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RESEARCH ARTICLE

Bibliometric Analysis of Three Oral and Maxillofacial Surgery Journals

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Abstract

Introduction

Bibliometric analysis is a quantitative analysis that evaluates the publications in the aspect of subject, author, citations etc. In this study, we aimed to contribute to publication profile in the field of international oral and maxillofacial surgery (OMFS). For this reason we examined the studies published during 2016 in three chief journals (Journal of Oral and Maxillofacial Surgery, International Journal of Oral and Maxillofacial Surgery, Journal of Craniomaxillofacial Surgery) of OMFS.

Material And Methods

This report was designed as an observational study. The articles, which were available at PubMed database and published by Journal of Oral and Maxillofacial Surgery, International Journal of Oral and Maxillofacial Surgery, Journal of Craniomaxillofacial Surgery between in 2016, were included into study.

Results

Total of 594 studies were examined in this study. They consisted of 450 research, 78 review, 49 case report and 17 others (unclassified). The most studied subject was deformities and cosmetic surgery with 166 studies (%27,95). While only 13 studies (%2,18) had one author, 428 studies (%72,05) had 6 authors. More than one-third of all works are from the countries USA (%13,9), Germany (%10,88) and China (%10,21). However most of the studies originated from Europe with a rate of %42,79.

Conclusion

Our study showed that deformities-cosmetic surgery and oncology-reconstructive surgery were the main topics among the articles published by three chief oral and maxillofacial surgery journals in 2016. Wide interest area of oral and maxillofacial surgery allows to perform further bibliometric studies by using different parameters.

Keywords: oral and maxillofacial surgery, bibliometric, review

Introduction

Oral and maxillofacial surgery, which is the specialty of dentistry, aims to improve the quality of life of the patients by providing the aesthetic and functional integrity of soft and hard tissue repairs of diseases, injuries and defects related to oral and maxillofacial region.

With the expansion of the scope of oral and maxillofacial surgery, the number and variety of scientific and academic studies in this field has also increased rapidly throughout the world. Especially in recent years, it has been seen that the studies conducted in recent years can be grouped under the following headings with the effect of new technological advances, patient and physician awareness and the emergence of modern life and the diseases and disorders which are newly emerging or increased in incidence:

- Anaesthesia and facial pain
- Deformities and Cosmetic Surgery
- Dental Implants
- Dentoalveolar Surgery
- Oncology and Reconstructive Surgery
- Pathology
- TMJ
- Trauma
- Others

Several statistical methods are used to compare journal and article activities in scientific platform such as bibliometric analysis.¹ Bibliometric analysis is a quantitative analysis that evaluates the publications in the aspect of subject, author, citations etc.² Thus, it emerges as an important tool that

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facilitates archiving and classification of scientific information. In this study, we aimed to contribute to publication profile in the field of international oral and maxillofacial surgery (OMFS). For this reason we examined the studies published during 2016 in three chief journals (Journal of Oral and Maxillofacial Surgery, International Journal of Oral and Maxillofacial Surgery, Journal of Craniomaxillofacial Surgery) of OMFS.

Material And Methods

This report was designed as an observational study. The articles, which were available at PubMed database and published by Journal of Oral and Maxillofacial Surgery, International Journal of Oral and Maxillofacial Surgery, Journal of Craniomaxillofacial Surgery between in 2016, were included into study. Following parameters were used for evaluation:

1. Type of studies: research, review, case report, others
2. Subject of article: all studies were gathered under 9 topics. Anaesthesia and facial pain, Deformities and Cosmetic Surgery, Dental Implants, Dentoalveolar Surgery, Oncology and Reconstructive Surgery, Pathology, TMJ, Trauma and the others.
3. Number of authors
4. Origin: Stratified based on the data regarding geographic origin of the corresponding author.

Articles published before 2016, letters to the editor, letters, meeting reports, questions were excluded from the analyses. Statistical Package for Social Sciences (SPSS) version 19.0 (IBM Corp.; Armonk, NY, USA) was used for analyzing the datas. Parameters were analyzed by using the Pearson’s chi-square test. A p-value of ≤ 0.05 was considered statistically significant.

