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Original Research Article

Dental research on collective health at the Meeting of the Sociedade Brasileira de Pesquisa Odontológica (Brazilian Society of Dental Research): 14-year cut-off point

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Abstract

Introduction: The Annual Meeting of the Brazilian Society of Dental Research (BSDR) is among the Brazilian prominent scientific events. Since 2001, the event has a new category, so-called Dental Research on Collective Action (DRCA). **Objective:** To analyze the scientific production in the DRCA category, through abstracts published in the Annals of BSDR, from 2001 to 2015. **Material and methods:** By active online search, the abstracts published in the Annals of BSDR from the DRCA category, from 2001 to 2015, except for 2012 (n = 771) were accessed. These were then classified by an evaluator into: year of publication (14 years), subject of research (18 categories), age of the sample or living conditions (8 categories), and region of origin (5 regions). **Results:** The descriptive analysis showed an average rate in DRAC category, in the 14 years analyzed, of 0.03%. The years 2006 (n = 140), 2007 (n = 113), and 2008 (n = 129) included the largest numbers of abstracts, while lower values occurred in 2009 (n = 13) and 2014 (n = 17). Concerning to the subjects, health promotion prevailed in 24.3%, followed by oral health care (18.5%), and health surveillance (11.7%). In the studies including humans (66.3%), the greater involvement was with children (27.0%). The Southeast region prevailed in the presentation of abstracts, with a rate of 66.9%, while smaller representation occurred in the Midwest region (1.6%). **Conclusion:** The DRCA category was present in the meetings of DRCA, especially by research involving health promotion approach with meaningful participation of the Southeast region, reflecting the potential scientific development of the region.

Introduction

One of the goals of the scientific research is to improve the community live, so that the techniques resulting from the discoveries are implemented [4]. Authors indicate that the economic power of a country is related to the research capacity [17, 19].

The dentist who learns to research during academic life develop the habits of searching new knowledge diurnally [12]. According to Estrela [16], the dental research is complex. However, the scientific production growing is evident, and Brazil is one of the countries with the most scientific production worldwide [27]. The publications in Dentistry increased in the last 20 years [18], together with the progressive increasing in the financial sources for that purpose [13]. Although this increasing in publications in Dentistry, an analysis from 1947 to 2011 showed that the collective oral health issue is published in dental periodicals but not in collective health periodicals [11].

No less important in this context of "producing science" are the scientific events, among them, the meetings of the Brazilian Society of Dental Research (BSDR) are highlighted, the Brazilian division of the International Association for Dental Research (IADR), founded in 1983 (www.sbpqo.org.br). With the annual events, BSDR gathers the researchers of all country to share they experiences. The researches showed in BSDR are indicators of the profile of the Brazilian dental research [14].

During BSDR meetings, the researches are divided into categories, with the following classification: teaching researchers (TR), project of dental research on collective action (DRCA), Hatton, Colgate Award for preventive dentistry, Joseph Lister Award, oral presentation, scientific forum (SF), beginner, aspirant, and effective poster.

Therefore, this study aimed to analyze, during a period of 14 years, the distribution of the researches in the DRCA category in relation to the searched subject, country of origin, and age range or life conditions of the studied subjects.

Material and methods

This was a retrospective observational research that analyzed the studies of the DRCA category from 2001 to 2015, except for 2012, in the abstracts of the BSDR Annals available online (www.sbpqo.org.br). The abstracts were read and classified according to the modified classification proposed by Narvai and Almeida [21], into: year, subject, country region, and age range or life condition of the studied individuals. The subjects included:

