Pharmacogn. Mag.
A multifaceted peer reviewed journal in the field of Pharmacognosy and Natural Products
www.phcog.com | www.phcog.net

ORIGINAL ARTICLE

Scientometric Analysis of Pharmacognosy Magazine: A Decade of Quality Publishing

M. Chaman Sab, Mallikarjun Kappi[1], KK Mueen Ahmed[2]

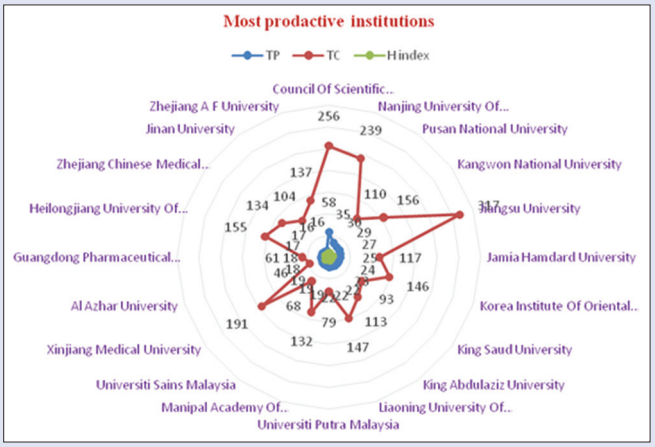
SBC First Grade College for Women and Athani P. G. Centre, Davanagere, [1]Department of Library and Information Science, Kuvempu University, Shankaraghatta, [2]Phcog.Net, 9, Vinse Towers, First Floor, Wheeler Road Extension, St., Thomas Town, Bengaluru, Karnataka, India

Submitted: 05-Apr-2021 Revised: 30-Apr-2021 Accepted: 19-May-2021 Published: 11-Nov-2021

ABSTRACT

Objective: This study attempt to quantitative assessment of journal productivity by the number of articles published in Pharmacognosy Magazine publications between 2011 and 2020. The present study provides a detailed scientometric analysis of publications by year-wise and citation count, document type, highly productive institutions, highly productive authors, most cited papers, country collaborations, and most used keywords of the journal. **Methodology:** The publication data on Pharmacognosy Magazine publications have been retrieved by using Web of Science database and the journal web page. The collected data were tabulated using MS Excel, later, we used the VOSviewer and biblioshiny for network graphs. **Results:** Results found that the 1494 publications and average citations per author 5.807. Average publication per year is 4.51, average citations per documents is 5.807, and majority of publications are published as articles, i.e. 1477, total 1574 institutes contributed 1494 papers, 29 (1.941%) papers published by single author, and the rest 1465 papers were published in collaborations. **Conclusion:** These results indicate that Pharmacogn Mag is one of the leading journals in where the journal is indexed, with publications from a wide range of authors, institutions, and countries around the world. The study summarizes using various scientometric techniques and analyzing the journal impact, prominent topics, most prolific authors and their affiliations, collaborative countries output, and most used keywords.

Key words: Authorship pattern, degree of collaboration, pharmacognosy magazine, scientometric study, web of science



Correspondence:

Dr. K. K. Mueen Ahmed,
Phcog.Net, 9, Vinse Towers, First Floor, Wheeler Road Extension, St., Thomas Town, Bengaluru, Karnataka, India.
E-mail: mueen.ahmed@gmail.com

DOI: 10.4103/pm.pm_221_21

Access this article online
Website: www.phcog.com
Quick Response Code:

INTRODUCTION

"Pharmacognosy Magazine" is a peer-reviewed open-access natural products journal published on behalf of "Pharmcognosy Network Worldwide." It publishes articles on pharmacology, natural products, phytochemistry, and phytopharmacology. The journal is indexed with Web of Science (WoS) (Science Citation Index Expanded), EMBASE, Indian Science Abstracts, Emerging Sources Citation Index, Baidu Scholar, CNKI, EBSCO Publishing's Electronic Databases, Ex Libris – Primo Central, Google Scholar, Hinari, Infotrieve, National Science Library, ProQuest, TDNet, and Wanfang Data. In its 1st-year publications in 2005, there are four issues with nine articles, and then, it published four issues each year and along with 2013 onward started supplementary issues, and now, it has worldwide distribution to researchers, decision-makers, and educators. According to the 2019 Journal Citation Reports of WoS shows that Pharmacognosy Magazine had an impact factor of 1.31, and its quartile was Q4 in the WoS category of Chemistry, Medicinal. This study presents a general analysis of Pharmacognosy Magazine publications using bibliometric methods.

