INDIAN JOURNAL OF CRITICAL CARE MEDICINE: A SCIENTOMETRIC STUDY 2010-2014

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Abstract: *The study is based on the Scientometric analysis of 501 research articles published in the journal of the Indian Journal of Critical Care Medicine during the periods of 2010-2014. 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 410 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.*

Key Words: Scientometrics, Indian Journal of Critical Care Medicine

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).

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 "The Indian 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 study the frequency of citations
3. To study the mail domain of publications
4. To study the Edomain of publications
5. To identify the length of the page per article.
6. To find out the country-wise distribution of articles.
7. To find out the authorship pattern in the publication.
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 contributions are contributed by FourAuthors.
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. 2010-2014. The present study is based on overall 501 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 501 articles, from 2010-2014.

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 2010-2014. The present study is based on overall 501 articles from 2010-2014.

1. Year-Wise Distribution of Contributions

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

Table No. 1: Distribution of contributions

Year	Frequency	Percentage
2010	51	10.17
2011	56	11.17
2012	60	11.97
2013	103	20.55
2014	231	46.1
Total	**501**	**100**

It can be observed from table No. 1 & Figure no. 1 out of the total 501 contributions majority of the contributions i.e. 231 contributions were contributed in 2014 were as minimum contributions i.e. 51 contributions were contributed in 2010. **In which hypothesis no.01 is valid."The majority of the contributions are contributed in 2014" Table no, 01.**

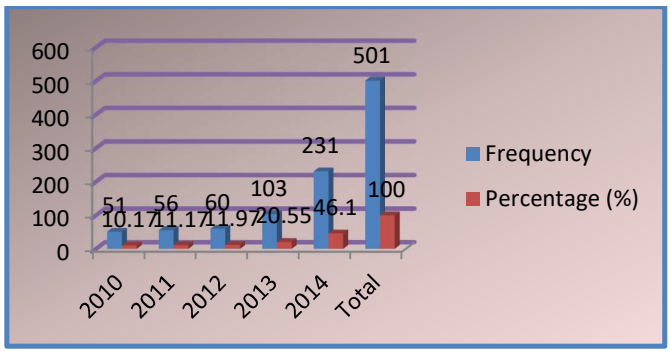

Figure No. 1 Distribution of contributions (year-wise)

2. Authorship pattern of contribution

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

Table No.2: Authorship pattern of contributions

Authorship pattern of contributions			
Sr	Number of Authors	Frequency	Percent
1	Single	78	15.57
2	Two	84	16.77
3	Three	83	16.57
4	Four	106	21.16

5	Five	65	12.97
6	Six	48	9.58
7	Seven	17	3.39
8	Eight	10	2.00
9	More Than Eight Author	20	3.99
Total		**501**	**100**

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 contributions are contributed by Four authors" Table no, 2.**

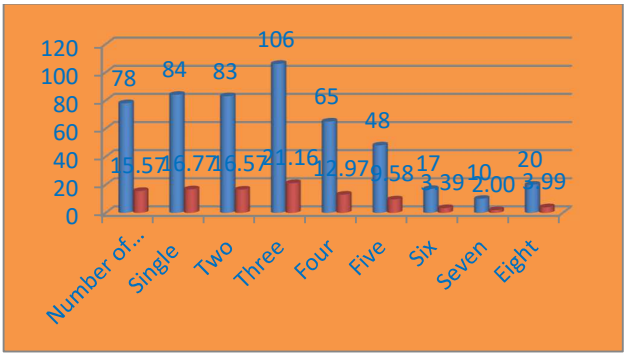

Figure No. 2 Authorship pattern of contributions

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	Percent
1	India	410	81.84
2	USA	22	4.39
3	UK	10	2
4	Iran	6	1.2
5	Australia	5	1
6	Thailand	5	1
7	Spain	4	0.8
8	Egypt	3	0.6
9	Turkey	3	0.6
10	Belgium	2	0.4
11	Brazil	2	0.4
12	Doha Qatar	2	0.4
13	Japan	2	0.4
14	Malaysia	2	0.4
15	Nigeria	2	0.4
16	single country publication 1*21	21	4.19
Total		**501**	**100**

