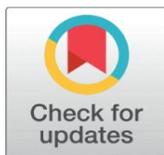
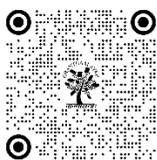


BIBLIOMETRIC ANALYSIS OF RESEARCH JOURNAL OF PHARMACY AND TECHNOLOGY (2008- 2012)

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ABSTRACT

Analyse research papers published in the “RJPT” journal for five years from 2008 to 2013. Examines year-wise distribution of publications, issue-wise distribution of articles, authorship pattern, degree of collaboration, and geographical distribution of articles. The data for the present study was obtained from the journal archive's official website RJPT. The retrieved data was analyzed to understand the pattern of authorship, degree of collaboration, and region-wise distribution of authors. The study revealed that most contributions were from India, particularly Maharashtra and Tamil Nadu.

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Keywords: Bibliometric, Pharmaceutical Science, Research Publications, RJPT Journal.



1. INTRODUCTION

Pharmacy is the base of health sciences. This profession is responsible for treating a Patient by preparing, dispensing and appropriately using medication, which provides services to achieve optimal therapeutic outcomes. A pharmacist's job is to prepare, mix, compound, or distribute drugs and medicines, ointments, powders, pills, tablets, and injections on the prescription of a medical practitioner, dentist, or veterinarian. In detail, they are concerned. With the production of pharmaceutical products, the development of the methods or processes of production, and quality control. (Ritu, Mueen & Gupta, 2014).

Journals play a very vital role in disseminating current information among researchers and teachers. Students, scientists, and others concerned with research and innovations. As in any field of specialisation, journals are the medium through which innovations in the field are communicated by scientists and researchers to the world.

Bibliometrics is a research method used in library and information science. Allen Pritchard coined the term bibliometric in the 1990s. The term is used for stressing various aspects, such as the counting of books, articles, publications, and citations. Allen Pritchard (1969) defined bibliometrics as 'the application of mathematics and statistical methods to

books and other media of communication.' The British Standard Glossary of Documentation of Terms (1976) defined bibliometrics as the study of the use of documents and patterns of publications in which mathematical and statistical methods have been applied.

2. ABOUT RJPT JOURNAL

'Research Journal of Pharmacy and Technology' is a peer-reviewed, multidisciplinary research journal in the area of pharmacy and pharmaceutical science technology. It is a leading monthly journal published by A & V Publication, Raipur, Chhattisgarh, India. It started as a quarterly journal in the year 2008. It was published quarterly from 2008 to 2010 (Vol. 1 to Vol. 3). Now it is published monthly since the year of 2011 (vol. 4) onwards. RJPT publishes full research papers and review articles. The publications of RJPT are indexed and abstracted with SCOPUS, ProQuest, CAS Abstract, CAS (Chemical Abstract Service), ISA (Indian Citation Index), Google Scholar, CINKI Scholar, EBSCO Discovery, etc.

3. REVIEW OF LITERATURE

Few bibliometric and scientometric studies have been published in the area. Kulkarni, A.P. (2009) provided a bibliometric analysis of the articles published in Indian Journals of Pharmaceutical Education and Research (1996-2006). It was found that journals are the primary citation source, followed by books. Most authors prefer multiple authorship. Dave, L. (2021) identified 141 pharmacy practice department chairs, with a majority male (51.8%) and professor rank (56.0%), from both public and private institutions (49%) and health sciences centres (61.2%) affiliated with health sciences centers. Thakur, Vinod Kumar (2021) analyses 978 articles published by the University Institute of Pharmaceutical Sciences (UIPS) from 2009-2018, revealing an average citation per paper of 15.66. The institute's publication share and citation share are 10.92% and 10.95%, respectively. Hugar Jayaprakash (2018) highlighted the authorship and research publication trend in pharmaceutical sciences from 2013 to 2017, analyzing 1913 research articles published. The growth of articles, the highest number of funding agencies, and the average number of publications per year. Vikas Jagtap (2017) examined 578 articles published in the Indian Journal of Medical Research (IJMR) from 2011 to 2014. Covering year-wise articles, classification of articles, subject-wise articles, authorship patterns, and institution-wise distribution of contributions. Arumugam, R. (2020) analyzed the growth of research articles, authorship pattern, degree of collaboration, and growth rate of articles in pharmaceutical electronic journals using Pharma Intelligence. The results showed that most journals had biannual periodicity. The highest contribution of articles was in 2017 from single and multi-authors. Sourour (2021) analyze 123 pharmaceutical sciences-related articles in Qatar from 2013 to 2020. Highlighted publication dates, authors, publishing journals, impact factor, and H-index. The study found that 123 articles were published, with an average annual growth rate of 6.7% and 946 citations. Waleed (2021) retrieved 1496 articles from Scopus, focusing on pharmacy practice in the Arab region.