1) fluoride – including fluoride therapy, heterocontrol, toxicity;
2) Minimally invasive dentistry – atraumatic restorative treatment (ART), sealants;
3) systemic diseases– diabetes mellitus, cancer;
4) health promotion – health programs, social and economic determinants, prevention, education in health, food habits, drug addiction, behavior habits, motivation;
5) Endodontics – endodontic treatment, traumatism;
6) dental caries – biofilm control, microbiology, diagnosis, epidemiology;
7) patients with special needs;
8) technology of information – systems of information on health; teledentistry;
9) health surveillance – analysis of the health situation of the population, surveillance and worsening of the non-communicable diseases; surveillance of the health situation of the worker;
10) oral health attention – health politics, Unified Health System, analysis of provision of services, Health Council, analysis of health practices.
11) studies on quality of life and self-perception of health;
12) research methodology – sample size, reliability tests, performance of the students of scientific initiation, validation of questionnaires, analysis of product compounds;
13) Periodontics –periodontal alterations;
14) Orthodontics and temporomandibular disorders (TMD) – bruxism, articular and orofacial pain, disturbs of tooth eruption.
15) Dental prosthesis;
16) Hospital Dentistry;
17) Stomatology;
18) Sports Dentistry.

The country regions were divided into: Southeast (SE), South (S), Midwest (CO), Northeast (NE), and North (N). The age ranges or life conditions of the individuals were: pregnancy, infant, childhood, adolescence, adulthood, elderly, and more than one classification, with different groups were studied.

After the tabulation of data, the descriptive statistical analysis was performed through SPSS software, version 21.0.

Results

A total of 771 abstracts were selected and distributed according to the year (table I). Generally, during the studied years, DRCA category was 2.1% of 35,884 abstracts. Table II displays the distribution of the studied subjects.

Table I – Distribution of the total identified abstracts and the DRCA category abstracts that filled the inclusion criteria, from 2001 to 2015 (n = 771), except for 2012

Year	Total	DRCA category n (%)
2001	1,417	29 (2.0)
2002	1,979	61 (3.1)
2003	1,905	56 (3.0)
2004	1,798	40 (2.2)
2005	1,825	74 (4.0)
2006	2,416	140 (5.8)
2007	2,542	113 (4.4)
2008	6,424	129 (2.0)
2009	2,648	17 (0.6)
2010	2,801	28 (1.0)
2011	2,546	29 (1.4)
2013	2,505	19 (0.7)
2014	2,490	13 (0.5)
2015	2,598	23 (0.9)
Total	**35,884**	**771**

Table II – Distribution of the subjects in DRCA category exhibited in the BSDR meetings from 2001 to 2015 (n = 771), except for 2012

Subject	Frequency	%
Fluoride	41	5.3
Minimally invasive dentistry	13	1.7
Systemic diseases	20	2.6
Health promotion	187	24.3
Endodontics	36	4.7
Dental caries	88	11.4
Patients with special needs	23	3.0
Technology of information	9	1.2
Health surveillance	90	11.7
Oral health attention	143	18.5
Studies on quality of life and self-perception of health	25	3.2
Research methodology	33	4.3
Periodontics	15	1.9
Orthodontics and TMD	32	4.2
Dental prosthesis	3	4
Hospitalar Dentistry	7	9
Stomatology	5	6
Sports Dentistry	1	1
Total	**771**	**100.0**

The subject "health promotion" was the most studied, followed by "oral health attention, while the specialties were not studied. Concerning to the country regions of the researches, the Southeast and South regions of the Brazil were the most productive, while the North region had the smallest rates (3.4%) (table III).

Table III – Distribution of the abstracts in the DRCA category exhibited in the BSDR meetings regarding to the country regions from 2001 to 2015 (n = 771), except for 2012

Region	Frequency	%
Southeast	516	66.9
South	123	16.0
Midwest	12	1.6
Northeast	94	12.2
North	26	3.4
Total	**771**	**100.0**

The most prevalent age range of the study samples was the childhood (27%), while the pregnancy was the least prevalent (1.8%) (table IV).

