



Saudi Journal of Medicine & Medical Sciences (SJMMMS): A 7 -year bibliometric study

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Abstract:

Objective: This study appoint to evaluate the published articles in Saudi Journal of Medicine & Medical Sciences (SJMMMS) that issued from Imam Abdulrahman Bin Faisal University – Saudi Arabia.

Study Methodology: The data has been collected from the Journal website and analyze accordingly to bibliometric changes in to bibliometric approach that followed for the year period (2020- 2013).

The total published articles (389), four sorts was selected from the total, which contain (ORIGINAL ARTICLES), (REVIEW ARTICLES), (INVITED ARTICLE).

(CASE REPORT),total number act (288) considered the study sample.

Results: The minimum total articles per year (20) 2013, and 2015 the published articles (48) as maximum percentage 7% , 17% distributing among (48) references in 2014 by rate of (24.5%) as max percentage record(2) in 2020 rate of (1%) ,theindividual authorship contributed higher percentage(22.22%) by total (64) articles , the arrangement of authors accordingly to geographical directions (99) articles (34.37%) share by Medicine Collage authors in Imam Abdulrahman Bin Faisal University – Kingdom of Saudi Arabia , and contribution of authors in King Fahad University Hospital (59) articles (20.48%) , likewise there are so many articles contributions from Saudi Universities Medicines Collages (52) percentage of (18.05 %), then India share with (32) articles (11%) and represents first, second, and fourth respectively category , the more Establishment productivity is Price Mohammed for researches and consultant studies Center followed by Imam Abdulrahman Bin Faisal University in Damam , then Medicine Collage in Kashmir – India , the more subjects products Internal Medicine (11.8%) and followed by Dental (10.4%) and lastly oncology (9.05%)

The total various published information vessels sources (5073) in total articles (4794) as higher percentage (94.5% followed by electronic sites (1.9%) then books in third category (1.8%) and finally the information sources (0.36%).

Conclusion: There is increasing in papers of published copy through last eight years, the Medicine Collage and King Fahad University Hospital considered as samples of study and represented the original published articles.

Keywords: Saudi Journal of Medicine & Medical Sciences (SJMMMS)

I. INTRODUCTION

Imam Abdulrahman Bin Faisal University is situated in the Eastern Province, Saudi Arabia Kingdom Imam Abdul Rahman bin Faisal University includes six different medical colleges, namely the Faculty of Medicine, the Faculty of Dentistry, the Faculty of Nursing, the Faculty of Applied Medical Sciences, the Faculty of Clinical Pharmacy, and the College of Public Health, in addition to the colleges in various other disciplines. The first batch of students was enrolled in 1975. and that time university was named king Faisal.

Saudi Journal of Medicine & Medical Sciences (SJMMMS). is the official scientific journal of Imam Abdulrahman Bin Faisal University. It is an international peer-reviewed medical journal. The first edition of (SJMMMS) was launched in 2013

The aim of this study was to conduct a bibliometric evaluation of the Journal of Saudi Journal of Medicine & Medical Sciences (SJMMMS).

The objectives of this study were to find out: the quantitative growth of articles by volume and year; number and percentage of articles by year; distribution of citation by volume and year; range and percentage of citation per article; authorship pattern of articles; authorship productivity; ranking of the most prolific contributors; ranking of authors by geographical affiliation; ranking by the subject of the article; the journal self-citations in an article; the citation pattern; and ranking of authors by institutional affiliation.