In this study, bibliometric methods are applied to determine the developed structure and citation pattern of Pharmacognosy Magazine to present an overview of the journal's publications during 2001 and 2020 from a general perspective. First, classic bibliometrics is used to find significant "publications, authors, institutions, and countries" based on the total number of papers, citations, and citation thresholds. Second, network visualization analysis is applied to illustrate the citation connections and research topics by the VOSviewer software and bibliometrix R, including citation networks, cocitation networks, coauthorship, and cooccurrence networks. Moreover, the most cited journals and common author keywords are also presented to compare differences in research interests based on Pharmacognosy Magazine publications.

Cite this article as: Sab MC, Kappi M, Ahmed KK. Scientometric analysis of pharmacognosy magazine: A decade of quality publishing. Phcog Mag 2021;17:399-405.

Related work and research objectives

Many researchers around the world have conducted various bibliometric studies to understand how the publications of a particular journal are distributed. Most of these studies are directed at popular journals in specific disciplines on a global level. Marisha[1] conducted a scientometric of current science. The journal's publications have been analyzed for 28 years (1990–2017). Numerous different parameters are analyzed, such as research output pattern, cooperation trend, citation pattern, contributing countries and organizations, and highly cited articles. Keyword cooccurrence charts have also been generated to analyze important research topics and their trends over the years.

Many researchers[2-4] examined the "Indian Journal of Marketing," "Current Science," and "Indian Journal of Chemistry" based on research publications during 2013–2019, 2015–2019, and 2005–2009. The focus of the analysis is to find the geographic distribution of the article, the citation analysis, the authorship pattern, the citation pattern, and the important reference sources. Similarly, by manually dividing the publications into four main chemical fields for topic analysis, subdividing them into 45 categories, and determining the number/percentage of articles in each category.

Few papers[5] have analyzed the publication pattern of the "Flavours and Fragrance Journal" during 2000–2019 using Scopus database. Using various Scientometric indicators, studied "Relative Growth Rate," "Annual Growth Rate (AGR)," "Doubling Time," "Compound AGR," "Lotka's Law of Scientific Productivity," "Authorship pattern" specifically the "Collaborative Index," "Collaborative Co-efficient, Modified Collaborative Co-efficient," and other basic indicators.

The Indian Journal of Pharmaceutical Education and Research was analyzed in two separate papers by the different authors at various periods, i.e. 1996–2006 and 2007–2017.[6-7] Both studies were highlighted and identified the annual growth of publication and citation, authorship pattern, most prolific organizations, countries, citation profile, international contribution.

The analysis of the "Biomedical Journal of Iran"[8] is based on the results of the cross-sectional description and scientometric analysis. The data are collected from the PubMed, Scopus, and SCImago databases (2000–2017). Using various scientometric indicators, the number of citations, publications, CiteScore, SJR, SNIP, self-citations, and Q trends (quartile) are analyzed.

A bibliometric study was conducted on scientific research publications published in Food Chemistry Journal during 1976–2016 using Scopus database. The assessment finds the most cited papers, productive authors, and the foremost institutions and countries of the journal, using the various bibliometric indicators and examined the 20,050 publications, out of that 19,389 were articles, The China Ministry of Education is the most effective institution.[9]

The objectives of the study include.

1. To assess year-wise distribution of publications and citation count
2. To determine the authorship pattern and degree of collaboration (DC)
3. To find the document type of publications
4. To analyze the top 20 highly productive institutions
5. To find out the top 20 highly productive authors
6. To examine the top 20 most cited papers published in Pharmacognosy Magazine
7. To identify the top 20 most productive country-wise distribution
8. To evaluate the top 20 most used keywords.

METHODOLOGY

Groos and Pritchard[10] argued that bibliometric analysis is a technique that uses statistical tools to analyze bibliographic data. According to Hota *et al.*,[11] bibliometric methods are also beneficial in screening the intellectual structure of a research area. It is the most widely used method for constructing a broad overview of a journal.[12] For example, a study[13] provides a bibliometric analysis on 15 years of Journal of Consumer Research for Journal of Advertising,[14] for Journal of Travel and Tourism Marketing.[15]

For this bibliometric analysis study using data accessed from the WoS database and the journal website. In the advanced search, we used the publication name. The scope of the research limited for 10 years from 2011 to 2020, reflecting all the published work on the subject. There was no restriction on types of documents published during the study period. We characterized the publishing tendency by describing basic features by analyzing the year-wise distribution, authors output, authorship pattern and coauthorship relations, institutions, and countries. The collected data were tabulated using MS Excel, later, we used the VOSviewer and biblioshiny for network graphs.

