

INDIAN JOURNAL OF CRITICAL CARE MEDICINE: A SCIENTOMETRIC STUDY

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Abstract: - The study is based on the Scientometric analysis of 1446 research articles published in the journal of the Indian Journal of Critical Care Medicine during the periods of 2018-2022. This Study will review on length of the title, numbers of pages, type of document, chronological distribution of article, no of references print as well as web references authorship pattern, author productivity and further, it reveals Majorities articles are published by India contributors followed by the USA and alternative contributors. The findings must reveal various aspects of the characteristics and patterns of contributions to the study.

Keywords: Scientometrics, Critical Care, Medicine, literature and democracy

1.0 INTRODUCTION

1.1 Scientometrics:

Scientometrics is the science of measuring and analyzing science. In practice, Scientometrics is often done using Bibliometrics which is a measurement of the impact of (scientific) publications.

Scientometrics is the science of method scientific output similar to Bibliometrics used by librarians and information scientists. (Agrawal, Aruna, 1982); related fields are the history of

science and technology philosophy of science and sociology of scientific knowledge. (Eugene Garfield, 1995) ; application of mathematical and statistical methods of scientific literature (Derek de Solla, 2000); to identify national an international network and to map the development of new fields of science and technology as well as to know the inner logic of science development (yadavJaisi Ram, 1984); this enables to evaluate the size of scientific production on the assumption that the essence of scientific activity is the assumption the production of knowledge (Eugene

Garfield, 2002); open access has emerged in the last few years as serious alternative to additional commercial publishing models taking the benefits offered by technology one step further (Wasudevan K T 1995); one significant finding in the field is principle of cost escalation to the effect that achieving further findings at a given level of importance grow exponentially more costly in the expenditure of efforts and resources (Manavalan R 1982); other characteristics of open access journals are that author relation copyrights and they must self achieved content in an independent repository (David Wilson, 2001); modern Scientometrics is mostly based on latter founded the institute for scientific information which is heavily used for Scientometric analysis (Derek, J. 1995); currently prepares and international methodological manual that will contain guidelines for creating applying and interpreting the indices based on Bibliometric data (Eva Rodenas, 2001).

Review of literature:-

Scientometric is complex of quantitative method which is used to investigate the process of science. According to Kademani and et al. (2005), the key scientometric concepts include: if the scientist is a renowned personality in this field these specializations will naturally attract more number of collaborators. Mahapatra and Kaul (1992); Singh (2007); Kogamuramath, (2001); Deshpande (1997); indicates that the use of analysis of chronological distribution show that older documents are less cited than newer ones.

Le Minor, (1991), carried out the study in Self-citation is part of the wider analysis of scientific and scholarly citation patterns. Nicolsion, (2002), indicates that the Journal self-citation is an interesting bibliometric indicator that gives in an indication about the popularity of the journal among its contributors as well as the reader community. Lehnus (1973); analyzed Authors enrich a subject by their contributions citation analysis studies identify the familiar and prominent in the field. Kademani and et al. (2005) the key Scientists are trying to write jointly than the single author; joint author and more than two authors are authorship patterns. Kulsrestha and Haridasan, (2007), analyzed Personalities in the subject, whose work is used by the authors to refine their ideas on the used by the authors to refine their ideas on the subject topic. Balasubramanian and Bhaskar, (1984), indicate that the Self-citation refers to the number of times the previous papers published in the same journal, the rate of self-citation is lower than other authors citations.

1.2 Definition Analysis:

1.2.1 Scientometrics:

According to bank apr, M.B., and Kumabar, (1993) "Scientometrics is a more general that Bibliometrics. It is interesting to know, that both disciplines have a large overlap. It is surprising to learn certain comments stating that both disciplines have a large overlap. It is surprising to learn certain comments stating that

Scientometrics, using Bibliometrics techniques id a part of Bibliometrics".