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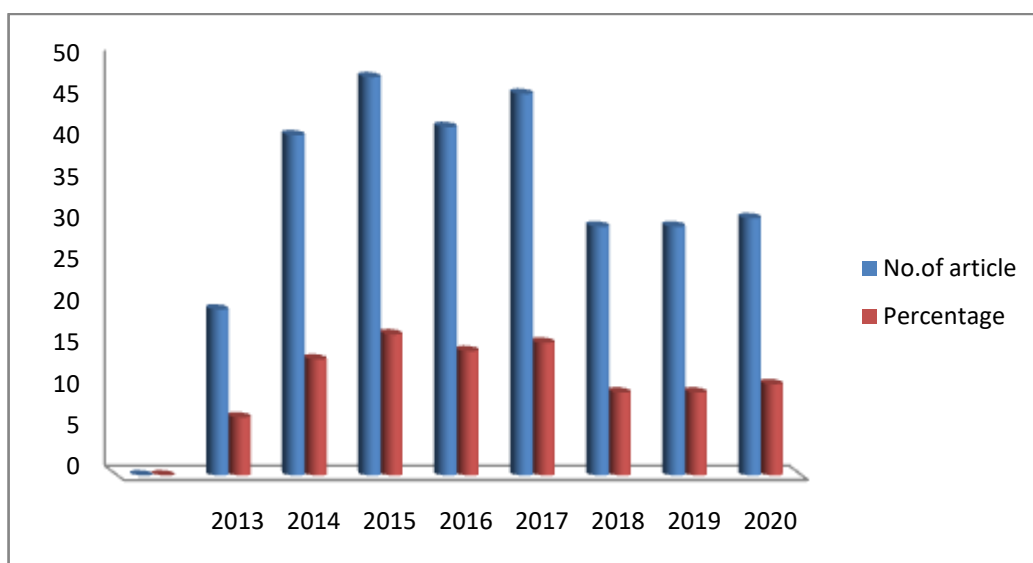
number and percentage of articles by year; distribution of citation by volume and year; range and percentage of citation per article; authorship pattern of articles; authorship productivity; ranking of the most prolific contributors; ranking of authors by geographical affiliation; ranking by the subject of the article; the journal self-citations in an article; the citation pattern; and ranking of authors by institutional affiliation

II. METHODOLOGY: (ANALYSIS OF STUDY RESULTS)

The total published articles (389), four sorts was selected from the total, which contain (ORIGINAL ARTICLES), (REVIEW ARTICLES), (INVITED ARTICLE)

In addition, the (INVITED ARTICLE) furthermore the case report, (288) represented the study sample, (140) articles original and (26) articles reviewed , (111) reported , (11) invited the total articles are (389) published in (SJMMMS) among 7 years(2013 – 2020) and the refusal articles (10).

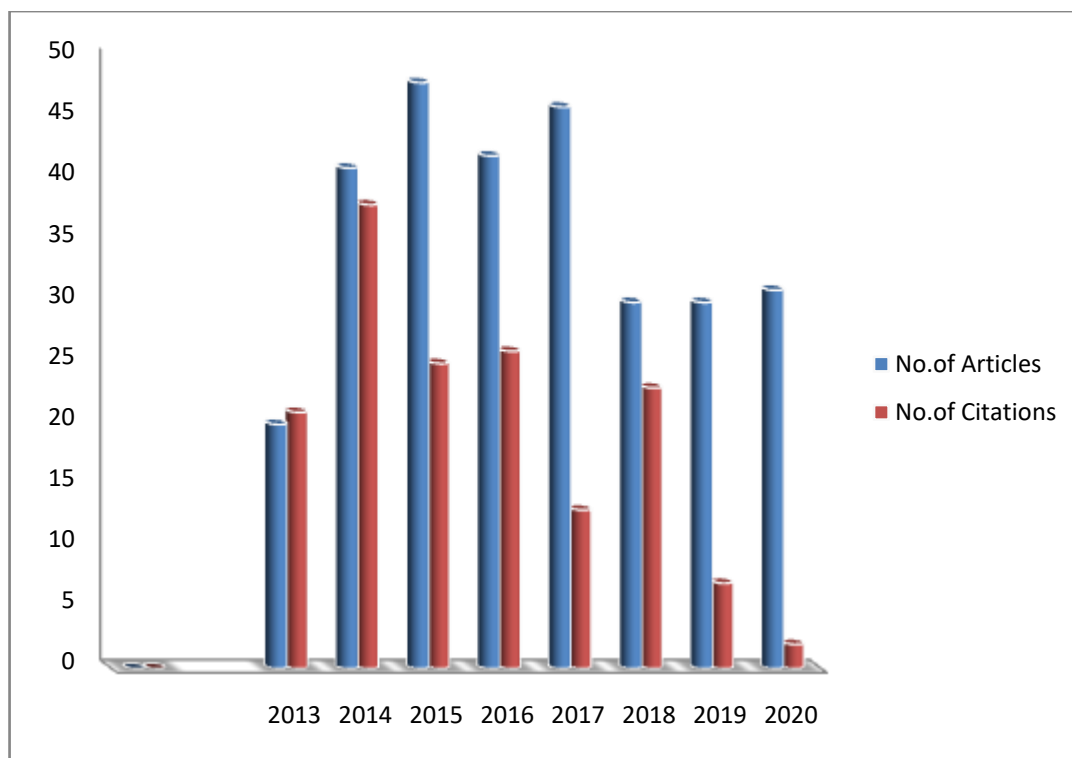
The bellow table illustrated the number and percentage of articles per year:



