

Bibliometric analysis in paediatric dental journals listed in journal citation reports. Current trends



E. García¹, V. Paredes², C. Bellot², V. García², J.I. Aura¹, C. Borrell¹, M. Dioguardi³, D. Garcovich⁴, R. Aiuto⁵, L. Marqués¹

¹Faculty of Medicine and Health Sciences, Catholic University of Valencia, 46001 Valencia, Spain

²Faculty of Medicine and Dentistry, University of Valencia, Valencia, Spain

³Department of Clinical and Experimental Medicine, University of Foggia, Italy

⁴Master in Orthodontics, Universidad Europea de Valencia, Valencia, Spain

⁵Department of Biomedical, Surgical and Dental Sciences, University of Milan - Istituto Stomatologico Italiano, Milan, Italy

e-mail: laura.marques@ucv.es

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Abstract

Aim The aim of this study was to analyse articles published in paediatric dental journals included in Journal Citation Reports (JCR), to determine current trends in paediatric publishing.

Methods Articles included in paediatric dentistry journals in 2020 JCR were selected, published during the period 2008–2020. After applying inclusion criteria, author-based parameters (article title, first author's name, institution, sex and number of authors, number of affiliations, first/last author's origin and geographic origin), and article-based parameters (article type, main topic, research design) were registered for each article.

Results A total of 3,027 articles were analysed. The percentage of female authors showed an increasing positive tendency over the decade and the top producing country was the USA (16.5%). Dental surgery was the most recurrent topic (23.4%). Regarding the origin of the first author's affiliation, 51% proceeded from the paediatric dentistry departments belonging to public institutions, with a decreasing trend in non-academic/private affiliations. Positive and negative correlations exist between citation count and other variables.

Conclusions International Journal of Paediatric Dentistry, Journal of Clinical Pediatric Dentistry, European Journal of Paediatric Dentistry and Pediatric Dentistry were the four main journals in terms of production volume, USA being the most productive country. The most recurrent topic was dental surgery, and the most common design was observational studies. Study design, geographic origin of the articles, article type and main subject of the article might predict citation.

KEYWORDS Paediatric dentistry, Journal Impact Factor, Bibliometric analyses.

Introduction

Bibliometrics is the science that allows quantitative and qualitative analysis of any scientific production through literature by studying the nature and course of scientific

disciplines [Kessler 1963; Krauze et al., 1971; Ortega, 1979]. The use of bibliometric indicators is based on the fact that scientific publications are an essential result of the academic research activity of an institution or a country since science moves forward when knowledge acquires value and it is made public and disseminated [Kessler, 1963; Ortega, 1979].

Scientific publications become the final and tangible result of any research process, updating on knowledge, diagnosis and therapeutic behaviours. Thus, bibliometric indicators acquire validity as a measure of scientific activity [Kessler, 1963; Krauze et al., 1971].

Impact factor is the most used instrument to measure the repercussion that a journal obtains within the scientific community. It is used to compare journals and evaluate the relative importance of a specific journal within the same scientific field and provides the position that each publication holds with respect to the rest of publications in its area of [Moed et al., 1995; Alonso-Arroyo et al. 2005]. Clarivate, formerly Thomson Reuters®, Journal of Citations Reports® (JCR) from the Institute for Scientific Information (ISI) is the best known and most valued impact factor indicator today. It measures the importance of a journal based on the citations received by articles published and collected in the Web of Science® (WOS) [Peralta-González et al., 2015; Pérez et al., 1991-2000].

Several bibliometric studies have aimed to analyse paediatric publishing trends in different journals and over different time frames. Most of these bibliometric reviews included only the leading paediatric dentistry journals, or specific parameters such as topic, or type of study design, while others analyse the most cited articles in paediatric dentistry. They have mainly focused on either article-based parameters and design, or author-based parameters; it is not common to find studies focused on both [Ceolin et al., 2010; Feldens et al., 2013; Jafarzadeh et al., 2015; Kramer et al., 2016; Susarla et al., 2018; Vivero et al., 2017]. None of them has conducted a complete and extensive review of the four current paediatric dentistry journals included in Journal Citation Report (JCR®).

The present study sets out to perform a complete and extensive bibliometric analysis of the main paediatric dentistry journals included in Journal Citation Reports, including all issues

| JOURNAL (IF) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| International Journal of Paediatric Dentistry | 1.289 | 1.008 | 0.924 | 1.540 | 1.338 | 1.303 | 1.532 | 1.383 | 2.057 | 1.993 | 3.455 |
| European Journal of Paediatric Dentistry | 0.359 | 0.435 | 0.515 | 0.484 | 0.446 | 0.421 | 0.683 | 0.893 | 0.870 | 1.500 | 2.231 |
| Pediatric Dentistry | 1.831 | 1.022 | 0.535 | - | 1.774 | 0.800 | 1.947 | - | 3.312 | 1.594 | 1.874 |
| Journal of Clinical Pediatric Dentistry | 0.474 | 0.444 | 0.340 | 0.308 | 0.354 | 0.562 | 0.775 | 0.854 | 0.731 | 0.798 | 1.065 |

TABLE 1 Classification by year of the JCR IF value of each journal.

and all articles published in the period 2008–2020 aiming to allow readers to know what the publication tendencies have been during the last decade so they find out which topics are available to be accessed and also, to provide researchers consistent information about the evolution of lines of research so their studies can be carried out from what is already published.