Results

Total of 594 studies that had been published by JOMS, IJOMS and JCMFS in 2016, were examined in this study. They consisted of 450 research, 78 review, 49 case report and 17 others (unclassified). (Table 1)

The most studied subject was deformities and cosmetic surgery with 166 studies (%27,95). It was followed by oncology-reconstructive surgery, the others (unclassified), dentoalveolar surgery, TMJ, trauma, dental implants, pathology an anaesthesia-facial pain respectively. (Figure 1)

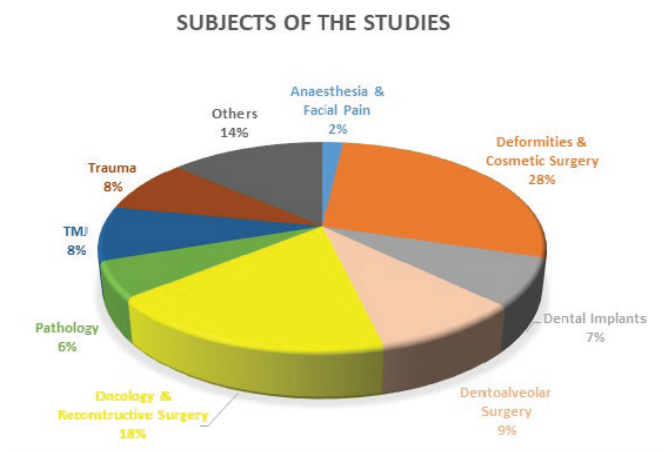


Figure 1: Distribution of subjects of the studies

Outcomes obtained from number of authors analysis is shown in Table 2. While only 13 studies (%2,18) had one author, 428 studies (%72,05) had ≤ 6 authors. It also summarizes the distribution of the number of authors according to the subjects. TMJ studies had the highest rate of ≤ 6 authors with a percentage of %90.

The origins of studies were assessed and classified according to country of corresponding author (Table 3). In addition continental distribution is shown in Figure 2. More than one-third of all works are from the countries USA (%13,9), Germany (%10,88) and China (%10,21). However most of the studies originated from Europe with a rate of %42,79.

Discussion

Bibliometric analysis can be useful in classification of scientific information as well as access to it.¹ In addition, it provides proper datas for developing research strategies.³ Consequently there is a rapidly increase in bibliometric studies in recent years. In our study, it was aimed to identify some characteristics of articles published in three OMFS journals which has the highest impacted factor. In the first study that quantifies and analyzes the most highly cited papers in OMFS, the authors identified these four high impact factor journals through the SCOPUS database; Journal of

TYPES OF STUDIES	NUMBER AND RATES
RESEARCH	n=450 (%75,76)
REVIEW	n=78 (%13,13)
CASE REPORT	n=49 (%8,25)
OTHERS	n=17 (%2,86)

Table 1: Types of papers published in JOMS, IJOMS, JCMFS in 2016

SUBJECTS	NUMBER OF AUTHORS																
	1 author	2 authors	3 authors	4 authors	5 authors	6 authors	7 authors	8 authors	9 authors	10 authors	11 authors	12 authors	13 authors	14 authors	15 authors	16 authors	63 authors
Anaesthesia & Facial Pain	-	3	1	4	-	-	1	-	1	-	1	-	-	-	-	-	-
Deformities & Cosmetic Surgery	5	13	15	35	23	31	19	8	9	4	2	-	-	-	1	-	1
Dental Implants	2	7	2	5	8	10	3	4	2	-	-	-	-	1	-	-	-
Dentoalveolar Surgery	1	5	4	11	10	11	6	1	3	1	-	1	-	-	-	-	-
Oncology & Reconstructive Surgery	-	4	6	15	14	22	13	16	5	4	3	2	1	-	-	1	-
Pathology	-	-	3	11	4	5	3	3	-	1	-	3	-	-	-	-	-
TMJ	1	6	5	9	14	10	3	1	-	-	-	-	-	-	1	-	-
Trauma	1	5	5	12	5	11	6	3	1	-	-	-	1	-	-	-	-
Others	3	5	10	16	6	14	10	8	4	1	2	1	-	-	-	-	-
Total	13	48	51	118	84	114	64	44	25	11	8	6	3	1	2	1	1