Table 1: Bibliographic Details from 2011-20

Description	Results
Timespan	2011:2020
Sources (journals, books, etc)	1
Documents	1494
Average years from publication	4.51
Average citations per documents	5.807
Average citations per year per doc	0.8662
References	41823
Document types	
Article	1477
Correction	1
Editorial material	13
Letter	3
Document contents	
Keywords Plus (ID)	3261
Author's Keywords (DE)	5169
Authors	
Authors	5709
Author appearances	7877
Authors of single-authored documents	22
Authors of multi-authored documents	5687
Authors collaboration	
Single-authored documents	29
Documents per author	0.262
Authors per document	3.82
Co-authors per documents	5.27
Collaboration index	3.88

RESULTS

Sample data details during 2011–2020

The bibliographic records for this analysis were searched in the WoS database from 2011 to 2020 on May 12, 2020. The Table 1 describes the details of the total bibliographical data.

Research output and citation count

We measured journal productivity by the number of articles published in the journal, while journal impact is measured by its number of citations.[16] Table 2 presents the Pharmacognosy Magazine's annual citation structure. Results found that the 1494 publications and average citations per author are 5.807. Pharmacognosy Magazine published 58 publications in 2011, 234 publications in 2017, and 204 in 2020. Pharmacognosy Magazine highest citations have found 1647 in 2015 and lowest citations (33 citations) identified in the year 2020. Collectively, these data indicate that the journal has escalated both in terms of productivity and influence.

Document type of publications between 2011 and 2020

This study has observed a total of 1494 publications in Pharmacognosy Magazine. It has been observed from Figure 1; there are many document types are used by scientists to publish their research articles Pharmacognosy Magazine. The majority of publications are published in the form of articles, i.e. 1477 followed by Editorial Material 13, and Letter 3 and Correction 1 records are published during the period of 10 years.

Authorship pattern and degree of collaboration

Table 3 displays the authorship pattern of the Pharmacognosy Magazine. This journal was published 29 (1.941%) papers by single author and the rest 1465 papers were published in collaborations. It shows that collaborative authorship is widely used and accepted in this era.

The DC formula proposed by Subramanyam,[17] which is useful for calculating the DC in quantitative terms. The formula is as follows.

$$C = \frac{Nm}{Nm + Ns}$$

Where C = DC,

NM = Total of multi-authored papers,

NS = Total of single-authored papers,

Thus, the DC is 0.914 in 2011, 0.911 in 2012, and 0.926 in 2013, so on. The average DC is 0.968 during the study period.

Top twenty most productive institutions

A total 1574 institutes contributed 1494 papers. Top 20 productive institutions contributed over 16 publications spread over in 20 ranks listed in Figure 1 and Table 4. Council of Scientific Industrial Research (CSIR) Institutions (India) has contributed highest number of publications (3.882%) with highest 256 citations with 256 citations followed by Nanjing University of Chinese Medicine (People's R China) contributed 35 (2.343%) publications with 239 citations, Pusan National University (South Korea) contributed 30 (2.008%) publications with 110 citations, Kangwon National University (South Korea) contributed 29 (1.941%) publications with 156 citations; People's R China is highest affiliated institutes produced. Jiangsu University (People's R China) is top citations contributions with 317 citations, followed by CSIRs (India) with 256 citations.

Top twenty most productive author's from pharmacognosy magazine

Figure 2 and Table 5 list the twenty top most contributing authors to the Pharmacognosy Magazine. Ma, Choong Je, Kangwon National University, Institute of Bioscience and Biotech., Chunchon (South Korea) and Shen, YP; Yang, H, Naniangsu Univ, Sch Pharm, Dept Chinese Mat. Med. and Pharm (People's R China) are top contributors to Pharmacognosy Magazine with 20 publications each, followed by Weon, Jin Bae, Kangwon Natl Univ, College Biomed Science; Dept Med Biomat Engineering (South Korea) contributed 18 publications. Jin, Song-Heng, affiliated with Zhejiang Agr. and Forestry University, Jiyang Coll, Zhuji (People's of China) institute has achieved 126 citations.

