Assessment of Articles from Journal of International Society of Preventive and Community Dentistry - A Bibliometric Analysis

Suganya.P[1], Prabu.D[2], Rajmohan[3], Bharathwaj. V.V[4], Sindhu.R[4], Dinesh Dhamodhar[3], M.R. Prashanthy[1]

[1]Postgraduate Student, Department of Public Health Dentistry,
SRM Dental College, Ramapuram, Chennai, India
[2]Professor and Head of the Department, Department of Public Health Dentistry,
SRM Dental College, Ramapuram, Chennai, India
[3]Reader, Department of Public Health Dentistry, SRM Dental College, Ramapuram, Chennai, India
[4]Senior Lecturer, Department of Public Health Dentistry, SRM Dental College, Ramapuram, Chennai, India

Corresponding Author: Prabu.D

ABSTRACT

Aim: The aim of this study is to analyze the bibliometrics of Journal of International Society of Preventive and Community Dentistry (JISPCD)

Materials and Methods: The bibliometric analysis was carried out for JISPCD. The overall issues from the year 2011-2015 was searched manually for the criteria which includes the study type, subject of interest, patterns of authorship, distribution of location, source of the study and the bias of publication were analyzed. The data were organized and analyzed using descriptive statistics.

Results: Totally 219 articles were retrieved of that the number of published articles were increased from the year 2014 of that most of the study are original articles (81.2%) than review articles (16.4%) and case report (2.2%). The subjects mainly focused on oral health (14.1%), followed by materials followed by materials (10.5%) and dental caries (5.9%). Majority of the authors were from India (72.1%) than foreign authors (27.8%). Most of the article gives a significant (63.4%) results than insignificant (4.5%).

Conclusion: The journal shows a great improvement in publishing articles by increasing the number of issues per year. This journal publishes more health related articles on community basis which helps the public to enlighten the knowledge in maintaining their overall health.

Keywords: Bibliometric analysis, Journal of International Society of Preventive and Community Dentistry, issues, authorship.

INTRODUCTION

The scientific journal plays a major role in providing knowledge about the research. This also provides more interaction and participation of the authors to develop their skills in research especially in developing countries. The topic of journals related to health provides more knowledge and awareness in order to maintain health and prevent diseases[1].

Schaffner in the year 1994, discussed about the importance of scientific journals by categorizing into five features such as creating a base of knowledge, interact the information, validate the research quality, rewards distribution and creating scientific communities. Therefore, maintaining the quality of journals is of utmost important [2].

The term bibliometrics obtained from the Greek and Latin word which means the mathematical application to the bibliographic study. It has been used to

analyze the authorship pattern, publication year, total number of published articles and citations, specific topics, bias of publication and geographical distribution of the articles authors. This plays a crucial role in enlightening the knowledge and awareness in the field of research [3].

Assessing the bibliometry of journals is very significant and the term bibliometrics definition was given by Singh et al in the year 2013 [4], as "the application of mathematical and statistical methods to books and other media". This provides information of author, sources and year of publication, citations and keywords. There are only few studies have been discussed about the bibliometric analysis of journals[5-10].
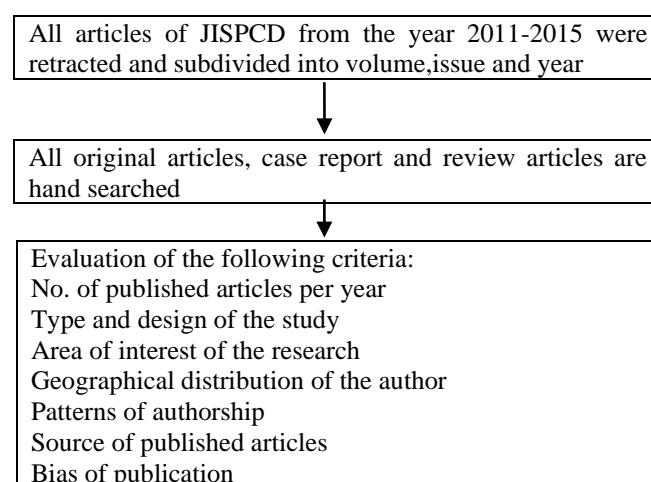
The journal of international society of preventive and community dentistry is a peer reviewed online open assess journal. It is an official publication of international society of preventive and community dentistry (JISPCD) which includes articles in all faculties of dentistry. This journal was indexed in Scopus, PubMed central, Google scholar and Web of Science and is one of the high quality journal with accepts original, review, letter to the editor and case report articles. The main objective of this journal is to promote oral health education and awareness throughout the world especially among developing countries, to create communication and to generate services of health care in worldwide [4]. Since there are only few have been discussed about the bibliometric analysis studies have been discussed about the bibliometric analysis of the JISPCD. The objective of this study is to analyze the bibliometry of JISPCD articles from the year 2011- 2015.