Methods

The 4 journals that have been present in JCR until 2020 in the Dentistry, Oral Surgery & Medicine category, Science Edition were analysed: Pediatric Dentistry, International Journal of Paediatric Dentistry, European Journal of Paediatric Dentistry, Journal of Clinical Pediatric Dentistry. JCR® Impact Factors for each journal until 2020 are shown in Table 1.

The evolution of the Impact Factor of the 4 studied journals since 2015 to 2020, shows that the European Journal of Paediatric Dentistry is the only one having a constant and progressive growth (Fig. 1).

All issues published between 2008 and 2020 (both years included) were obtained from each journal's online website in order to avoid any confusion deriving from external databases.

Replies, letters to editors, retractions, errata, publications of congresses and scientific meetings, protocols, reviews of books, summaries of articles, articles of opinion and reflection, news, biographies, and editorials were excluded.

Two sets of parameters (author-based and article-based parameters) were registered independently for each article by two researchers.

Author-based parameters were the following.

- Title of the article.
- First and last author's sex.
- Number of authors.
- Number of affiliations (this number could be higher than that of authors because many authors have more than one affiliation).

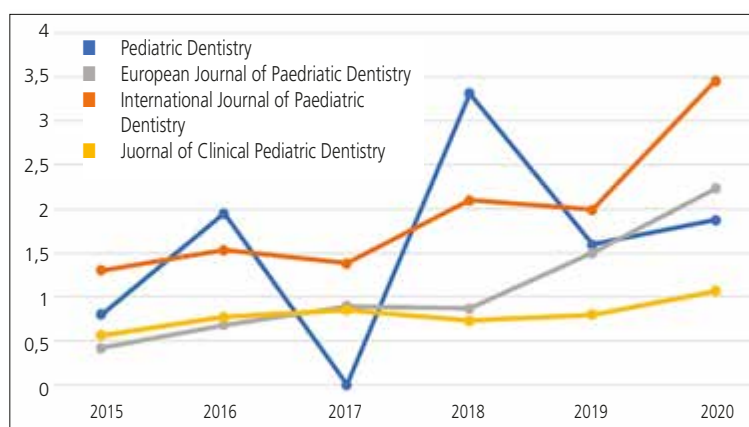


FIG. 1 Evolution of the Impact Factor in 2015-2020.

- Origin of the first author's affiliation:
 - 1) Research in public institutional academic paediatric dentistry departments;
 - 2) Research in public institutional or academic non-paediatric dentistry departments;
 - 3) Research in private practices or private research centers.
 - Geographic origin of first author's affiliation: Countries were classified into geographical areas as follows.
 - 1) North America.
 - 2) Europe.
 - 3) Asia and Australia.
 - 4) Central and South America.
 - 5) Other countries.
- Article-based parameters were the following.
- Main topic of the article (Table 2).
 - Article type:
 - 1) Research;
 - 2) Systematic review and meta-analysis;

| | TOPIC |
|----|--|
| 1 | Prevention |
| 2 | Caries prevalence and aepidemiology |
| 3 | Dental surgery |
| 4 | Dental trauma |
| 5 | Malocclusion and space management |
| 6 | Behaviour, fear, anxiety and attitude of parents |
| 7 | Sedation and general anaesthesia |
| 8 | Molar Incisor Hypomineralization |
| 9 | Early childhood caries |
| 10 | Medical oral pathology |
| 11 | Oral manifestations of systemic diseases |
| 12 | Farmacology |
| 13 | Bibliometry |
| 14 | Dental erosion |
| 15 | Dental age |
| 16 | Dental anomalies |
| 17 | Periodontics |
| 18 | Occlusion, temporomandibular joint and bruxism |
| 19 | Diagnostic techniques |
| 20 | Child abuse |
| 21 | Contamination |
| 22 | Pain |
| 23 | Urgencies and emergencies |
| 24 | Ethics and professional values |
| 25 | Others |

TABLE 2 Main topics of the articles.

- 3) Narrative review;
- 4) Other types of articles which did not fit the previous categories.
- Research design (only for research articles) based on the classification proposed by Farjo et al. in 2015 (Table 3).

Statistical analysis

Statistical analysis consisted of calculating absolute and relative frequencies for all registered variables. Mean, standard deviation, minimum, maximum and median values were calculated for continuous variables.

Cross tables were obtained to assess the associations between different variables across the whole sample and within strata defined by specific journals. Descriptive statistics was calculated using the 'Custom tables' module in the statistical software package IBM SPSS Statistics 26.0 - 2019 (Chicago, IL, USA).

Results

After reviewing the content of the issues and applying exclusion criteria, 3,027 articles were identified in issues of the selected journals published during the period 2008–2020. The overall distribution was homogeneous within the study period, being 9% per year, with a maximum production peak in 2020 (11.7%). Figure 2 represents the evolution of the articles published during the years 2008–2020. The journal with the highest number of articles published was the International Journal of Paediatric Dentistry (27,5%), followed by the Journal of Clinical Paediatric Dentistry (26,2%) and the European Journal of Paediatric Dentistry (23,2%), and last was Pediatric Dentistry (23,1%).