1.2.2 Scientometric Analysis:

According to (2006), Wouters, a cart intention has always existed between academic Scientometrics and political /practical, Scientometrics, the latter of which has been described as a hybrid of social science and bur rerate expertise (2006).

1.2.3. Indian Journal Of Critical Care Medicine

The Indian Society of Critical Care Medicine (ISCCM™) was formed in 1993 to promote high-quality critical care in India. India is the largest democracy in the world. With the large population, comes the need for a large number of hospitals, Intensive Care Units and therefore doctors trained in intensive care. Unfortunately, no formal training in critical care was available to doctors in the medical colleges or hospitals in India. The Indian Society of Critical Care Medicine (ISCCM™) was formed in October 1993 as a result of this need felt by doctors for some platform whereby physicians, anesthetists, surgeons, etc. interested in critical care medicine could share their views, anxieties, problems, and data. ISCCM™ promotes critical care in India through clinical monthly meetings, seminars and national conferences throughout the country. It publishes its journal "TheIndian Journal of Critical Care Medicine" starting July 1997 which

will be made available, full text, at this site. Indian Journal of Critical Care Medicine (ISSN 0972-5229) is a specialty periodical published under the auspices of the Indian Society of Critical Care Medicine. Journal encourages research, education, and dissemination of knowledge in the fields of critical and emergency medicine

2.0 OBJECTIVES OF THE STUDY:

The main objectives of the present study are:

1. To study the year-wise distribution of articles
2. To identify the length of the page per article.
3. 6. To find out the country-wise distribution of articles.
4. 7. To find out the authorship pattern in the publication.
5. 8. To find out the reference of the article (Print as well as Web).

3.0 HYPOTHESIS:

The following hypotheses are formulated for the present study.

1. Maximum articles in the year 2014 are 231.
2. The majority of the multiple authors among single authors.
3. India is a highly productive country.
4. The majority of the references are print references.

4.0 SCOPE AND LIMITATION OF THE STUDY:

The present study is based on the Scientometrics Profiles of Journal of Indian

Journal of Critical Care Medicine. 2018-2022. The present study is based on overall 1446 articles from 2010-2014.

5.0 DATA COLLECTION:

Data can be numerically expressed that is quantified quantifiable or objective (Fasibs off and Dely, 1990) the data was collected from the journal of Critical Care Medicine, a total of 1446 articles, from 2018-2022.

6.0 DATA ANALYSIS AND INTERPRETATION:

Scientometrics analysis is a branch of bibliometrics. It is an important research tool for the understanding of the subject it aims at measuring the utility of documents and the relationship between documents and fields.

The present study is based on the Scientometrics Profiles of Journal of Critical Care Medicine from 2018-2022. The present study is based on overall 1446 articles from 2018-2022.

1. Year-Wise Distribution of Contributions

The year-wise Distribution of contributions is shown in Table No.1

Table No. 1: Distribution of contributions

Sr. No	Year	Frequency	Percentage
1	2022	310	21.44
2	2021	370	25.59
3	2020	352	24.34
4	2019	216	14.94
5	2018	198	13.69
Total		1446	100.00

It can be observed from table No. 1 & Figure no. 1 out of the total 1146 contributions majority of the contributions i.e. 370 contributions were contributed in 2021 were as minimum contributions i.e. 198 contributions were contributed in 2018. **In which hypothesis no.01 is valid. “The majority of the contributions are contributed in 2021” Table no, 01.**

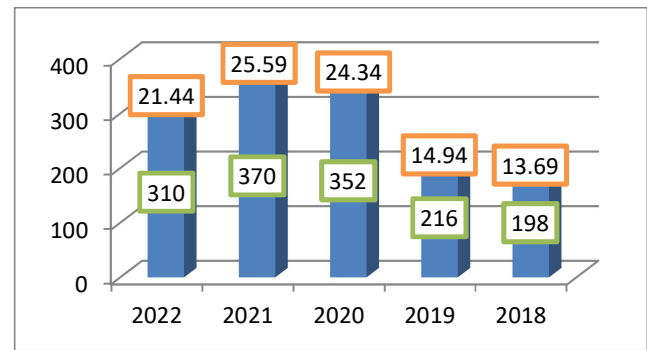


Figure No. 1 Distribution of contributions (year-wise)