Table IV – Distribution of the abstracts in the DRCA category exhibited in the BSDR meetings regarding to the age range from 2001 to 2015 (n = 771), except for 2012

Age	Frequency	%
Pregnancy	14	1,8
Infant	19	2,5
Childhood	208	27,0
Adolescence	52	6,7
Adulthood	75	9,7
Elderly	48	6,2
Not applied	260	33,7
More than one age range	95	12,3
Total	**771**	**100,0**

Discussion

The scientific research is of great importance to obtain the knowledge and meet the population requirements [25]. This affirmation is in agreement with the Law n. 8.080 from 1990, chapter IV, that claims in the section "competence and attributions" of the Unified Health System, subsection XIX, the conduction of researches and studies in the health area [6]. This theme reappears in description of competences and abilities of the Brazilian Curricular Guidelines for the graduation in Dentistry, in which the professional should be capable of "participating in scientific investigation on the diseases and oral health and be prepared to apply the results of the researches in the health care" [5]. According to Estrela [16], the teaching of Dentistry is complex and the teaching practices should favor the dynamically learning.

Like other countries, in Brazil, the challenge is to incorporate the researches' results to the health services and system. It is necessary to invest in strategies of dissemination capable of informing to reduce the distance between the new knowledge and the use in the population' benefit [8].

The year of 2001 was the initial year because this was the year when the DRCA category was created. This fact could have contributed for the progressive increasing in the abstracts in the further years [24]. Furthermore, the Brazilian Curricular Guidelines for the graduation in Dentistry [5] and the Brazilian Oral Health Politics [7] dated from 2002.

In this present study, the research rate of the DRCA category varied in the studied years. Initially, the values were little expressive, but they increase from 2006 to 2008, which can be accounted for the Brazilian economic condition at that time. In 2006, the Brazilian economy was more favorable than today, which could have influenced the number of researches published by the meeting. These values are similar to those found by Dias *et al.*. [15] and Primo *et al.*. [23], in which the research frequency in 2006 was the highest. However, as of 2009 the research rate reduced. This reduction was also pointed out by Primo *et al.*. [23] in 2007, 2008, and 2009.

Vacanti *et al.*. [10] found values similar to those of this present study in relation to the Brazilian region, highlighting the Southeast region with a rate of 76.4%. The Brazilian southeast have a great number of educational institutions [18], agencies for supporting research, such as Foundation for Research Support of the Sao Paulo State (Fapesp), which provide scholarships and financial support [22], and held the annual meeting of BSDR. The same findings were identified by Aquino *et al.*. [1], in which from 2003 to 2007, the BSDR meeting had 6,242 abstracts from researches coming from institutions of Southeast region.

The results of this present study confirmed the predominance of basic and clinical specialty areas. Cormack and Silva Filho [14] pointed out that in the BSDR annual meeting of 1997 the dental materials and biological analyses were the most studied themes (88.3%), while a small percentage (11.7%) of the studies were on social scope. Cavalcanti *et al.*. [10] also found a greater frequency of studies on dental materials with almost 35% of 1,905 studies analyzed by the authors. The predominance of the laboratorial researches was found by Primo *et al.*. [23]. Dias *et al.*. [15], after analyzing the abstracts of the BSDR Annals, from 2001 to 2006, put the collective health in the sixth position, with an evident tendency towards increasing, which according to the authors showed the great concern on not only the biological aspects but also on the context of the individuals. Other authors highlighted that this increasing in the research in collective health occurred due to the closer relation between the educational institutional and the Unified Health System, together with the great interest in social questions [2, 3]. According to Narvai [20], the increasing in the number of publications on collective health is a reality, not a tendency.

Zanin *et al.*. [28] aimed to analyze the abstracts on "public health" for the period of ten years. They found a significant increasing in the studies on this area in the BSDR meetings from 1999 to 2009, with predominance of epidemiologic studies.

Concerning to the age range of the study individuals, the childhood was the most prevalent one. Worldwide, the age range of 12 years-old is very used because of the easy adhesion to the researches conducted in schools and preventive campaigns [26].

Conclusion

Based on the studied sample, the DRCA category is represent in the event, and the theme "health promotion" was the most researched, followed by "oral health attention". There was meaningful participation of the Southeast region, reflecting the potential scientific development of the region.

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