Author-based parameters

Regarding the sex of first authors, more than half were females (59.8%) but in contrast, more than half of the last authors were males (53.2%). Figure 3 represents the percentage of male and female both as first and last author.

When analysing the sex of the first author by year of publication, a clear trend towards an increase in the relative weight of women as first authors of articles is observed, although in recent years it has slowed down. This trend can be extrapolated to all four journals. The average number of authors per article was 4.4 ± 1.9 . An evident tendency for the number of authors to increase could be observed over the decade: the average in 2020 was 4.8 authors per article, while the average ten years before was 3.7 (Fig. 4). This increase is perceptible in all the journals included in the present study, with the International Journal of Paediatric Dentistry publishing the



FIG. 2 Distribution of the number of articles published per year of the total studied.

| | | |
|---------------|------------------|---------------------------------|
| Basic | Materials | |
| | Cell | |
| Translational | Human | |
| | Animal | |
| | Theoretical | |
| Clinical | Controlled trial | Randomised controlled trial |
| | | Non-randomised controlled trial |
| | Observational | Cohort |
| | | Case-control |
| | | Case series |
| | | Cross-sectional |

TABLE 3 Classification of types of research articles [Farjo et al., 2015].

article with the highest number of authors (19 authors in the same article) in the year 2018 [Ballantine et al., 2018].

The average number of affiliations per article was 2.7 ± 1.6 : 51,6% of articles included no more than two different affiliations and around 45–50% of the articles had a paediatric dentistry department as affiliation.

Regarding the origin of the first author's affiliation, 51% proceeded from the paediatric dentistry departments belonging to public institutions (universities, medical institutes, public research centers); 5.1% corresponded to non-academic/private centers; and 43.9% to non-paediatric dentistry departments. Similar values were found for the last-author affiliation (43.4% are from paediatric dentistry departments; 2.4% corresponded to non-academic/private centers; and 54.2% to non-paediatric dentistry departments). A decrease in non-academic/private affiliations was observed in all journals. It can also be observed how 50.1% were collaborations among local authors (all of them belonging to the same institution), 37% national (authors belonged to different institution from the same country) and only 12.9% were international collaborations.

As for the geographic origin of first authors' affiliations, the USA produced the most articles (16.5%–16.3%), followed by Brazil (14.1%–14.3%), Italy (11.6%), and India (9.5%–9.6%). The European area was identified as the main producing area (35.1%), followed by North America (17.8%) and Central and South America (17.7%) (Fig. 5).

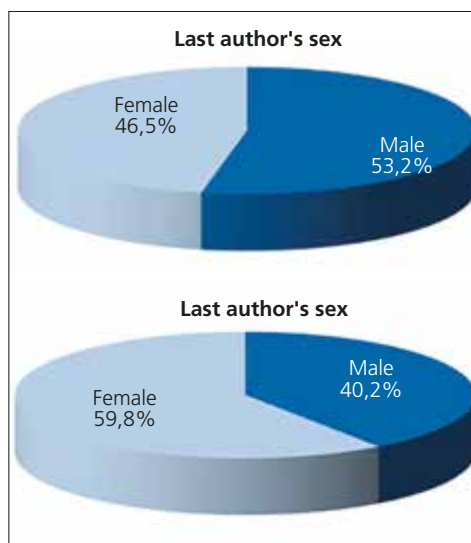


FIG. 3 Distribution by sex of first and last author.

Article-based parameters

Regarding the main topic of the articles, dental surgery was the most recurrent topic (23.4%) which included articles on pulp treatments, restorative treatments and dental materials, followed by prevention (13.2%), and topics related to oral manifestations of systemic diseases and syndromes (10.6%). Rarely published topics included Early Childhood Caries (CAT) (2.5%), and Occlusion and TMJ (2.7%) (Fig. 6). Figure 7 shows the annual trends of the different topics, highlighting how prevention increases its presence, while oral and systemic manifestations are reduced.

As for the types of articles, the most published were research articles (74.2%) and among these, the most common design was observational studies (61.1%) and subgroups of cross-sectional studies (36.9%) and case-control studies (11.9%); randomised controlled trial (11.6%) were the most common

type of study. The number of case series is clearly reduced, from 20% ten years ago to only 5% in 2020. Due to the clear predominance of the research category in all journals, the rate of research over time and by journal was also studied (Fig. 8).

Discussion

The aim of this study was to perform a bibliometric analysis of the six paediatric dentistry journals listed in Journal Citation Reports (JCR®), including all issues published during the decade 2008–2020. No other study to date has conducted a complete and extensive review of all these journals together.