2. Authorship pattern of contribution

The Authorship pattern of contributions is shown in Table No.2

Table No.2: Authorship pattern of contributions

Sr	Number of Authors	Frequency	%
1	Single	206	14.25
2	Two	346	23.93
3	Three	384	26.56
4	Four	246	17.01
5	Five	121	8.37
6	Six	72	4.98
7	Seven	36	2.49
8	Eight	18	1.24
9	More Than Eight Author	17	1.18
	Total	1446	100.00

The distribution of the Authorship pattern is given in Table No.2. The table shows the multi authorship is predominant then single authors. Table No. 2 & Figure no. 2 indicates the majority of the contributions are contributed by four authors. **In which hypothesis no.02 is valid.** **“The majority of the Multiple Authors among the Single authors” Table no, 2.**

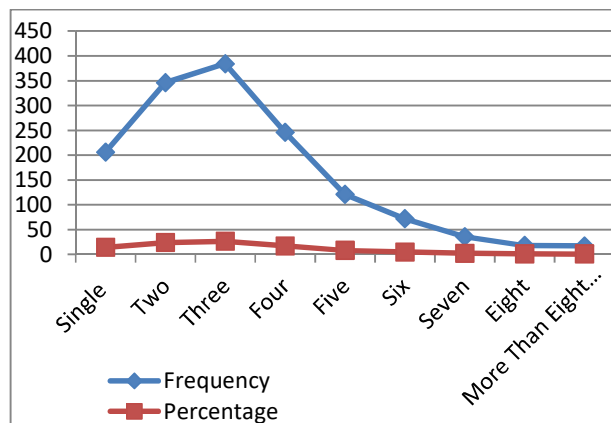


Figure No. 2 Authorship pattern of contributions

3. Country-wise distribution of the article

The country-wise distribution of the article showed the table no.3.

Table No. 03. Country-wise distribution of the article

Sr. No.	County	Frequency	Percentage
1	India	2247	38.84
2	USA	1656	28.63
3	UK	823	14.23
4	Iran	204	3.53
5	Australia	85	1.47
6	Thailand	22	0.38
7	Spain	4	0.07
8	Egypt	3	0.05
9	Turkey	3	0.05
10	Belgium	2	0.03

11	Brazil	2	0.03
12	Doha Qatar	2	0.03
13	Japan	2	0.03
14	Three country publication 3X59	177	3.06
15	Double country publication 2 X 128	256	4.43
16	single country publication 1X297	297	5.13
Total		5785	100.00

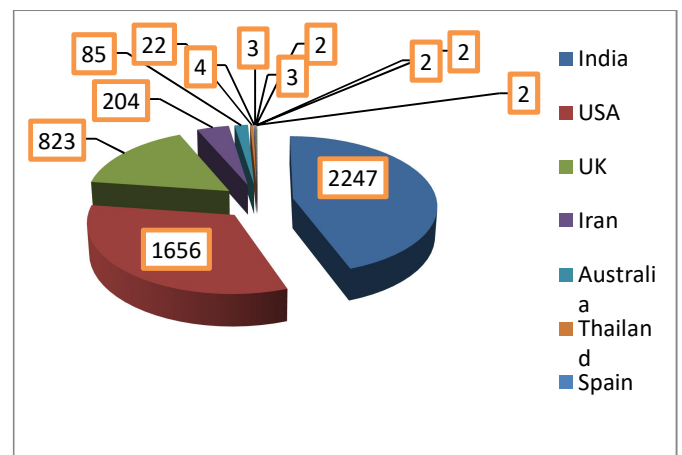


Figure No. 03. Country-wise distribution of the article

It can be observed from Table No. 3 the country-wise distribution of contributors, the table 3 reveals that out of the total 1446 contributors has contributed during 2018-2022, majority of publication 2247 (3884%) have been contributed form India country. 1656(28.63%) contributors have been contributed from the USA, 823 (14.23%) contributors have been contributed form the UK, 204 (3.35%) contributors have been contributed from Iran, 85(1.47%) contributors have been contributed from Australia, **In which hypothesis no.03 is valid.** **“The majority of the contributions are contributed by India” Table no, 04.**