MATERIALS AND METHODS

A retrospective observational study was carried out for the Journal of international society of preventive and community medicine (JISPCD). All issues from the year 2011- 2015 were taken into an account and the articles retracted manually for the criteria including title, pattern of authorship, type and design of study, year of publication, changing trends, geographical distribution, area of study and the bias of publication.

The inclusion criteria include only articles from the journal of JISPCD and all issues of JISPCD from the year 2011- 2015. The exclusion criteria include journals other than JISPCD and the issues other than 2011- 2015 year.

All articles of JISPCD from the year 2011-2015 were retracted and subdivided into volume,issue and year

↓

All original articles, case report and review articles are hand searched

↓

Evaluation of the following criteria:
No. of published articles per year
Type and design of the study
Area of interest of the research
Geographical distribution of the author
Patterns of authorship
Source of published articles
Bias of publication

Statistical analysis

All parameters of the data were retrieved from JISPCD and entered into the Microsoft excel sheet [2007]. The collected data were analyzed by using descriptive statistics.

RESULTS

Totally 219 articles of JISPCD were collected which was published from the year 2011- 2015 for the analysis of bibliometrics.

Table 1: Distribution of Publication Year of Articles

Year	Number of Articles (N)	Percentage (%)
2011	13	5.9
2012	13	5.9
2013	19	8.6
2014	72	32.8
2015	102	46.5
Total	**219**	**100**

The table 1 shows that there was an increase in the number of articles from the year 2014 (32.4%) and in 2015(47%)

The table 2 shows that the percentage of articles based on oral health (14.1%) and materials (10.5%) was highest when compared to other subjects

The table 3 shows that the percentage of 6 member authorship (33.8%) was highest

Table 2: Distribution of Articles in Subjects

Subjects Focused	Number of Articles (n)	Percentage (%)
Dental caries	13	5.9
Oral health	31	14.1
Periodontal	10	4.5
Fluoride	4	1.8
Oral cancer	9	4.1
Malocclusion	2	0.9
Dental rehabilitation	2	0.9
Oral Submucous Fibrosis	4	1.8
Orthodontics	6	2.7
Materials	23	10.5
Drugs	8	3.6
Oral lesions	3	1.3
Mouthwash	10	4.5
tobacco	8	3.6
Trauma	5	2.2
Dental implants	6	2.7
prosthesis	2	0.9
oral microbes	8	3.6
avulsion	2	0.9
radiology	4	1.8
hepatitis	2	0.9
lip prints	2	0.9
others	55	25.1
Total	**219**	**100**

Table 3: Distribution of Number of Authorship

Year	No. of Authorship (n)						
	1	**2**	**3**	**4**	**5**	**6**	**>6**
2011	0	3	3	3	4	0	0
2012	0	7	2	1	2	1	0
2013	0	5	5	5	2	1	1
2014	0	7	4	19	5	36	0
2015	6	11	17	25	7	36	1
Total	**6**	**33**	**31**	**53**	**20**	**74**	**2**
Percentage (%)	**2.7**	**15.1**	**14.2**	**24.2**	**9.1**	**33.8**	**.9**

Table 4: Pattern of Authorship

Authorship Pattern	No. Of Authors (n)					Percentage (%)
	2011	**2012**	**2013**	**2014**	**2015**	
Single Authors	0	0	0	0	6	2.7
Joint Authors	13	13	19	72	96	97.2

The table 4 shows that the percentage of joint authors (97.2) was more than single authors (2.7)

Table 5: Geographical Distribution of Authors

Location	Number Of Articles (n)	Percentage (%)
India	158	72.1
Foreign	61	27.8

The table 5 shows that the percentage of Indian authors (72.1) was most common

Table 6: Type of Study

Type of study	No. of Articles (n)	Percentage (%)
Review articles	36	16.4
Original articles	178	81.2
Case report	5	2.2

The table 6 shows that the number of original articles (81.2%) was higher than review articles (16.4%) and case report (2.2%)

Table 7: Source of the Study

Source of study	No. of articles (n)	Percentage (%)
College	172	78.5
Institute	19	8.6
University	26	11.8
Private hospital	2	.9

The table 7 shows that most of the source of articles was from colleges (78.5%)

Table 8: BIAS of Publication

Bias of publication	No. of articles (n)	Percentage (%)
Significant	139	63.4
Non-significant	10	4.5

The table 8 shows that most of the studies give significant results (63.4%)

DISCUSSION

The changing trends of science based on health provide more knowledge and awareness so the health care

professionals should update themselves in the recent advancements. This can be obtained from the scientific journals which help the professionals to easily assess and provide appropriate treatment to the patients[2]. Hence, it is of utmost important to interpret the bibliometrics of scientific journals.