Web of Science® Journal Citation Reports® (JCR), provides a systematic and objective method for evaluating the world's leading research publications. It offers a unique perspective for

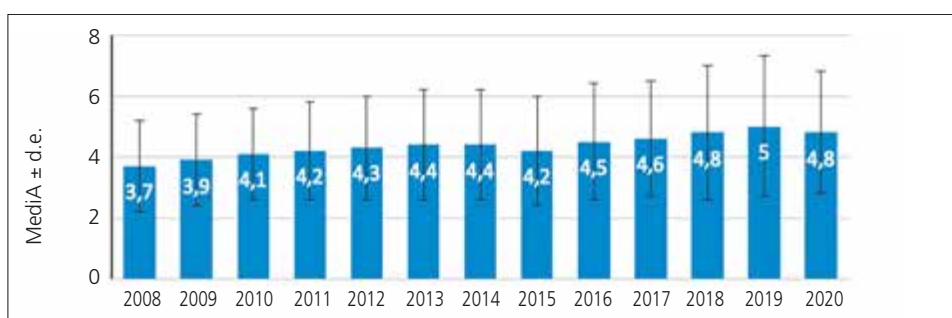


FIG. 4 Evolution of the number or authors per article.

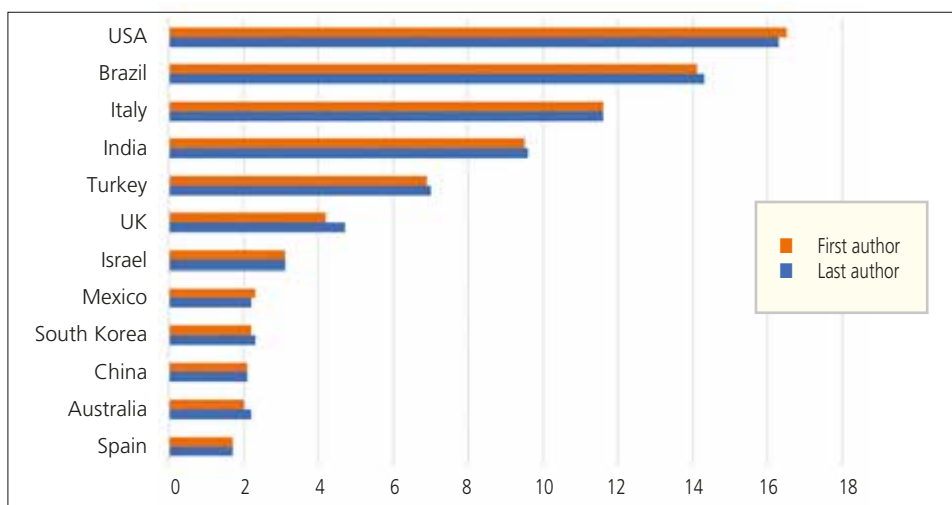


FIG.5 Country of origin of the first and last author.