4. Distribution Of Literature In Various Channels Of Communication

Channel, in communications, refers to the medium used to convey information from a sender (or transmitter) to a receiver. Researchers communicated their publication through variety of communication channels.

Table no.04. Type of document wise distribution of an article

Sr No	Document Type	Frequency	%
1	Article	1025	70.89
2	Editorial	197	13.62
3	Letter	160	11.07
4	Review	41	2.84
5	Note	20	1.38
6	Erratum	2	0.14
7	Conference paper	1	0.07
	Total	1446	100.00

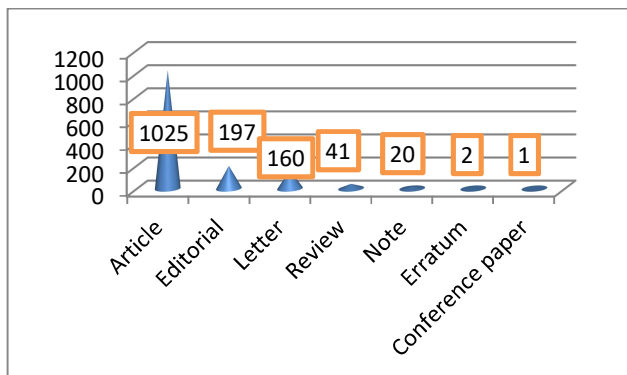


Figure no.04. Type of document wise distribution of an article

It can be observed from table no. 04 and Figure No.04 that, 1025 (70.89%) of the Literature was published in Articles followed by Editorial 197 (13.62 %), Letter 160 (11.07%), Review 41 (2.84 %), Note 20(1.38%), Erratum 2(0.14 %), and Conference paper 1(0.07%) is analyzed.

5. No. of References wise distribution of an article

Table no.05 No. of References wise distribution of an article

Year	Print References	Web References	Total No. of References	Percentage
2022	3640	33	3673	39.65
2021	1842	3	1845	19.92
2020	1247	10	1257	13.57
2019	1325	13	1338	14.44
2018	1146	5	1151	12.42
Total	9200	64	9264	100.00

It can be observed from the table no 05 and figure also maxim articles are from print references the majority print references in the year of 2022 were 3640 and then the minimum references are from web references total 64 web references in the duration of 2018 to 2022 and majority web references in the year 2022 are total 33 web references are given there. **In which hypothesis no.04 is valid."The majority of the contributions are contributed by print references" Table no, 05.**

6. Length of Title wise distribution of the article

The Length of Title wise distribution of article shown the Table No.8

Table no.06 Length of Title wise distribution of the article

Length of Pages	Frequency	Percentage (%)
01 to 5	1302	90.04
06 to 10	133	9.20
11 to 15	8	0.55
16 to 20	3	0.21
Total	1446	100.00

It can be observed from the table no 06 and figure the majority articles length of pages 1302 articles from 1 to 5 pages. Then 133 articles were from 6 to 10. then 8 articles from 11 to 15 pages. Then 3 article was from 16 to 20 pages.

7.0 FINDINGS AND CONCLUSION:

1. The highest numbers of 370 (25.59%) of papers were published in 2021 contributing.
2. 97 countries carrying out research and produced 1446 articles. India is the top most Producing Country with 2247 (38.84) publications of the total output.
3. The majority of references are from print references.
4. The majority of web references are available in the year 2022.
5. The majority of 1302 (90.94) of publications have length of title 01 to 05.

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