Top twenty most highly cited papers from pharmacognosy magazine

Identifying the most cited articles published in Pharmacogn. Magazine is one of the methods for assessing the road of progress in Pharmacognosy Magazine.[18] What are the most highly cited articles at different periods in the journal of Pharmacognosy Magazine history? One measure of an articles influence is its number of citations.[19] Table 7 presents

Table 2: Year-wise distributions of publications and citation count

Publication years	TP	Percentage of 1494	TC	ACP	*h*-index
2011	58	3.882	1057	18.22	19
2012	56	3.748	806	14.39	16
2013	68	4.552	699	10.28	15
2014	173	11.58	1512	8.74	17
2015	188	12.584	1647	8.76	18
2016	134	8.969	1000	7.46	15
2017	234	15.663	1270	5.43	14
2018	200	13.387	428	2.14	8
2019	179	11.981	202	1.13	5
2020	204	13.655	33	0.16	2

TP: Total publications; TC: Total citations; ACP: Average citation per paper

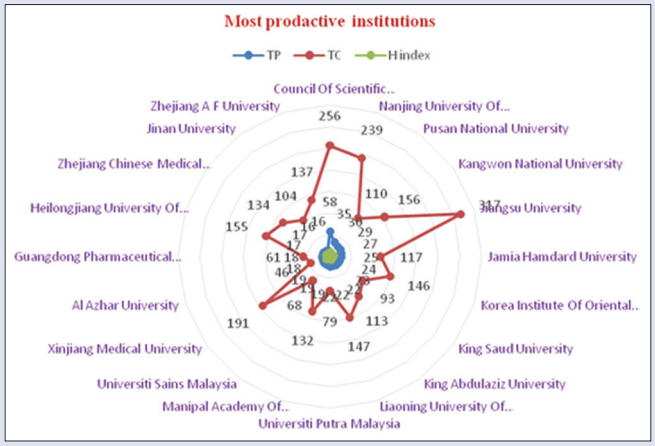


Figure 1: Most productive institutes

Table 3: Year-wise distributions of publications and citation count

Year	Single	Two	Three	Four	Five	≥Six	Total	DC
2011	5	4	14	11	9	15	58	0.914
2012	5	2	5	13	10	21	56	0.911
2013	5	4	9	16	12	22	68	0.926
2014	2	14	19	25	42	71	173	0.988
2015	0	16	26	35	30	81	188	1.000
2016	1	12	16	22	23	60	134	0.993
2017	5	13	36	39	47	94	234	0.979
2018	3	20	31	27	38	81	200	0.985
2019	2	10	17	28	35	87	179	0.989
2020	1	18	22	26	34	103	204	0.995
Total	29	113	195	242	280	635	1494	0.968
Percentage	1.941	7.564	13.052	16.198	18.742	42.503		

DC: Degree of collaboration

Table 4: Top twenty highly Productive Institutions from Pharmacognosy Magazine publications between 2011 and 2020

Institutions	Top twenty institutions productivity					
	Country	TP	Percentage of 1494	TC	ACP	*h*- index
CSIR India	India	58	3.882	256	4041	10
Nanjing University of Chinese Medicine	People's R China	35	2.343	239	6.83	10
Pusan National University	South Korea	30	2.008	110	3.67	6
Kangwon National University	South Korea	29	1.941	156	5.38	7
Jiangsu University	People's R China	27	1.807	317	11.74	10
Jamia Hamdard University	India	25	1.673	117	4.68	6
Korea Institute of Oriental Medicine Kiom	South Korea	24	1.606	146	6.08	7
King Saud University	Saudi Arabia	23	1.539	93	4.08	6
King Abdulaziz University	Saudi Arabia	22	1.473	113	5.14	7
Liaoning University of Traditional Chinese Medicine	People's R China	22	1.473	147	6.68	8
Universiti Putra Malaysia	Malaysia	22	1.473	79	3.59	4
MAHE	India	19	1.272	132	6.95	7
Universiti Sains Malaysia	Malaysia	19	1.272	68	3.58	5
Xinjiang Medical University	People's R China	19	1.272	191	10.05	9
Al Azhar University	Egypt	18	1.205	46	2.56	5
Guangdong Pharmaceutical University	People's R China	18	1.205	61	3.39	5
Heilongjiang University of Chinese Medicine	People's R China	17	1.138	155	9.12	8
Zhejiang Chinese Medical University	People's R China	17	1.138	134	7.88	9
Jinan University	People's R China	16	1.071	104	6.5	6
Zhejiang A F University	People's R China	16	1.071	137	8.56	7

CSIR: Council of Scientific Industrial Research; MAHE: Manipal Academy of Higher Education; TP: Total Publications; TC: Total Citations; ACP: Average citation per paper

Table 5: Top twenty highly productive authors from Pharmacognosy magazine publications between 2011 and 2020