Figure(1)

The above form illustrated the number and percentage of articles per year:

Show the total articles published per year (288) in (8) years (2013- 2020) the period of study, there is fluctuation in published articles volume as it reached in higher through a year of (2015) in total (48) percent (17%) followed by (2017) (46) articles (16%), the published articles through study period (20-48). It also notes the total published articles first volume 2015 and the third 2014.



Figure(2) show the annual volume distribution:

Table (2) shows the volume distribution contains (288) articles a cross – (155) references and also clear the annual (2- 38) and the (38) maximum year (2014) and lower (2) Refs in 2020

Table (1): Distribution of citations by volume

Year	No. Of Articles	Volumes			No. of Citations	Average No. Of citations per Article
		1	2	3		
2013	20	12	9		21	14%
2014	41	12	6	20	38	24.5%
2015	48	7	11	7	25	16%
2016	42	14	4	8	26	17%
2017	46	7	0	6	13	8 %
2018	30	8	10	5	23	15%
2019	30	2	5	0	7	4.5%
2020	31	2	0	0	2	1%
Total	288	64	45	46	155	100%

Table(2) show the percentage in one article:

No of citation Per Article	No. Of Articles	Percentage
1-10	61	21%

11-20	46	16%
21-30	140	49%
31-40	41	14%
Total	288	100%

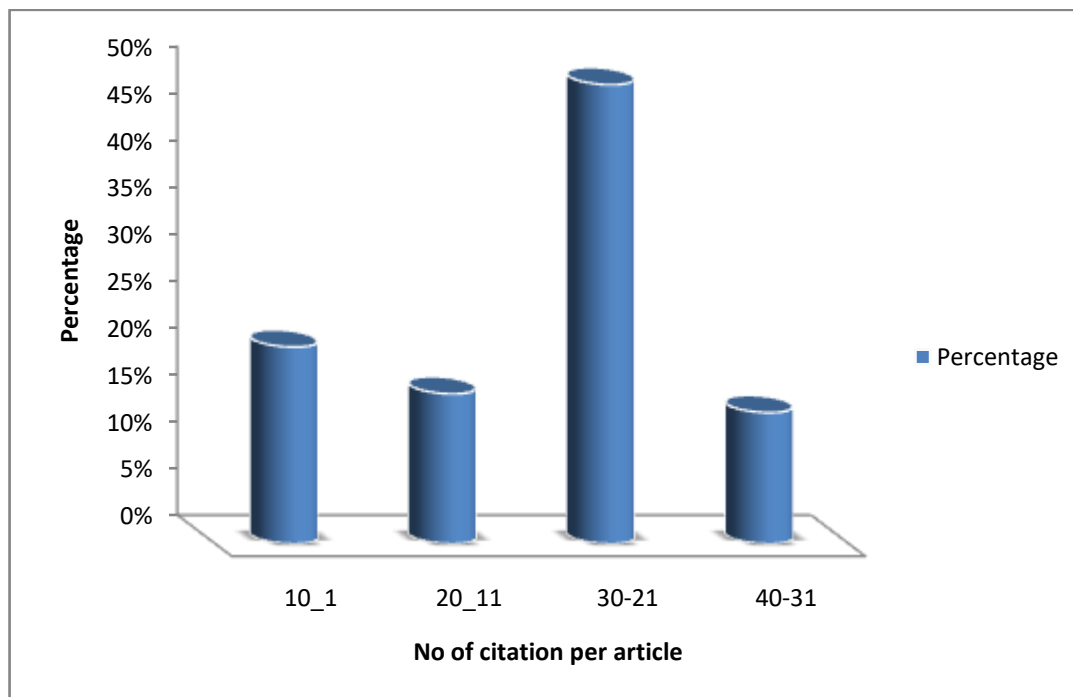


Figure (3) show the percentage in one article:

Ref. percentage of each citations and their extend in article:

Table(2) appoint to vicinity of citations for each article and whereas (140) articles with percentage(49%) included citations between(30-21) followed by (61) articles with percentage (21%) with (10-1) citations , (46) articles percentage (16%) between ((20-11) citation for each article and lastly (41) articles with percentage (14%) the citation between (40-31).