It can be observed from Table No. 3 the country-wise distribution of contributors, the table 3 reveals that out of the total 501 contributors has contributed during 2010-2014, majority of article 410(81.84%) have been contributed form India country. 22(4.39%) contributors have been contributed from the USA,10(2%) contributors have been contributed form the UK,6(1.2%) contributors have been contributed from Iran, 5(1%) contributors have been contributed from Australia and Thailand, 4(0.8%) contributors have been contributed from Spain, 3(0.6%) contributors have been contributed from Egypt and Turkey,2(0.4%) contributors have been contributed from Belgium, Brazil, Doha, Qatar, Japan, Malaysia and Nigeria,21 (4.19) country contributed with 1 publication.**In which hypothesis no.03 is valid."The majority of the contributions are contributed by India" Table no, 04.**

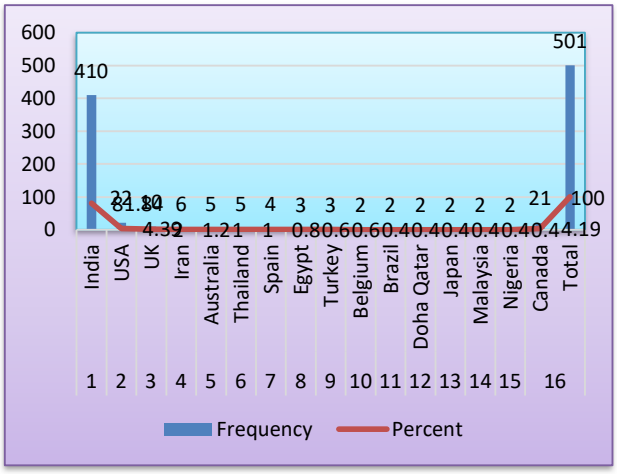

Figure No. 03. Country-wise distribution of the article

4. Email domain wise distribution of the article

The Email domain wise distribution of the article shown the table no.4

Table No. 04. Email domain wise distribution of the article

Email domain	Frequency	Percentage (%)
yahoo	219	43.71
was	139	27.74
vsn	51	10.17
uzbrusse	46	9.18
uw	3	0.33
univpm	2	0.22
ulb	2	0.22
single time publication email 1*39	39	7.78
Total	**501**	**100**

It can be observed from Table no. 4 there were as many as 219(43.71) authors used the yahoo.

139 (27.74) authors used the wusm email domain. 51(10.17) authors used the vsn email domain and 46 authors used the uzbrusse email domain. 3 (0.33) authors used the UW email domain .2 (0.22) authors used uniform and be mail domain and one publication of the mail domain used 39(7.78) their email domain.

5. Domain name wise distribution of the article

The Domain name wise distribution of the article shown the table no.5

Table no.05. Domain name wise distribution of the article

Edomain	Frequency	Percentage (%)
ac.be	426	85.02
ac.in	31	6.18
ac.ir	6	1.19
ac.jp	4	0.79
ac.uk	4	0.79
be	3	0.59
ca	3	0.59
co.in	2	0.39
single time publication email 1*22	22	4.39
Total	**501**	**100**

It can be observed from Table no. 5 there were as many as 436 (85.02) authors used the ac.be.
31 (6.18) authors used the ac.in Edomain. 6(1.19) authors used the ac.ir Edomain and 4(0.79) authors used the ac.jp and ac.uk Edomain. 3 (0.59) authors used to be and ca Edomain .2 (0.39) authors used co.in Edomain and one publication of the Edomain used 22(4.39) their Edomain.

6. Type of document wise distribution of an article

The Type of document wise distribution of article shown table no. 6

Table no.06. Type of document wise distribution of an article

Sr. No.	Documents	Frequency	Percent
1	Article	501	100
	Total	501	100

It can be observed from Table no. 6 the highest 501(100%) number of publications has reviewed the document type.