Auhor	Top twenty highly prodactive authors					
	Organization	Country	TP	TC	ACP	*h*- index
Ma, Choong Je	Kangwon National University, Institute of Bioscience and Biotech., Chunchon	South Korea	20	101	5.05	6
Shen, YP; Yang, H	Naniangsu University, Scholar Pharm, Department Chinese Material Medicine and Pharm	People's R China	20	129	6.45	8
Weon, Jin Bae	Kangwon Natl University, Coll Biomed Science, Department Medicine Biomat Engineering	South Korea	18	100	5.56	6
Cai, Baochang	Nanjing Univ Chinese Medicine, State Minist Educ Standardizat Chinese Medicine Proc	People's R China	15	120	8	8
Jin, Song-Heng	Zhejiang Agr and Forestry Univ, Jiyang Coll, Zhuji 311800	People's R China	15	126	8.4	7
Lee, Byoungho	Kyunghee Naseul Korean Medicine Clin, Bucheon Si, Gyeonggi Do	South Korea	13	74	5.69	5
Kim, Hyungwoo	Pusan Natl Univ, Scholar Korean Medicine, Div Pharmacol, Yangsan, Gyeongnam	South Korea	12	52	4.33	4
Kumar, Arvind	Hemwati Nandan Bahuguna Garhwal Univ, Department Chem, POB 63, Srinagar	India	12	88	7.33	4
Wang, Jing	Beijing Univ Chinese Medicine, Chinese Medicine Inst, 11 N 3rd Ring Rd East, Beijing	People's R China	12	71	5.92	5
Cai, Hao	Nanjing Univ Chinese Medical, Engineering Res Centre	People's R China	11	87	7.91	6
Liu, Xu	Jingmen First Peoples Hosp, department Infect Dis, Jingmen 448000, Hubei	People's R China	11	74	6.73	5
Seo, Chang-Seob	Korea Inst Oriental Medicine, K Herb research Ctr, 1672 Yuseong Daero, Daejeon	South Korea.	11	68	6.18	5
Yun, Bo-Ra	Kangwon Natl University, Coll Biomed science, department Medicine BioMat Engn, Hyoja 2 dong	South Korea	11	60	5.45	5
Cao, Gang	Zhejiang Chinese Medicine university, Res Ctr TCM Proc Technol, Hangzhou, Zhejiang	People's R China	10	88	8.8	6
Lee, Jinho	Jaseng Medicine Fdn, Jaseng Spine and joint Res Inst, 858 Eonju Ro, Seoul	South Korea	10	40	4	4
Qin, Kunming	Nanjing University Chinese Medicine, Affiliated Hospital, Department Pharm, Nanjing, Jiangsu	People's R China	10	75	7.5	6
Shin, Hyeun-Kyoo	Korea Inst oriental medicine, K Herb Res Ctr, Daejeon	South Korea	10	68	6.8	5
Tiwari, Ashok Kumar	CSIR Indian Inst Chem Technol, Ctr Nat Prod and Tradit knowledge, Hyderabad	India	10	48	4.8	5
Wang, Yan	First Peoples Hospital Yunnan Prov, Department Endocrinol, Kunming 650032, Yunnan	People's R China	10	43	4.3	4
Ahmad, Aftab	King Abdulaziz University, Jeddah Community College	Saudi Arabia	9	35	3.89	4

CSIR: Council of scientific industrial research; TCM: Transitional care management; TP: Total publications; TC: Total citations; ACP: Average citation per paper

Table 6: Top twenty highly cited papers from of pharmacognosy magazine publications between 2011 and 2020