Table (3) : Authorship pattern

Year	Single authors	Tow author	Three authors	Four authors	Five authors	Six authors	More Than Six authors	Total
2013	7	3	4	3	2	2	2	23
2014	9	2	4	2	3	2	1	23
2015	11	9	11	8	5	2	2	48
2016	8	8	7	11	6	2	2	44
2017	11	10	7	13	3	4	2	50
2018	4	5	5	7	2	4	4	31
2019	9	6	5	6	2	3	3	34
2020	5	7	3	5	4	4	7	35
Total	64	50	46	55	27	23	23	288
Percentage %	22.22	17.36	15.97	19.09	9.37	7.98	7.98	100

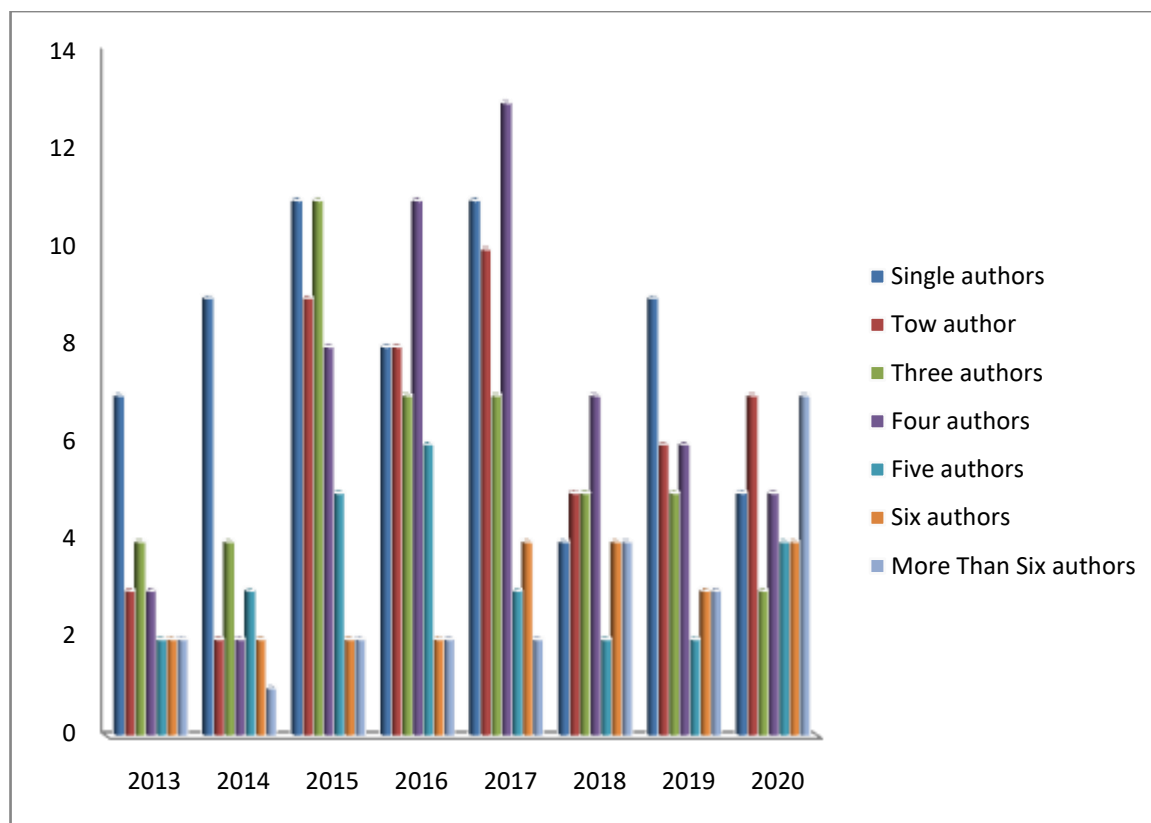


Table (3) authorship pattern:

Table 4 reveals cyclic authoring articles and the authors contributes became(64) articles by percentage (22.22%) which ranked first, the four authors contribute (55) articles by percentage (19.09%) and two authors (50) articles percentage(17.36%) in (2017) we note the percentage of share authors comparing with a year 2014 and also decreasing in 2018,