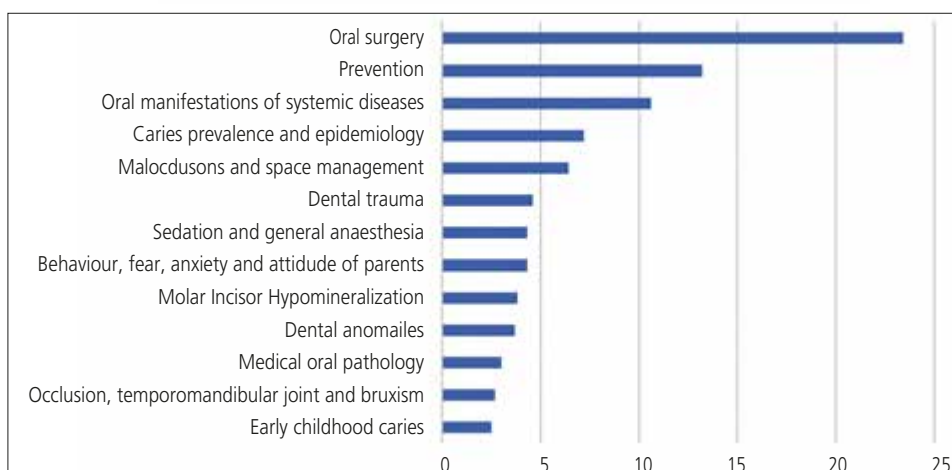
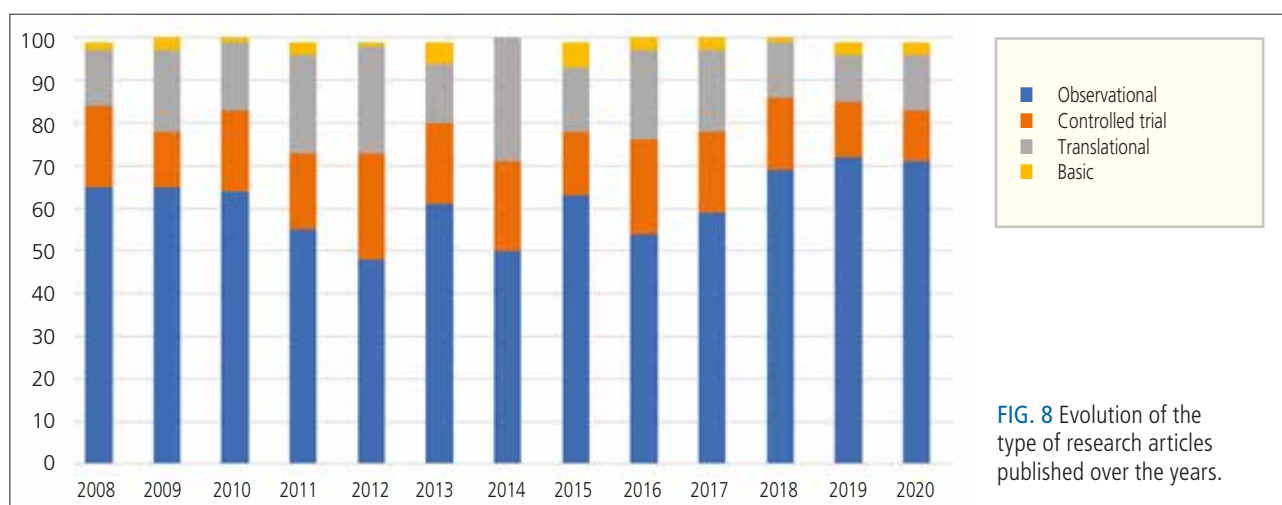
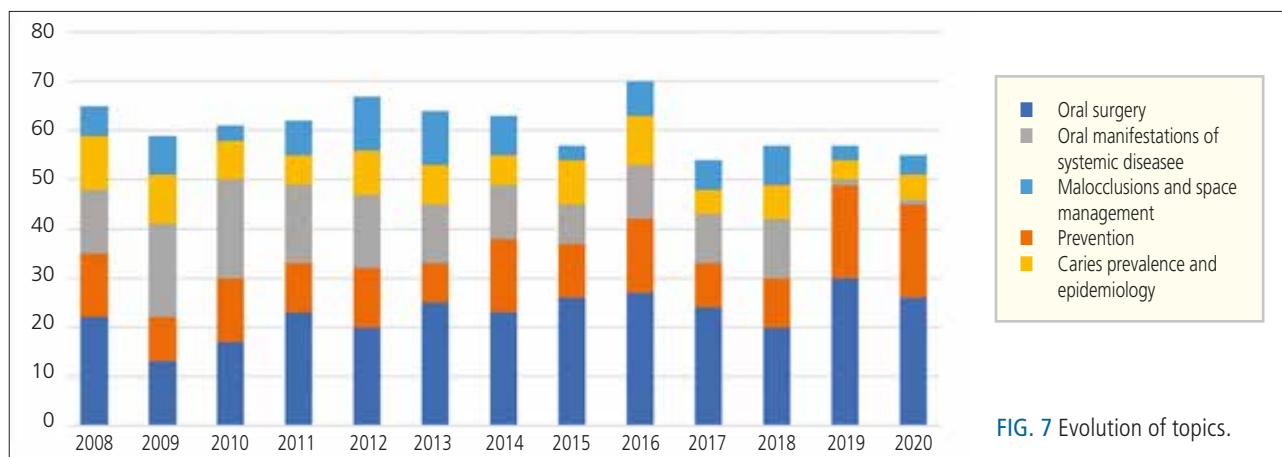


FIG. 6 Percentage of the main topics of the analysed articles.



the evaluation and comparison of publications by stockpiling and tabulating article and citation counts from every scientific specialty, social sciences, and technology [Thomson Reuters 2017]. To be able to compare journals and discover which are the most significant ones, the Journal Citation Reports displays [Thomson Reuters 2017]:

- The most frequently cited publications in every field.
- The most current publications in every specific field.
- The publications with the greatest impact in every specific field.
- Category data for comparative evaluation.
- Two available editions: JCR® Science Edition (science subjected journals) and JCR® Social Science Edition (social science subject area journals).

To better assess the impact of a journal within a given area of knowledge, different types of segmentations of JCR® list can be carried out with the aim to obtain a ranking [Orduna-Malea et al., 2017]. Quartile of publication (Q) of a specific journal which depends on the impact factor and the publication category. The calculation of the publication quartile of a journal is obtained by dividing the total number of journals in the same category by 4, thus obtaining the size of the quartile; and subsequently, all the journals in the category are ordered descending according to their impact factor and the quartiles are defined. In this way, the journals in the first quartile (Q1) are those that are in the top positions of the ranking. The rest of the quartiles (Q2, Q3 and Q4) are calculated similarly, with the journals in the fourth quartile (Q4)

being those that are in the last positions of the ranking. Since a specific journal may belong to one or several publication categories, the publication quartile may vary depending on the selected category.