TC	Top twenty highly cited publications				
	Title	Authors	Year	Volume	Issue
116	Comparative study of rosmarinic acid content in some plants of Labiatae family	Shekarchi, Maryam, *et al.*	2012	8	29
61	The molecular basis of the antidiabetic action of quercetin in cultured skeletal muscle cells and hepatocytes	Eid, Hoda M, *et al.*	2015	11	41
58	Curcumin increases rat mesenchymal stem cell osteoblast differentiation but inhibits adipocyte differentiation	Gu, Qiaol, *et al.*	2012	8	31
56	Total phenolic distribution of juice, peel, and seed extracts of four pomegranate cultivars	Gozlekci, Sadiye, *et al.*	2011	7	26
54	Cytotoxicity of fucosterol containing fraction of marine algae against breast and colon carcinoma cell line	Khanavi, Mahnaz, *et al.*	2012	8	29
51	Phytochemical constituents and antioxidant activities of the whole leaf extract of *Aloe ferox* mill	Wintola, Olubunmi Abosede, *et al.*	2011	7	28
50	Formulation development, optimization and evaluation of aloe vera gel for wound healing	Khan, Abdul Wadood, *et al.*	2013	9	36
49	Quercetin induces human colon cancer cells apoptosis by inhibiting the nuclear factor-kappa B pathway	Zhang, Xiang-An, *et al.*	2015	11	42
49	Isolation and identification of phenolic compounds from *Gynura divaricata* leaves	Wan, Chunpeng, *et al.*	2011	7	26
49	Total polyphenolic (flavonoids) content and antioxidant capacity of different *Ziziphora clinopodioides* Lam. extracts	Tian, Shuge, *et al.*	2011	7	25
46	Chemical composition and antimicrobial activities of the essential oils from three ecotypes of *Zataria multiflora*	Zomorodian, K, *et al.*	2011	7	25
42	Spectrophotometric determination of the total flavonoid content in *Ocimum basilicum* L. (Lamiaceae) leaves	Lemos da Silva, *et al.*	2015	11	41
40	Honey induces apoptosis in renal cell carcinoma	Samarghandian, Saeed, *et al.*	2011	7	25
39	Bioactive extract from *Moringa oleifera* inhibits the pro-inflammatory mediators in lipopolysaccharide-stimulated macrophages	Fard, Masoumeh Tangestan, *et al.*	2015	11	44
38	Isolation of biologically active constituents from *Moringa peregrina* (Forssk.) Fiori. (family: Moringaceae) growing in Egypt	El-Alfy, Taha S, *et al.*	2011	7	26
37	Protective effects of onion-derived quercetin on glutamate-mediated hippocampal neuronal cell death	Yang, Eun-Ju, *et al.*	2013	9	36
37	Chemical composition, nutritional value, and antioxidant activities of eight mulberry cultivars from China	Liang, Linghong;, *et al.*	2012	8	31
36	Optimization of subcritical water extraction of polysaccharides from *Grifola frondosa* using response surface methodology	Yang, Liuqing, *et al.*	2013	9	34
35	Luteolin, a bioflavonoid inhibits azoxymethane-induced colon carcinogenesis: Involvement of iNOS and COX-2	Pandurangan, Ashok Kumar, *et al.*	2014	10	38
34	*In vitro* and *In vivo* antioxidant activity of flavonoid extracted from mulberry fruit (*Morus alba* L.)	Raman, Sivakumar Thasma, *et al.*	2016	12	46

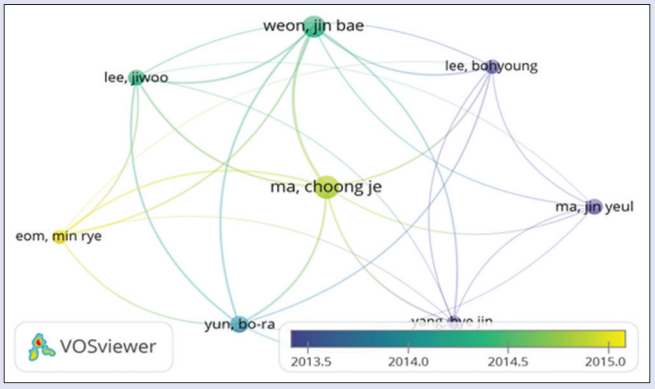


Figure 2: Top twenty highly productive authors

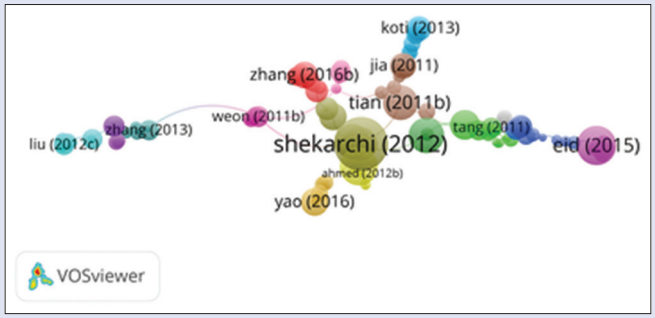


Figure 3: Top twenty highly cited papers

the most highly cited Pharmacognosy Magazine articles between 2011 and 2020. To locate the most influential articles published by Pharmacognosy Magazine, we ranked the articles with at least 20 highly cited papers [Figure 3 and Table 6]. "The article comparative study of rosmarinic acid content in some plants of Labiatae family"[20] is the most frequently cited article of Pharmacognosy Magazine with one hundred sixteen citations followed by (2) "The molecular basis of the ant diabetic action of quercetin in cultured skeletal muscle cells and hepatocytes"[21] with 61 citations, (3) "Curcumin increases rat mesenchymal stem cell osteoblast differentiation but inhibits adipocyte differentiation"[22] with 58 citations among the list of top 20 most cited Pharmacognosy Magazine.