Table 2: Number of authors according to the study topics

COUNTRY	NUMBER OF STUDIES	RATES
Australia	n=11	%1,84
Austria	n=5	%0,8
Belgium	n=8	%1,34
Brazil	n=37	%6,19
Canada	n=4	%0,67
Chile	n=5	%0,8
China	n=61	%10,21
Colombia	n=3	%0,5
Denmark	n=6	%1
Egypt	n=4	%0,67
England	n=19	%3,19
Finland	n=3	%0,5
France	n=17	%2,86
Germany	n=65	%10,88
Greece	n=2	%0,33
Holland	n=35	%5,89
Hong Kong	n=2	%0,33
India	n=21	%3,53
Iran	n=16	%2,69
Israel	n=6	%1,01
Italy	n=23	%3,87
Japan	n=51	%8,54
Lithuanian	n=1	%0,16
Malaysia	n=1	%0,16
Mexico	n=1	%0,16
Nijeria	n=3	%0,5
Norway	n=2	%0,33
Poland	n=4	%0,67
Portugal	n=1	%0,16
Romania	n=1	%0,16
S. Arabia	n=3	%0,5
Scotland	n=1	%0,16
Serbia	n=3	%0,5
South Korea	n=26	%4,37
Spain	n=24	%4,04
Sweden	n=2	%1,01
Switzerland	n=7	%1,17
Taiwan	n=7	%1,17

Thailand	n=3	%0,5
Turkey	n=15	%2,52
USA	n=83	%13,9
Yemen	n=2	%0,33

Table 3: Origins of studies according to country of corresponding author

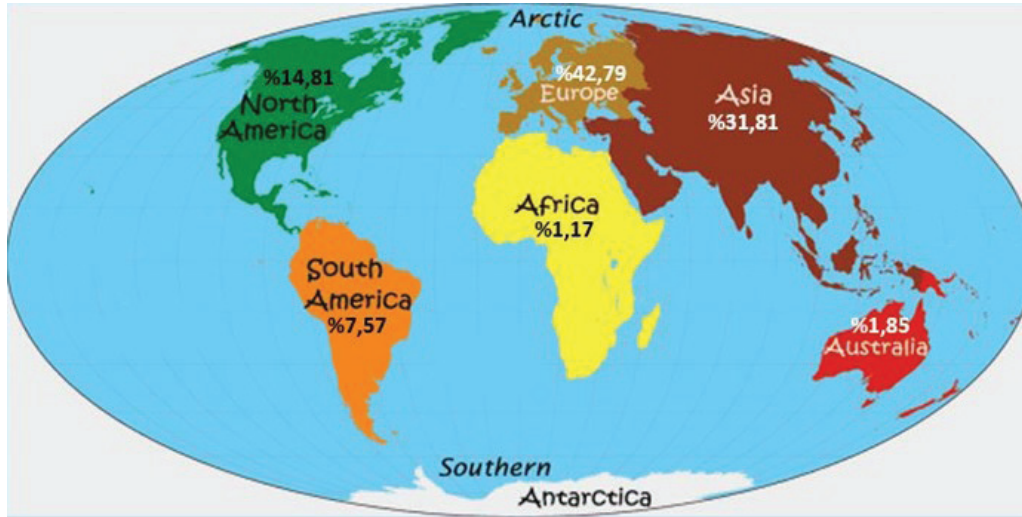


Figure 2: Continental distribution of the publications

Oral and Maxillofacial Surgery (JOMS), British Journal of Oral and Maxillofacial Surgery (BJOMS), International Journal of Oral and Maxillofacial surgery (IJOMS), Journal of Cranio-Maxillofacial Surgery (JCMS) (table 4)⁴. This study analyzed the most cited 200 papers according to their topics, authorship, article type, country of origin, level of evidence and publication years. On the contrary of our results, pathology was found as the most published category in this study. However, USA had highest publication rate (%44) similar to our study.