Table (4) : Ranking of authors by geographical affiliation

Rank	Countries	Frequency	Percentage
1.	College of Medicine, University of Dammam, Saudi Arabia	99	34.37
2.	King Fahd Hospital of the University, Al-Khobar, Kingdom of Saudi Arabia	59	20.48
3.	Saudi Arabia (University of Dammam, King Fahd Hospital of the University, Noura Bint Abdul Rehman University , King Khalid University Hospital, jazan,TaifUniversity, , King Saud University, King Abdul Aziz Hospital, Makkah, Umm Al-Qura University,Taibah University, Al Madina , Majmaah University).	52	18.05
4.	India	32	11.11
5.	Nieria	12	4.16
6.	Sudan	7	2.43
7.	5 countries (Oman, , Qatar, Bahrain,Dubai, Morocco, <u>Egypt</u>).	2 each	4.16
8.	2 countries (Canada, Turkey)	3 each	2.08
9.	Six Countries, (Netherlands, Tucson, Arizona, USA, Islamabad, Pakistan,Shifa,, Spain, China)	1 each	3.12
Total	17 Countries	288	% 100

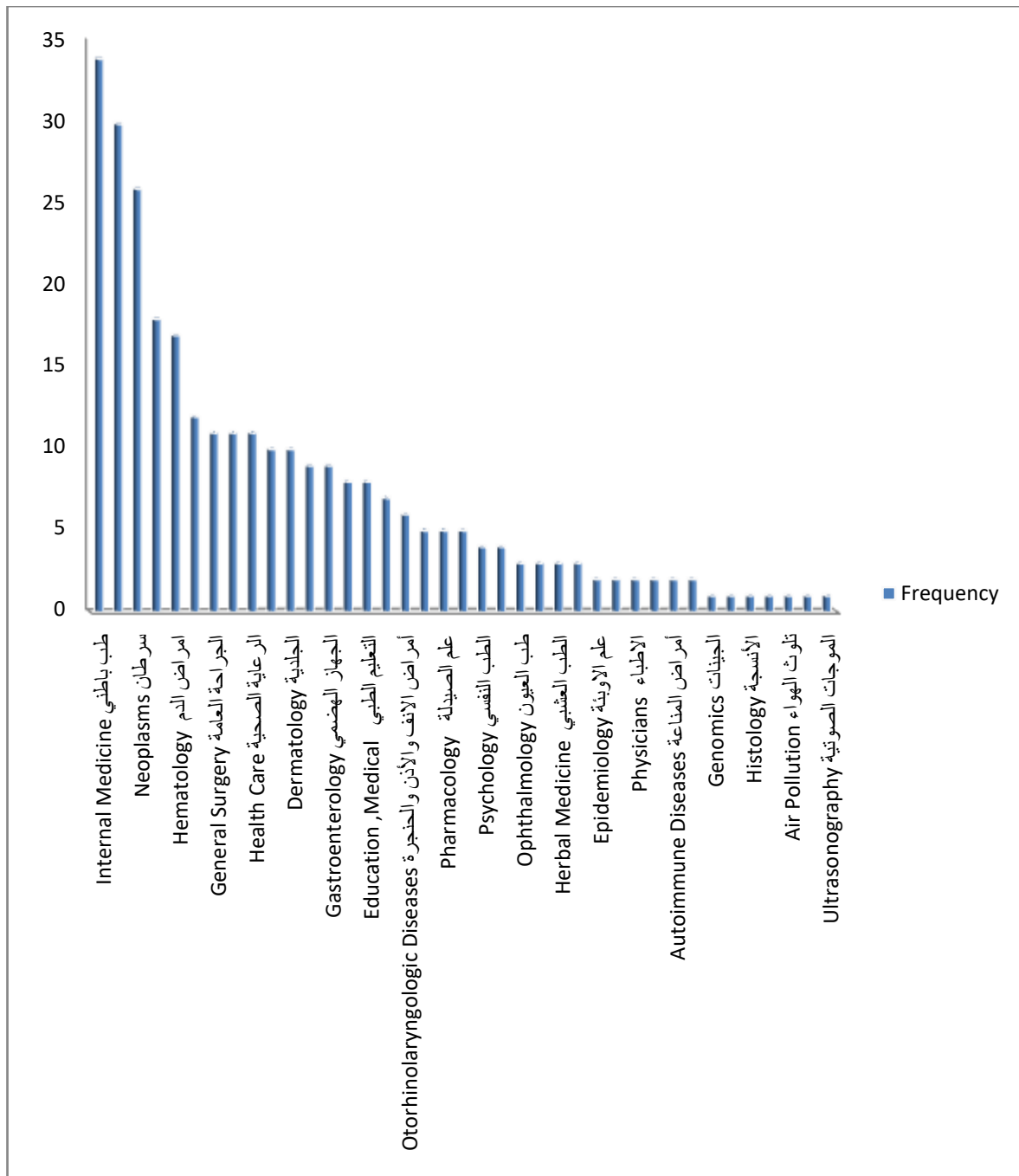
Authors arranging according to their geography direction