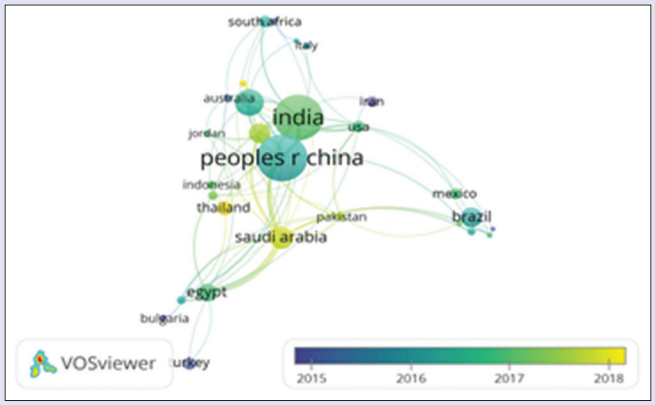


Figure 4: Top twenty most productive countries

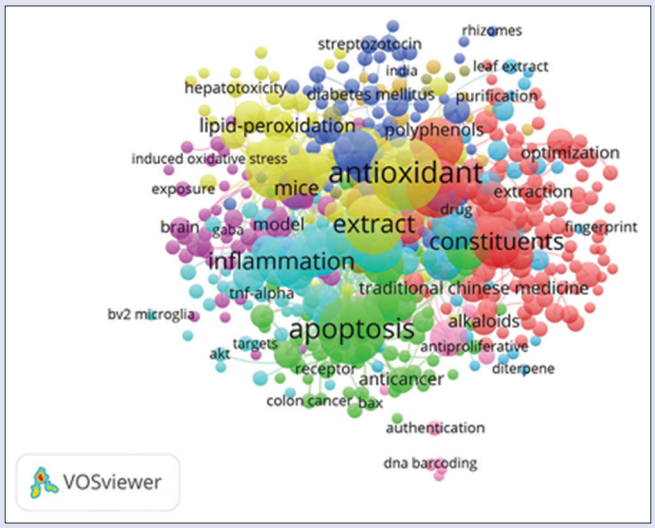


Figure 5: Most used keywords

Country collaboration

The global publication share of the top 20 most productive countries in Pharmacognosy Magazine publications between 2011 and 2020 is shown in Table 6 and Figure 4. People's R China tops the list, with a share of 30.254%, followed by India ranks second with 28.38% share, South Korea (9.438%), Saudi Arabia (6.359%), Brazil (5.422%), Malaysia (5.355%), and Egypt (4.418%).

Keyword's analysis

Figure 5 indicates the analysis of the most frequently used keywords during the years 2011–2020. The 7346 unique keywords used during the study period. Figure 5 shows that the font size and background color yellow represent the highest numbers of keywords occurrence similarly, the word "antioxidant" with 199 time, "apoptosis" with 177 time, and "extract" with 134 and got third position, respectively.

CONCLUSION

The conclusion of this paper can be very use for policymakers of Pharmacognosy Magazine to encourage the journal activities. The scientometric analysis, presented here, has calculated all the published documents in Pharmacognosy Magazine over a period of 10 years (2011–2020). This analysis reveals the journal metrics, which can be important for the authors when submitting an article to Pharmacognosy Magazine. Scientometric studies calculated in this journal highlight the bibliometric measures to characterize the publication productivity and citation count. The highest number of papers published in the year 2017 with 234 publications. Ma, Choong Je is the leading author from Kangwon National University, Institute of Bioscience and Biotech., Chunchon (South Korea). has been producing highest number of the articles as compared to others. People's R China is the topmost productive country, and CSIR, India, is the topmost productive institution, it was also noted that most citations received from the paper Comparative study of rosmarinic acid content in some plants of Labiatae family by Shekarchi, Maryam, *et al*. with 116 citations. The keywords analysis revealed that words such as "antioxidant," "apoptosis," and "extract" were mostly used in published papers. These papers from of Pharmacognosy Magazine publications between 2011 and 2020. However, more article types are recommended for the improvement of citations in Pharmacogn Mag.