The quality and standard of the scientific journals reflected by obtaining more papers and issues per year, this study shows that there was an enormous increase in the issue and the number of the articles begins from the year 2014. This highlights the standard of the journal and the active participation of the editors in the publication. Table 1 discussed about the number of articles published from the year 2011-2015. Totally 219 articles were collected of that 13 articles (5.9%) published per year till 2011 and 2012, 19 articles (8.6%), whereas in the year 2014 the number of published articles arises to 72 (32.8%) and in the year 2015, the number of published articles was 102 (46.5%) this improvement in the publication number of the articles shows the quality and standard of the journal.

The area of interest of the article was discussed in the table 2, most of the articles were focused on oral health (14.1%) followed by materials (10.5%), periodontitis (4.5%), mouthwash (4.5%), dental caries (5.9%), oral cancer(4.1%),drugs (3.6%), oral microbes (3.6%), trauma/ injury (2.2%), fluoride (1.8%), oral submucous fibrosis (1.8%), radiology (1.8%), oral lesions (1.3%), malocclusion (0.9%), avulsion, rehabilitation (0.9%), hepatitis (0.9%), rehabilitation (0.9%), hepatitis (0.9%), lip prints (0.9%) and other subjects (25%).

The distribution of the authorship number was discussed in the table 3, the percentage of single member authors was 2.7%, two members authorship was 15.1%, three members authorship was 24.2%, five members authorship was 9.1%, six members authorship was 33.9% and it was 0.9% in authorship of more than six members. The pattern of authorship was discussed in table 4, the percentage of single authors and in joint authorship it was 97.2%.

The geographical distribution of the authors was discussed in table 5, the percentage of Indian authors (72.1%) was highest than the foreign authors (27.8%). The distribution of the study type was discussed in table 6, the number of original articles was highest (81.2%) followed by review articles (16.4%) and case report (2.2%).

The source of the articles was discussed in table 7, the most of the source of articles were from college (78.5%) followed by university (11.8%), institute (8.6%) and private hospital (0.9%). Table 8 reveals the bias of publication of articles from the year 2011-2015, most of the articles gives a significant results (63.4%) whereas the percentage of the insignificant articles were 4.5%.

The limitation of this study was only articles from the year 2011-2015 were selected, focusing on the recent issues will give more appropriate results.

CONCLUSION

The journal shows a great improvement in number of publication of papers within a shorter period of time. This journal publishes 219 articles from the year 2011-2012. The number of publications increased from the year 2014. The six member authorship was most common among these articles and most of them are Indian authors. Moreover, most of the articles give a significant result this shows the journal quality in selecting a paper.

REFERENCES

1. Momen, Hooman. "The role of journals in enhancing health research in developing countries." Bulletin of the World Health Organization.2004; 82: 163-163.

2. Jain, Swati, Basavaraj Patthi, Ashish Singla, Shilpi Singh, Khushboo Singh, and Hansa Kundu. "Bibliometric analysis of two journals of community dentistry." Journal of Indian Association of Public Health Dentistry.2014; 12(4): 256.

3. Thanuskodi, S. "Journal of Social Sciences: A bibliometric study." Journal of Social Sciences.2010; 24(2): 77-80.

4. Singh, Har. "A bibliometric analysis of the Chinese Librarianship: an International Electronic Journal, 2009-2012." Chinese Librarianship: an International Electronic. 2013; 35: 16-27.

5. Abdi, Asad, Norisma Idris, Rasim M. Alguliyev, and Ramiz M. Aliguliyev. "Bibliometric analysis of IP&M Journal." Journal of Scientometric Research. 2018; 7(1): 54-62.

6. Wei, Guangyue. "A bibliometric analysis of the top five economics journals during 2012-2016." Journal of Economic Surveys. 2019; 33(1): 25-59.

7. Giménez-Espert, María del Carmen, and Vicente Javier Prado-Gascó. "Bibliometric analysis of six nursing journals from the Web of Science, 2012-2017." Journal of advanced nursing. 2019; 75(3): 543-554.

8. Hussain, Akhtar, and Nishat Fatima. "A bibliometric analysis of the 'Chinese Librarianship: an International Electronic Journal, (2006-2010)'." Chinese Librarianship: an International electronic. 2011; 31: 1-14.

9. Balstad, MaritTerese, and Terje Berg. "A long-term bibliometric analysis of journals influencing management accounting and control research." Journal of Management Control. 2020; 30(4): 357-380.

10. Tallolli, Somaraya B., and K. R. Mulla. "A bibliometric analysis of journal of information literacy (2011 to 2015)." ISST Journal of Advances in Librarianship. 2016; 7(2): 44-51.

******