Table classify (5) authors as example represent (288) of published articles we note (99) articles, the authors from Medicine Collage in Imam Abdulrahman Bin Faisal University, followed by King Fahad Hospital authors (59) articles in percentage of (20.48%) and so many Saudi Medicine Collage contributes with (52) articles with (18.05%), and followed by India which contributes with (32) articles with percentage (11%) and represent the first, second, third, fourth, periodically, and there are so many authors from Nigeria, Sudanese, Oman, Bahrain , Qatar, Dubai, Morocco, Egypt, contributes with (2) articles from each, and (Canada, Turkish) three from each, (Neozelanda, Arizona, USA, Islam Abad, Sweden, Spain, China) one article for each.

جدول رقم (6) يوضح الترتيب وفقا للموضوعات

Ranking by subject			
Rank	Subject	Frequency	Percentage
1	Internal Medicine طب باطني	34	11.8%
2	Dentistry طب اسنان	30	10.4%
3	Neoplasms سرطان	26	9.0%
4	Pediatrics طب الاطفال	18	6.3%
5	Hematology امراض الدم	17	5.9%
6	Cardiovascular Diseases امراض القلب والشرايين	12	4.2%
7	General Surgery الجراحة العامة	11	3.8%
8	Infections الأمراض المعدية	11	3.8%
9	Health Care الرعاية الصحية	11	3.8%
10	obstetrics and gynecology نساء وتوليد	10	3.5%
11	Dermatology الجلدية	10	3.5%
12	Nephrology الكلى	9	3.1%
13	Gastroenterology الجهاز الهضمي	9	3.1%
14	Mental Health الصحة العقلية	8	2.8%
15	Education, Medical التعليم الطبي	8	2.8%
16	Pathology علم الامراض	7	2.4%
17	Otorhinolaryngologic Diseases أمراض الاذن والاذن والحنجرة	6	2.1%
18	Wounds and Injuries الاصابات والحوادث	5	1.7%
19	Pharmacology علم الصيدلة	5	1.7%
20	Neurology طب الأعصاب	5	1.7%
21	Psychology الطب النفسي	4	1.4%
22	Therapy العلاج	4	1.4%
23	Ophthalmology طب العيون	3	1.0%
24	Microbiology الأحياء الدقيقة	3	1.0%
25	Herbal Medicine الطب العشبي	3	1.0%
26	Nervous System Diseases امراض الجهاز العصبي	3	1.0%
27	Epidemiology علم الاوبئة	2	0.7%
28	Pharmaceutical Services الخدمات الصيدلانية	2	0.7%
29	Physicians الاطباء	2	0.7%
30	Urology أمراض المسالك البولية	2	0.7%
31	Autoimmune Diseases أمراض المناعة	2	0.7%
32	Pharmacists الصيادلة	2	0.7%

33	Genomics الجينات	1	0.3%
34	Radiology الأشعة	1	0.3%
35	Histology الأنسجة	1	0.3%
36	Nurses الممرضات	1	0.3%
37	Air Pollution تلوث الهواء	1	0.3%
38	Complementary Therapies العلاج التكميلي	1	0.3%
39	Ultrasonography الموجات الصوتية	1	0.3%
Total		288	100.0%



Ranking by subject

Table (6) arrange tables according to (39) subjects from (288) articles with assist of American National Medicine Library, modern edition in 2021, whereas the Internal Medicine first with (34) articles and percentage (11.8%) then Dental (30) articles (10.4%) , oncological diseases (26) articles percentage (9.0%)