Table 7: Top twenty most productive countries

Countries/ regions	TP	Percentage of 1494	TC	ACP	h-index
People's R China	452	30.254	2953	6.53	21
India	424	28.38	1854	4.37	19
South Korea	141	9.438	726	5.15	13
Saudi Arabia	95	6.359	356	3.75	10
Brazil	81	5.422	446	5.51	10
Malaysia	80	5.355	327	4.09	10
Egypt	66	4.418	405	6.14	10
Thailand	42	2.811	131	312	8
Turkey	33	2.209	303	9.18	10
USA	30	2.008	116	3.87	6
South Africa	29	1.941	249	8.59	9
Iran	26	1.74	554	21.31	14
Mexico	26	1.74	120	4.62	7
Japan	18	1.205	54	3	5
Germany	14	0.937	92	6.57	5
Indonesia	14	0.937	41	2.93	4
Pakistan	14	0.937	73	5.21	4
Australia	13	0.87	94	7.23	6
Bulgaria	12	0.803	110	9.17	7
France	12	0.803	47	3.92	4

TP: Total publications; TC: Total citations; ACP: Average citation per paper

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

REFERENCES

1. Marisha. Scientometric Analysis of Current Science. Curr Sci. 2019;117:190-7. doi: 10.18520/cs/v117/i2/190-197.
2. Chaman Sab M, Kappi M, Bagalkoti V, Biradar BS. Indian journal of marketing: A bibliometric analysis. Indian J Mark 2020;50:55-64.
3. Nishy P, Parvatharajan P, Prathap G. Visibility and impact of the Indian journal of chemistry, section B during 2005-2009 using scientometric techniques. Indian J Chem Sect B Org Med Chem 2012;51B: 269-84.
4. Kappi M, Biradar BS, Chaman Sab M. Current science: Bibliometric visualization based on SCOPUS database. Kelpro Bull 2020;24:11-30.
5. Nabeesab Mamdapur GM, Hadagali GS, Verma MK, Kaddipujar MD. A Scientometric Analysis of " Flavour and Fragrance Journal " Indexed In Scopus during 2000-2019. Int J Inf Dissem Technol 2020;10:211-8.
6. Kulkarni AP, Poshett B, Narwade GR. Indian Journal of Pharmaceutical Education and

Research (1996-2006) – A bibliometric analysis. Ann Lib Inform Stud 2009;56:242-8.

7. Pathak M. Indian journal of pharmaceutical education and research: A scientometric analysis. Ind J Pharm Edu Res 2020;54:264-70.
8. Asadi H, Mostafavi E. The productivity and characteristics of Iranian biomedical journal: A scientometric analysis. Iran Biomed J 2018;22:362-6.
9. Kamdem JP, Duarte AE, Lima KR, Rocha JB, Hassan W, Barros LM, *et al*. Research trends in food chemistry: A bibliometric review of its 40 years anniversary (1976–2016). Food Chem 2019;294:448-57.
10. Groos OV, Pritchard A. Documentation notes. J Doc 1969;25:344-9.
11. Hota PK, Subramanian B, Narayanamurthy G. Mapping the intellectual structure of social entrepreneurship research: A citation/co-citation analysis. J Bus Ethics 2020;166:89-114.
12. Bar-Ilan J. Informetrics at the beginning of the 21st century – A review. J Informetr 2008;2:1-52.
13. Hoffman DL, Holbrook MB. The intellectual structure of consumer research: A bibliometric study of author cocitations in the first 15 years of the journal of consumer research. J Consum Res 1993;19:505.
14. Zinkhan GM, Leigh TW. Assessing the quality ranking of the journal of advertising, 1986-1997. J Advert 1999;28:51-70.
15. Mulet-Forteza C, Martorell-Cunill O, Merigó JM, Genovart-Balaguer J, Mauleon-Mendez E. Twenty five years of the Journal of Travel and Tourism Marketing: A bibliometric ranking. J Travel Tour Mark 2018;35:1201-21.
16. Svenson G. SSCI and its impact factors: A "prisoner's dilemma"? Eur J Mark 2010;44:23-33.
17. Subramanyam K. Bibliometric studies of research collaboration: A review. J Inf Sci 1983;6:33-8.
18. Mueen Ahmed K. Top cited articles from Pharmacogn. Mag in 2012. Pharmacogn Mag 2013;9:1-3.
19. Tsay MY. Citation analysis of Ted Nelson's works and his influence on hypertext concept. Scientometrics 2009;79:451-72.
20. Shekarchi M, Hajimehdipoor H, Saeidnia S, Gohari AR, Hamedani MP. Comparative study of rosmarinic acid content in some plants of Labiatae family. Pharmacogn Mag 2012;8:37-41.
21. Eid HM, Nachar A, Thong F, Sweeney G, Haddad PS. The molecular basis of the antidiabetic action of quercetin in cultured skeletal muscle cells and hepatocytes. Pharmacogn Mag 2015;11:74-81.
22. Gu Q, Cai Y, Huang C, Shi Q, Yang H. Curcumin increases rat mesenchymal stem cell osteoblast differentiation but inhibits adipocyte differentiation. Pharmacogn Mag 2012;8:202-8.