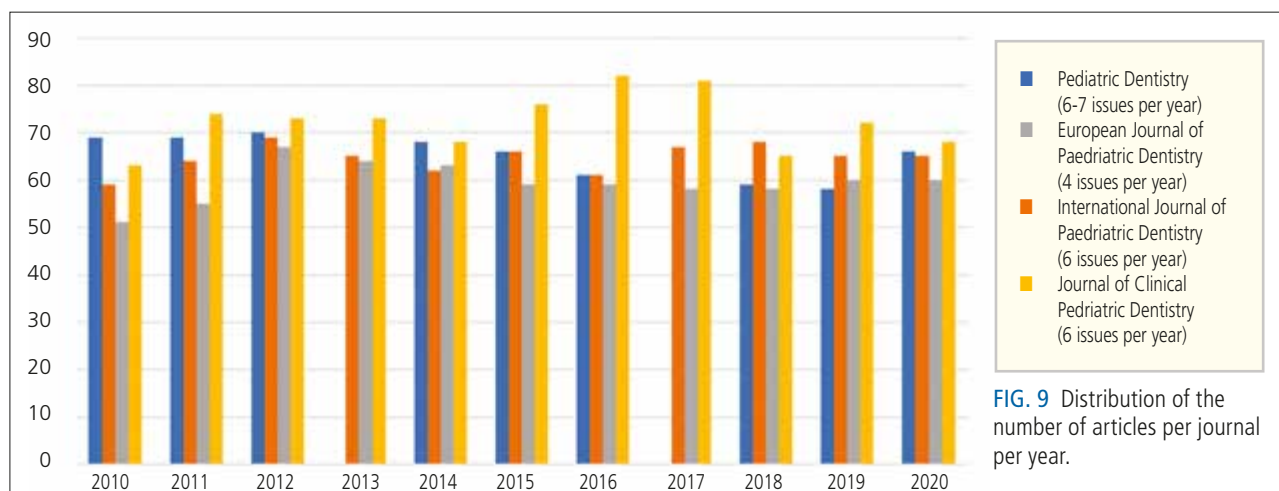
Due to the fact that the impact factor continues to be the most consolidated bibliometric indicator of scientific publications and that it has a great impact on the reputation of researchers, institutions and scientific journals, the annual publication of the JCR® list by Clarivate Analytics (formerly Thomson Reuters) is a highly anticipated event in academia. Said publication includes the updated impact factor of each journal as well as the ranking of all the journals included [Livas et al., 2017].

All the issues of the journals that were present in the JCR list were analysed. Thus, of the 4 journals studied, the International Journal of Pediatric Dentistry (Int J Peadiatr Dent) is present in JCR throughout the period studied. European Journal of Pediatric Dentistry (Eur J Paediatr Dent) and Journal of Clinical Pediatric Dentistry (JOCPD) are present in JCR from 2010 to the present. Pediatric Dentistry (Pediatr Dent) is included in JCR for the years 2008, 2010, 2011, 2012, 2014, 2015, 2016, 2019, 2020.

From the present study it can be highlighted that all 4 journals that have been indexed the longest in the JCR show an exponential increase both in their impact factor and in their quartile (Table 4). This is an indicator of the importance that paediatric dentistry is having in scientific societies since one of the characteristics of the 21st century is the changing

| Journal | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|------|------|------|------|------|------|------|------|------|------|------|
| International Journal of Paediatric Dentistry | Q3 | Q3 | Q3 | Q2 | Q2 | Q3 | Q2 | Q3 | Q2 | Q2 | Q2 |
| European Journal of Paediatric Dentistry | Q4 | Q4 | Q4 | Q4 | Q4 | Q4 | Q4 | Q4 | Q4 | Q3 | Q3 |
| Pediatric Dentistry | Q2 | Q3 | Q4 | - | Q2 | Q4 | Q2 | - | Q1 | Q3 | Q3 |
| Journal of Clinical Pediatric Dentistry | Q4 | Q4 | Q4 | Q4 | Q4 | Q4 | Q4 | Q4 | Q4 | Q4 | Q4 |

TABLE 4 Evolution of the quartiles of the journals.



makeup of health and non-health professionals involved in meeting the health needs of children and adolescents, and this will continue to evolve.

After analysing in detail the evolution of the articles published by each journal during the last 10 years, it is observed (Fig. 9) how European Journal of Pediatric Dentistry publishes the least, since it only releases 4 issues per year. However, it can also be observed that it is the 2nd journal with the highest JCR IF of the four studied, showing an upward trajectory during the last 10 years that goes from 0.359 in 2010 to 2.231 in 2020. This evolution is clearly evidenced when analysing the publication quartile, which depends on the impact factor and on the publication category as well. In addition, it has been a pioneer using the open access model.

From our results, it can also be observed how there is a majority of female first authors (59.8% compared to 40.2% of males) and that there is a clear tendency towards an increase in the relative weight of women as first authors of articles over the years. In the results of the article published by Aura et al., about bibliometrics in orthodontics, the opposite occurs, there is a majority of male first signatory authors, and, in addition, a slight general recession is shown in recent years of female authors as first signatories. This difference in the results of the sex of the first authors in both works may be due to the fact that paediatric dentistry is a specialty to which more women than men tend to dedicate themselves. On the contrary, according to our study, the sex of the last author who signed the publications turned out to be mostly male (53.2%), a fact that is probably due to the fact that the heads of the university departments continue to be mostly men. When analysing the previously published bibliometric analyses, it can be observed that the most studied topics have been dental traumatology for many years, such as the study by Andreasen et al. [2009] and Feldens et al. [2013], who carried out several bibliometric analyses to explore the profile of articles on dental traumatology between the years

2000 and 2010 published in the main journals of Paediatric Dentistry. The countries with the highest publication rates were India, followed by the USA, Brazil and Italy.

Jafarzadeh et al. [2015] analysed 64 years of publications on trauma and Wilson et al. [2005] covered 30 years studying only articles on child behaviour management.