In 2013 Tahim et al ⁵ reviewed oral surgery-related papers published in the British Journal of Oral and Maxillofacial Surgery during 2011-2012. They examined 57 articles under 6 categories. Most of the articles were related with dentoalveolar surgery. In addition Payne et al ⁶, Sadiq et al ⁷ and Gulati et al⁸ reviewed the papers published in the British Journal of Oral and Maxillofacial Surgery in topics of trauma, orthognathic surgery and salivary glands respectively. The present study differs by its wide topic scope and number of articles.

Although research papers showed a significant rate of %75,7 in the present bibliometric analysis, case reports can offer a different perspective. In our analysis only 49 of 594 studies were case reports. Nabil and Samman⁹ evaluated all case reports and their citation datas published in four outstanding OMFS journals. Only 38 case reports (%7,2) have 5 or more citations. It showed that case reports can affect the jornal impact factor negatively.

Conclusion

Our study showed that deformities-cosmetic surgery and oncology-reconstructive surgery were the main topics among the articles published by Journal of Oral and Maxillofacial Surgery, International Journal of Oral and Maxillofacial Surgery, Journal of Craniomaxillofacial Surgery in 2016. Approximately three fourth of these studies were researches.

The results also showed that scientific activities in the field of oral and maxillofacial surgery concentrated in USA and Europe. Bibliometric analysis is an important effective tool to observe the characteristic of scientific publications and new research trends. Also it's useful for developing new scientific strategies. Wide interest area of oral and maxillofacial surgery allows to perform further bibliometric studies by using different parameters.

Source of Finance

The study needs no financial support

Conflict of Interest

The authors have no conflict of interest to declare

Authorship Contributions

Tolgahan Kara and Ahmet Altan designed the study and gathered the data. Nihat Akbulut analyzed the data. Nihat Akbulut and Tolgahan Kara wrote the majority of draft.

References

1. Fundagül Bilgiç, Eyüp Burak Küçük, Özlem Akıncı Sözer, Yazgı Ay, Abdullah Kaya, Murat Kaptaç. Analysis of Six Orthodontic Journals in Science Citation Index and Science Citation Index Expanded: A Bibliometric Analysis. *Turk J Orthod* 2018; DOI: 10.5152/TurkJOrthod.2018.17059.
2. Halenur Onat, Ahmet Altan, Zeynep GÖZTAŞ. Bibliometric Analysis Of The Journal Of Dental Faculty Of Ataturk University. *J Dent Fac Atatürk Uni Cilt:25, Sayı:1, Yıl: 2015, Sayfa: 66-70*
3. Mücahit Emet, İlker Akbaş, Abdullah Osman Koçak, Başar Cander, Şahin Aslan. The Bibliometric Qualities of Original Research Published in the Eurasian Journal of Emergency Medicine between the Years 2010-2014. *Eurasian J Emerg Med* 2016; 15: X
4. Nawaf Aslam-Pervez, Joshua E. Lubek. Most cited publications in oral and maxillofacial surgery: a bibliometric analysis. *Oral Maxillofac Surg* (2018) 22:25-37.
5. A.S. Tahima, A.M.C. Goodson, K.F.B. Paynea, P.A. Brennan. A review of oral surgery-related papers published in the British Journal of Oral and Maxillofacial Surgery during 2011 and 2012. *British Journal of Oral and Maxillofacial Surgery* 53 (2015) e3-e8.
6. Payne KF, Tahim A, Goodson AM, et al. A review of trauma and trauma-related papers published in the British Journal of Oral and Maxillofacial Surgery in 2010-2011. *Br J Oral Maxillofac Surg* 2012;50:769-73.
7. Sadiq Z, Coombes DM, Cascarini L, et al. Orthognathic surgery and related papers published in the British Journal of Oral and Maxillofacial Surgery 2008-2009. *Br J Oral Maxillofac Surg* 2010;48:364-8.
8. Gulati A, Scott J, Blythe JN, et al. Review of salivary papers published in the British Journal of Oral & Maxillofacial Surgery during 2009-2010. *Br J Oral Maxillofac Surg* 2011;49:627-9.
9. Nabil S, Samman N. The impact of case reports in oral and maxillofacial surgery. *Int J Oral Maxillofac Surg*. 2012 Jul;41(7):789-96.