Children Medicine (18) articles and (6.3%) , blood diseases(17) with percentage(5.9%), arterial diseases(12) articles (4.2%) , general surgery, infection , health care all have (11) articles (3.8%) , obstetrics and gynecology and dermatology all have (10) articles percentage(3.5%) followed by kidney disease and digestive system disease (9) articles (3.1%) , mental health and medical education (8) articles (2.8%) , pathology (7) articles (2.4%), ear, nose and throat disease(6) articles (2.1%) followed by injuries and accidents, pharmacology and neurology (5) articles (1.7%), psychiatric (4) articles (1.4%), ophthalmology, microbiology and folk medicine and nevus system disease(3) articles(1.0%) and there are six subjects represented and submit (2) articles for each one (epidemiology, pharmaceutical service,

urology, immunology ,and pharmacology) percentage (0.7%) but there were (7) subjects represents only (1) article (genes and x-rays, pathogens, tissues, air pollution, complementary therapy, and ultrasound) with percentage (0.3%).

Distribution of citations according to bibliographic forms

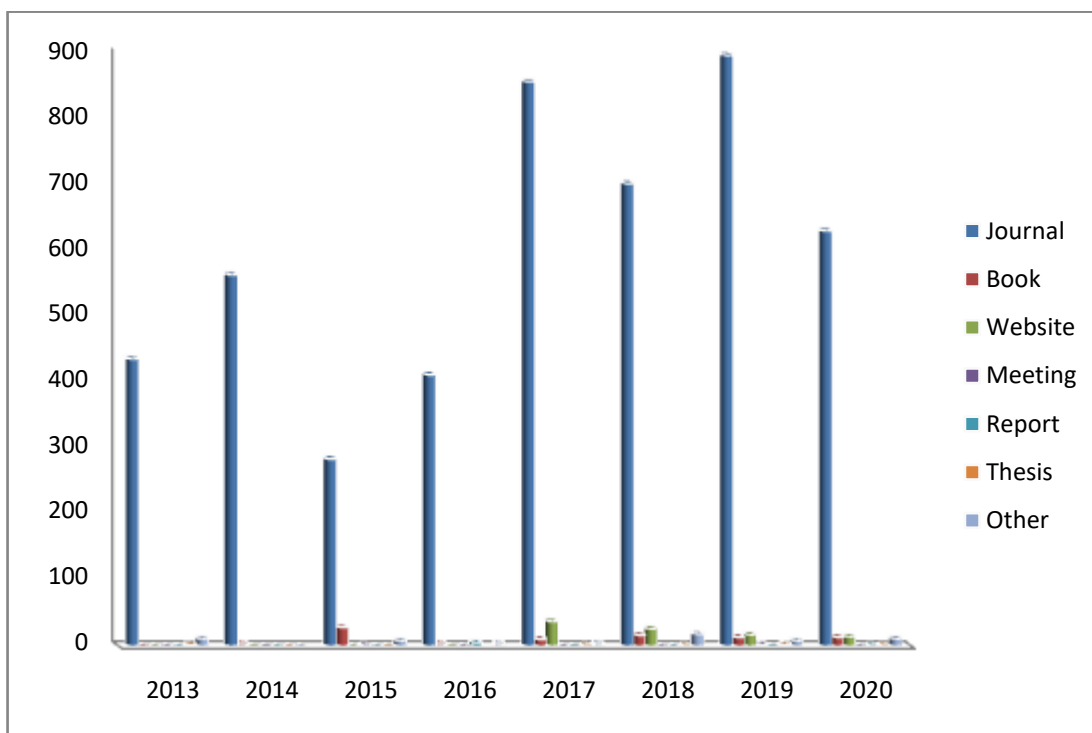


Table 5: shows the distribution of reference citations according to the form of the bibliography:

