self-esteem; Evaluation of research programs and instruments; Pharmacology; Clinical record; Dental implant; Orthodontics; Pathologies; Protocol service; Social Security | 12 | 14 |
| Total | 84 | 100 |

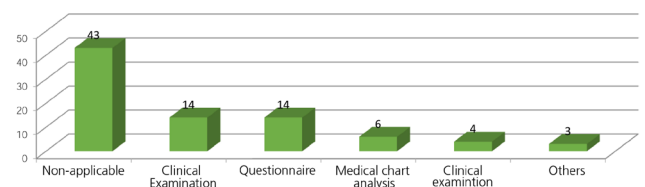
Source: Research data, 2016.

Figure 2: Distribution of the article modality (2000-2015).



Source: Research data, 2016.

Figure 3: Distribution of the instrument and data collection technique of the studied articles (2000-2015).

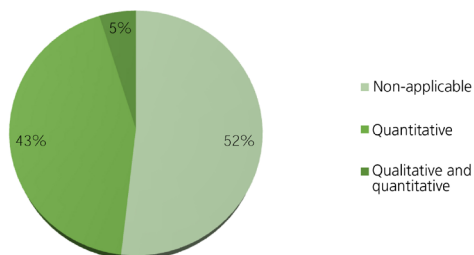


Source: Research data, 2016.

Figure 3 shows the distribution of the instrument and data collection technique of the published articles.

Figure 4 shows the distribution of the analysis mode of the articles published in the study period.

Figure 4: Distribution of the analysis mode of the articles (2000-2015).



Source: Research data, 2016.

Discussion

Population aging is a worldwide phenomenon. In the developed countries, that process occurred slowly, allowing a gradual adaptation to the new changes of reality, unlike what happened in developing countries, where the increase in the number of elderly people directly affected health services. [6]

The United Nations (UN) is a key institution in the process of formulating policies and actions associated with the elderly person. [6] In order to discuss specifically the issues regarding the elderly population, since 1982, the UN has placed on its agenda World Assemblies on Aging to discuss and propose public policies and social programs focused on the quality of life of the elderly, awakening, in various countries, the need to meet the emerging conveniences of that group. [6]

In Brazil, the implementation of the process to develop an effective public policy focused on the elderly occurred over the years. The Brazilian Constitution of 1988 [10] brought the possibility of effective participation of society in the development of public policies, expanding the views of the elderly person to new perspectives.

In 1994, a National Elderly Policy was established [11], which guarantees social rights to the elderly, creating conditions to promote their autonomy, integration and participation in society, reaffirming their right to health in the different levels of care of the Unified Health System (SUS) [12], whose principles are: universality, equity and integrality of care. In the same year, the Ministry of Health implemented the Family Health Program (FHP), now known as the "Family Health Strategy", in which health units have interdisciplinary health teams that work on population in the various phases of their life cycle, always focusing on their family and social context.

In 2003, the Elderly Statute [13] was approved, which ratifies the fundamental rights of the elderly and punishes those who violate them, giving the elderly a higher quality of life. The World Health Organization (WHO), in 2005, proposed the Active Aging Policy aiming at increasing the expectation and quality of life for all people who are aging, maintaining autonomy and independence, allowing them to continue working according to their abilities, as they grow older.

Considering that historical context, the most relevant publications related to Gerontology and Geriodontics were from 2000 (considered the beginning of the period under study), with seven publications (25%). It presented a growth until 2006, reaching a peak, with 16 publications (57%); the growing number of publications seems to directly relate to the historical context, in which several actions stand out, focusing on the elderly person: in Brazil, the regulation of the Elderly Statute (2003), culminating with the Active Aging Policy in 2005.

However, from 2007 to 2014, the publications declined, with no publication related to the theme in 2014. In 2015, the final cut of the research, there were five publications (18%) representing a resumption of new researches. Geriodontics, as an official specialty in 2001, is emerging in Brazil, with tendencies to increase publications.