In 2016 Kramer et al. carried out a bibliometric analysis of the articles on dental traumatology in primary dentition published between the years 2000–2014 in the journal Dental Traumatology. In 2017 Susarla et al. carried out a cross-sectional study to establish the quantitative relationship between scientific production and the academic level of full-time accredited faculty professors at universities in the United States and Canada. Also, in 2017 Vivero et al. from Complutense University of Madrid, carried out a bibliometric study of the articles published on dental traumatology during the previous 5 years. However, in the present study, during the period 2008–2020 the analysed journals showed a greater presence of articles related to dental surgery and prevention, holding the sixth and eighth place traumatology and behaviour management. We believe that this fact is due to the significant increase in new materials and clinical procedures related to minimally invasive dentistry that allow to remove less tooth structure and prevent dental erosion and caries [Marqués L et al., 2019; Aiuto R et al., 2020; Giuca MR et al., 2021]. Authors such as Ceolin et al. [2009] also observed this trend in the publication topics in the "Jornal Brasileiro de Odontopediatria e Odontologia do Bebê".

Special mention deserves the journal European Journal of Paediatric Dentistry, since it has devoted 16.9% of its publications to malocclusions and orthodontics [Giuca et al., 2020; Carli et al., 2021]. Nowadays there is an increasing interest by paediatric dentists for early orthodontic treatment since a successful collaboration between Orthodontics and Paediatric Dentistry during the stages of primary and mixed dentition is important for making an early diagnosis of dental

alterations and malocclusions, which allows less complex early treatment and a better prognosis. In fact, the number of postgraduate programmes which include both disciplines is also on the rise. New and more profoundly effective avenues of communication and interaction between the orthodontist and paediatric dentist need to be established and maintained if individual patients are to benefit from modern orthodontic and paediatric dental care.

Regarding the type of articles most published in paediatric dentistry, we can observe that 74.2% are research articles, the majority being observational studies. There is an increasing emphasis on the need for evidence-based clinical decision making in paediatrics, so attention is being placed on the availability of high-quality clinical trials [Davidoff et al., 1995; Adobes et al., 2021]. The reason for this is that access to computer-based communication networks and online-critically-appraised medical information can potentially improve clinical decision making by increasing information availability [Bader et al., 1998; Lindberg et al., 1998]. Authors such as Dhillon et al. [2014] corroborate our results.

Conclusions

The following main conclusions can be drawn from the present study.

- Two leading journals, International Journal of Paediatric Dentistry and European Journal of Paediatric Dentistry published more than half of the global production.
- There is a greater predominance of local collaborations between the authors of the publications.
- The countries with the highest number of scientific publications in paediatric dentistry are USA, Brazil and Italy.
- The most recurrent topic is dental surgery, and most articles are cross-sectional, observational, clinical research studies.

Despite the fact that prevention is the second most treated topic in the articles analysed in the present study, it is not such a relevant topic when other dental journals are taken into account. It is important to highlight the need for more research on this topic since infant oral health care has not yet become the standard of care in clinical practice. Early identification of risk indicators and implementation of oral health preventive practices at a young age can reduce or avoid caries progression. In addition, several reports have shown that preventing the onset of caries is more cost-effective compared to treating advanced caries.

It would also be interesting to extend our study to paediatric medical journals in order to analyse what kind of studies are carried out, which are the main topics studied and how much space is dedicated to dentistry.

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References

- › Adobes Martin M, Zhou Wu U, Marqués Martínez L, Gonzalez Moreno AM, Aiuto R, Garcovich D. What is trending in paediatric dentistry? An Altmetric study on paediatric dentistry journals. *Eur Arch Paediatr Dent* 2021 Apr; 22(2):291-9.
- › Aiuto R, Torchia V, De Giorgio S, Paglia L. Survey on women's awareness of the importance