4. OBJECTIVE OF THE STUDY

The objective of the present study is

1. To study the year-wise distribution of research articles.
2. To study the issue-wise distribution of research articles.
3. To study the authorship pattern.
4. To study the degree of collaboration.
5. To study the geographical distribution of research articles.

5. METHODOLOGY

A bibliometric analysis method was used for the study. Data involving research articles and review articles published in the journal was retrieved from the journal's official website, consisting of volume No. 1 (2008) to volume No. 5 (2012). Microsoft Excel was used for the data tabulation and analysis.

6. ANALYSIS AND DISCUSSION

Table 1 given below represents the year-wise distribution of research articles. A total number of 1272 articles were published in the RJPT Journal from 2008 to 2012. On average, 254 articles were published per year. The highest number of research articles was published (401) in the year 2011. The lowest number of articles (106) was published in the year 2008.

Table - 1 Year-wise Distribution of Research Articles

Year	Vol. No.	No. of Issues	No. of Articles	Percentage %
2008	1	4	106	8.33
2009	2	4	176	13.83
2010	3	4	278	21.85
2011	4	12	401	31.52
2012	5	12	311	24.44
Total	5	36	1272	100.00

Table 2 given below presents the volume-wise distribution of research articles. The highest number of articles (401) were published in volume 04, which forms about 31.52% of the total publications. The least number of research (106) was published in the 1st volume.

Table -2: Issue wise Distribution of Research Articles

Issue	Volume					Total Articles
	1 (2008)	2 (2009)	3 (2010)	4 (2011)	5 (2012)	
Jan	--	--	--	32	30	62
Feb.	--	--	--	32	29	61
March.	11	41	65	34	31	182
April	--	--	--	41	21	62
May	--	--	--	36	21	57
June	11	42	67	33	30	183
July	--	--	--	34	25	59
Aug.	--	--	--	37	25	62
Sept.	33	38	72	30	20	193
Oct.	--	--	--	29	39	68
Nov.	--	--	--	33	19	52
Dec.	51	55	74	30	21	231
Total	106	176	278	401	311	1272

Table 3 presents the authorship pattern of the publications. Solo author contributions were 20 articles, forming 1.57% of the total number of research articles. Two-author contributions were 219 articles, forming 17.21%; three-author contributions were 281 articles, forming 22.09%; four-author contributions were 295 articles, forming 23.19%; and the remaining five and more author contributions were 457 articles, forming 35.92%. Five or more authors contributed the highest number (457) of articles. Table 3 given below shows that multi-author research papers dominate over single-authored research articles.

Table -3 : Authorship Pattern

Year	Single	Two	Three	Four	Five and More	Total
2008	1	21	31	23	30	106
2009	3	32	37	36	68	176
2010	--	39	42	59	138	278
2011	13	77	92	104	115	401
2012	3	50	79	73	106	311
Total	20	219	281	295	457	1272

TABLE 4 SHOWS THE DEGREE OF COLLABORATION.

The degree of collaboration is measured by using the formula suggested by Subramanian.