The most outstanding journals regarding the number of publications were *Odontologia Clínica Científica* (Clinical Scientific Dentistry) [14], with 13%, which is the *Revista Nacional do Conselho de Odontologia de Pernambuco* (National Journal of the Dentistry Council of Pernambuco), *qualis* B2, whose mission is to publish relevant papers for dental counseling, science and practice, aiming at promoting and exchanging knowledge among health professionals. The *Revista Brasileira de Odontologia* (Brazilian Journal of Dentistry) [15], with 12%, is a biannual publication, edited by the *Associação Brasileira de Odontologia Seção Rio de Janeiro* (Brazilian Association of Dentistry from Rio de Janeiro) and intends to publish unprecedented scientific research articles, reports of clinical cases, techniques and upgrade articles, to the dental class, with any *qualis* B3. The journals with two publications were grouped, totaling 12 (13%) and those with only one publication were also grouped, totalling 24 journals, reaching a percentage of 33%, as shown in **Table 1**. From 2000 to 2015, in view of legislative innovations, the number of publications in the areas of Gerontology and Geriodontics increased, even before becoming official in 2001.

Regarding the relevant published issues, in the area of health care to the elderly person, part of the Geriodontics, the topic of Oral Health prevailed, with 31 articles, making up 37%, followed by prosthesis, with nine (11%) articles, and periodontics, with seven (8%) articles. Therefore, the oral health of the elderly person has been relevant in those 16 years studied, which would represent approximately one publication in each magazine per year.

The main themes that present only one publication were grouped, totaling 12 articles, reaching a percentage of 14% (**Table 2**). Comparing the outstanding journals: *Odontologia Clínica Científica* presented three publications (50%), two on prostheses (33%) and one on periodontics (17%); *Revista Brasileira de Odontologia*, in the same sequence, pre-

sented four publications (67%), two on prostheses (33%) and no publication on periodontics. There was a distribution of articles in other journals and themes according to **Table 1** and **2**, respectively.

The publications of articles in scientific journals are sources of research for students and professors in the process to search for and acquire knowledge. According to the Brazilian Association of Technical Norms [16], the articles are classified into two types: original and revision. Original articles present original themes or approaches (e.g., research experience reports, case study). Review articles analyze and discuss works already published, bibliographical reviews, intending to synthesize or systematize information, in order to make them more precise and compact in the exposition of their information.

According to the survey, with respect to the modality of the article, original articles (54%) prevailed, followed by revision (46%). The category of original articles includes the clinical case report, which corresponds to 5%. The predominant research group consisted of elderly people. That sovereignty of publications in original articles evidences researches in the area of the elderly person and contributes to elaborate actions in that age group.

From the analysis of original articles, the most common data collection techniques were: clinical examination (14%), questionnaire (14%), medical chart analysis (6%), clinical examination and medical chart analysis (4%), others (3%), and adopting a *non-applicable* criterion (43%) to review articles. The data collected from the original researched articles interrelate to the oral health, prostheses and periodontics theme.

The researcher analyzes quantitatively the obtained data, using statistical methods to analyze their results, or qualitatively, through the inductive method, seeking a relationship between the real world and the subject. Regarding the results obtained in the researches, quantitative articles (43%) prevailed, and only a small percentage presented a qualitative and quantitative research (5%); in rela-

tion to literature review and clinical case reports, it is a non-applicable analysis (52%). In the analysis mode, there is a direct intrinsic relationship among oral health outcomes, clinical examination, questionnaire and quantitative articles.

Conclusions

Oral health is an integral part of the health of the elderly person, and, along with Geriodontics, it provides a maintenance of a good quality of life. It bases the pyramid for the health of the elderly person, through which the chewing takes place and the digestive process begins, directly influencing the nutritional condition and, consequently, the quality of life of the elderly person.

The increase in the elderly population affects health services. Knowing the problems allows offering a better service with quality and adequate qualification of the Geriodontics professional, focusing on the preservation and maintenance of oral health.

Geriodontics is a relatively new specialty, and it has many issues to be explored, but, even being new, it is fully emerging. Faced with the innovations of the laws and the awareness of the Brazilian population regarding the rights and duties of elderly people, the trends of publication in Geriodontics may increase successively in Brazil, increasingly making it a specialty that may add great values.

Authors' contributions

AKMV and AZVMF have worked in the stages of preparation of the article, from conception, design, developing bank data, analysis and interpretation of data, and manuscript drafting. MLMM, MFDH and MRRA contributed in the design, development, database construction, analysis and interpretation of data and writing. CSLDP and AKFJA held orientation of the manuscript, critical review and held the approval of the final version to be published.

Conflicts of interest

The authors declare no conflict of interest.

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