- of oral hygiene during pregnancy for the health of the mother and her unborn child: Observational aepidemiological study. *Eur J Paediatr Dent* 2020 Mar;21(1):55-60.
- › Alonso-Arroyo A, Pulgarín A, Gil-Leiva, I. Estudio cuantitativo de la colaboración científica en la Universidad Politécnica de Valencia, España. *Inf Res.* 2005; 11(1): 245.
- › Andreasen JO, Lauridsen E, Daugaard-Jensen J. Dental Traumatology: An Orphan in Pediatric Dentistry? *Pediatr Dent* 2009; 31(2): 153-6.
- › Bader SA, Braude RM. "Patient informatics:" creating new partnerships in medical decision making. *Acad Med* 1998; 73:408- 11.
- › Ballantine y cols. Exploring the genomic basis of early childhood caries: a pilot study. *Int. J Paediatr. Dent* 2018; 28(2): 217-25.
- › Ceolin Poletto V, Medeiros Faraco I. Bibliometric study of articles published in a Brazilian journal of pediatric dentistry. *Braz Oral Res* 2010; 24(1): 83-8.
- › Carli E, Pasini M, Lardani L, Giuca G, Miceli M. Impact of self-ligating orthodontic brackets on dental biofilm and periodontal pathogens in adolescents. *J Biol Regul Homeost Agents* 2021 May-Jun;35(3 Suppl.1): 107-15. doi: 10.23812/21-3suppl1-13. PMID: 34289670.
- › Davidoff F, Haynes B, Sackett D, Smith R. Evidence-based medicine: a new journal to help doctors identify the information they need. *BMJ* 1995; 310:1085-6.
- › Dhillon JK, Gill NC. Contribution of Indian Pediatric Dentists to Scientific Literature During 2002-2012: a Bibliometric Analysis. *Acta Inform Med* 2014; 22(3): 199-202.
- › Fajro N, Turpin DL, Coley RY, Feng J. Characteristics and fate of orthodontic articles submitted for publication: An exploratory study of the American Journal of Orthodontics and Dentofacial Orthopedics. *Am J Orthod Dentofacial Orthop* 2015; 147:680-90.
- › Feldens CA, Kramer PF, Feldens EG. Exploring the profile of articles on traumatic dental injuries in pediatric dental journals. *Dent Traumatol* 2013; 29: 172-7.
- › Giuca MR, Pasini M, Drago S, Del Corso L, Vanni A, Carli E, Manni A. Influence of Vertical Facial Growth Pattern on Herbst Appliance Effects in Prepubertal Patients: A Retrospective Controlled Study. *Int J Dent* 2020 Jan 11;2020:1018793. doi: 10.1155/2020/1018793. PMID: 32399031; PMCID: PMC7201793.
- › Giuca MR, Carli E, Lardani L, Pasini M, Miceli M, Fambri E. Pediatric obstructive sleep apnea syndrome: emerging evidence and treatment approach. *Scientific World Journal* 2021 Apr 23;2021:5591251. doi: 10.1155/2021/5591251. PMID: 33981185; PMCID: PMC8088382.
- › Jafarzadeh H, Sarraf Shirazi A, Andersson L. The most-cited articles in dental, oral, and maxillofacial traumatology during 64 years. *Dent Traumatol* 2015; 31(5): 350-60.
- › Kessler MM. Bibliographic Coupling Between Scientific Papers. *Am Doc* 1963; 14: 10-25.
- › Kramer PF, Onetto J, Flores MT, Borges TS, Feldens CA. Traumatic Dental Injuries in the primary dentition: a 15-year bibliometric analysis of Dental Traumatology. *Dent Traumatol* 2016; 32(5): 1-6.
- › Krauze TK, Hillinger C. Citation, references and the growth of scientific literature. a model of dynamic interaction. *JASIS* 1971; 22: 332-6.
- › Lindberg DAB, Humphreys BL. Medicine and health on the Internet: the good the bad and the ugly. *JAMA* 1998; 280:1303- 4.
- › Livas Ch, Delli K. Journal self-citation rates and impact factors in dentistry, oral surgery and medicine: a 3-year bibliometric analysis. *J Evid Based Dent Pract* 2018; 18(4): 269-74.
- › Marqués Martínez L, Leyda Menéndez AM, Ribelles Llop M, Segarra Ortells C, Aiuto R, Garcovich D. Dental erosion. Etiologic factors in a sample of Valencian children and adolescents. Cross-sectional study. *Eur J Paediatr Dent* 2019 Sep;20(3):189-93.
- › Mertz E, Mouradian WE. Addressing children's oral health in the new millennium: trends in the dental workforce. *Acad Pediatr* 2009;9:433-9.
- › Moed HF, De Bruin RE, Van Leeuwen, TN. New bibliometric tools for the assessment of national research performance: Database description, overview of indicators and first applications. *Scientometrics* 1995; 33: 381.
- › Orduna-Malea E, Martín-Martín A, Delgado-López E. Google Scholar como una fuente de evaluación científica: una revisión bibliográfica sobre errores de la base de datos. *Rev Esp Doc Cient* 2017; 40(4): e185.
- › Ortega C. Utilidad de las referencias bibliográficas en la valoración del desarrollo científico. *Rev Esp Doc Cient* 1979; 2: 153-9.
- › Peralta-González MJ, Frías-Guzmán M, Gregorio-Chaviano O. Criterios, clasificaciones y tendencias de los indicadores bibliométricos en la evaluación de la ciencia. *Rev Cuba Inf Cienc Salud* 2015; 26(3): 290-309.
- › Pérez C, Estrada JM, Villar F, Rebollo MJ. Estudio bibliométrico de los artículos originales de la Revista Española de Salud Pública (1991-2000). Parte Primera: indicadores generales. *Rev Esp Salud Publica* 2002; 76(6): 659-72.
- › Susarla HK, Dhar V, Karimbux NY, Tinanoff N. Do standard bibliometric measures correlate with academic rank of full-time pediatric dentistry faculty members? *J Dent Educ* 2018; 81(4): 427-32.
- › Thomson Reuters. White paper Using Bibliometrics. A Guide to Evaluating Research Performance with Citation Data. Thomson Reuters. Journal self-citation in the journal citation reports-Science Edition.
- › Vivero Couto L, Planells del Pozo P. ¿De qué evidencia disponemos en traumatología dentaria? Estudio bibliométrico. *Odontol Pediatr* 2017; 25(3): 200-8.
- › Wilson S, Cody WE. An Analysis of Behavior Management Papers Published in the Pediatric Dental Literature. *Pediatr Dent* 2005; 27(4): 331-8.