DC = Degree of Collaboration

NM = Number of Multi-Authored Contributions

NS = Number of Single Authored Contribution

Table 4 Degree of Collaboration

Year	Single	Multi Author	Total	Degree of Collaboration
2008	1	105	106	0.99
2009	3	173	176	0.98
2010	2	276	278	0.99
2011	13	388	401	0.96
2012	3	308	311	0.99

Total	20	1252	1272	0.98
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Table 4 shows that the value of the degree of collaboration was highest during the years 2008 and 2010, at 0.99, respectively, and the lowest in the year 2011, at 0.75. This fluctuation indicates a significant change in collaborative efforts during these years, suggesting that external factors may have influenced the degree of collaboration among the entities involved. 0.96. In the present study, the value of the degree of collaboration is $= 0.98 (1252 / 1252 + 20)$.

TABLE 5: GEOGRAPHICAL DISTRIBUTION OF AUTHORS

Table 5 shows the geographical distribution of research articles in five volumes of the RJPT journal. The highest number of research articles was contributed by authors from Maharashtra, with 386 articles, 15.09%. The authors from Tamil Nadu and Andhra Pradesh have contributed 192 and 153 articles, which come to 12.02% and 9.98%, respectively. The authors from outside India contributed 27 articles.

Nigeria contributed 7 articles (0.47%); Bangladesh contributed 6 articles (0.39%); Kuwait contributed 4 articles (0.23%); Thailand contributed 1 article (0.07%) during the period 2008-2012.

Rank	State / Country	No. of Articles	Top ten Ranked state	Percentage
1	Maharashtra	386	01	15.09
2	Tamilnadu	192	02	12.02
3	Andhra Pradesh	153	03	9.98
4	Karnataka	127	04	6.36
5	Gujrat	81	05	4.79
6	Rajasthan	61	06	4.71
7	Madhya Pradesh	60	07	3.06
8	Chhatisgarh	39	08	2.20
9	Panjab	28	09	2.04
10	Uttar Pradesh	26	10	1.25
11	Orissa	16	11	1.17
12	Sikkim	15	12	1.10
13	West Bengal	14	13	0.86
14	Uttarakhand	11	14	0.70
15	Haryana	9	15	0.62
16	Kerla	8	16	0.55
17	Nigeria	7	17	0.47
18	Bangladesh	6	18	0.39
19	New Delhi	5	19	0.31
20	Kuwait	4	20	0.23
21	Egypt	3	21	0.23
22	Puducherya	3	21	0.23
23	Telangna	3	21	0.15
24	Assam	2	22	0.15
25	Himachal Pradesh	2	22	0.15
26	Jharkhand	1	23	0.07
27	Goa	1	23	0.07
28	Tripura	1	23	0.07
29	Libiya	1	23	0.07
30	Turkey	1	23	0.07
31	Abidjan	1	23	0.07
32	Italy	1	23	0.07
33	Malaysia	1	23	0.07
34	Iraq	1	23	0.07
35	North Africa	1	23	0.07
36	Thailand	1	23	0.07
Total		1272		

7. CONCLUSION

The RJPT journal is one of the important publications in the field of pharmacy and pharmaceutical science education. The highest numbers of contributions were from Maharashtra, with 386 articles (15.09% of the total publications), followed by Tamil Nadu and Andhra Pradesh, which contributed 192 and 153 articles, which come to 12.02% and 9.98%,

respectively. The dual-authored publications constituted the highest percentage (60.20%) of the total publications, followed by single-authored publications (21.42%). The degree of collaboration was highest during the years 2008 and 2010, with 0.99, respectively, and the lowest in the year 2011 with 0.96. The total degree of collaborations for the period 2008 to 2012 was 0.98.

The findings about authorship pattern and geographical distribution of authors for the period covered tally with the findings of the earlier studies conducted before the present study. The finding may help pharmaceutical science professionals, teachers, researchers, students, library and information science professionals in assessing the journal and in deciding on publishing their research papers in the journal.

CONFLICT OF INTERESTS

None.

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