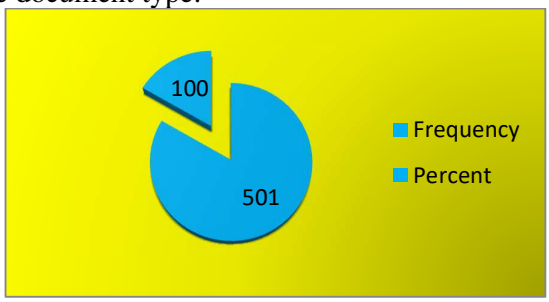

Figure no.06. Type of document wise distribution of an article

7. No. of References wise distribution of an article

The No. of References wise distribution of article shown table no.7

Table no.07 No. of References wise distribution of an article

year	Print References	Web References	Total No. of References	Percentage
2010	922	5	927	12.03
2011	878	3	881	11.43
2012	933	10	943	12.23
2013	1447	13	1460	18.94
2014	3461	33	3494	45.34
Total	**7641**	**64**	**7705**	**100**

It can be observed from the table no 07 and figure also maxim articles are from print references the majority print references in the year of 2014 were 3461. and then the minimum references are from web references total 64 web references in the duration of 2010 to 2014 and majority web references in the year 2014 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, 07.**

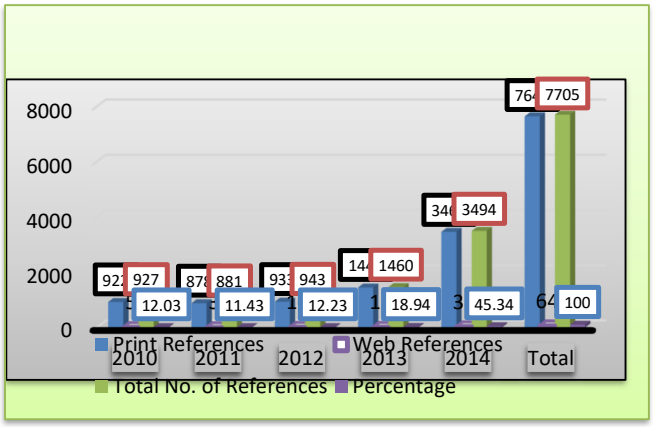

Figure no.07 No. of References wise distribution of the article

8. Length of Title wise distribution of the article

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

Table no.08 Length of Title wise distribution of the article

Length of Pages	Frequency	Percentage (%)
01 to 5	400	79.84
06 to 10	90	17.96
11 to 15	8	1.59
16 to 20	3	0.59
Total	**501**	**100**

It can be observed from the table no 08 and figure the majority articles length of pages 400 articles from 1 to 5 pages. Then 90 articles were from 6 to 10.then 8 articles from 11 to 15 pages. Then 3 article was from 16 to 20 pages and remaining four articles were from 16 to more than pages.

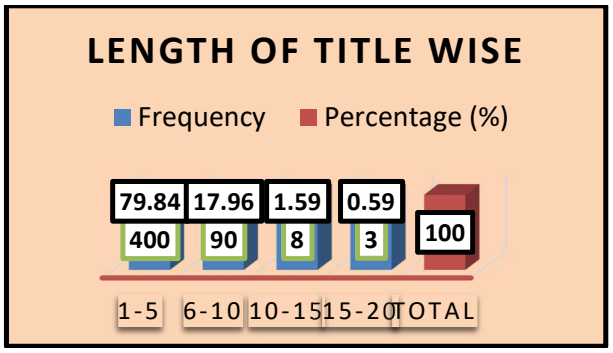

Figure no. 08 Length of Title wise distribution of an article

7.0 FINDINGS AND CONCLUSION:

1. The highest numbers of 231 (46.1%) of papers were published in 2014 contributing.
2. 36 countries carrying out research and produced 501 articles. India is the top

Producing Country with 410 publications of the total output.

3. The majority of 400 of publications have citations from01 to 05.
4. The majority of references are from print references.
5. The majority of web references are available in the year 2014.

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