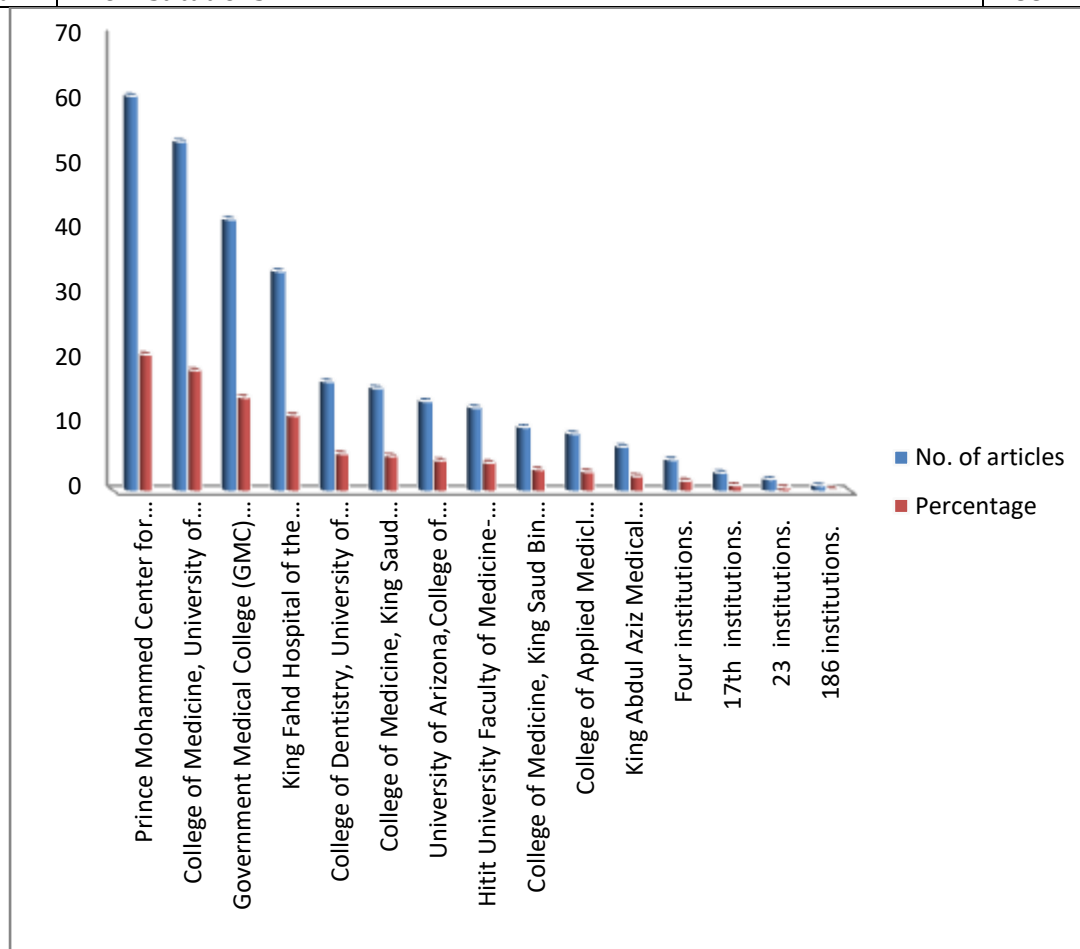
Table 5 shows the sample of study, the total citations from various of information's direction(5073) citations.

Type \ Ref. Year	Journal	Book	Website	Meeting	Report	Thesis	Other	Total	Percentage
2013	437					2	12	451	9%
2014	565	4						569	11%
2015	285	29		1			9	324	6%
2016	413	4			6		4	427	8%
2017	859	11	38		0	1	4	913	18%
2018	704	17	27			1	19	768	15%
2019	899	14	18	3		3	9	946	19%
2020	632	14	15	0	1	1	12	675	13%
Total	4794	93	98	4	7	8	69	5073	100%
Percentage	94.5%	1.8%	1.9%	0.07	0.13	0.15	0.36	100%	

The periodical articles (4794) citations, by percentage (94.5%), followed by the electronic webs, (1.9%), then books comes third (1.8%), followed by information sources (0.36%), and the these (0.15%) followed by reports (0.13%), and the interview (0.07%) and the table obviously talk about the reducing the citation of reports and there are no articles published in between (2014 – 2015).

Table 6: Ranking of most productive institution

Rank	Institution	No. of articles	Percentage
1	Prince Mohammed Center for Research and Consultation Studies	61	21.18
2	College of Medicine, University of Dammam- Saudi Arabia	54	18.75
3	Government Medical College (GMC) - Kashmir, India	42	14.58
4	King Fahd Hospital of the University, Al-Khobar- Saudi Arabia.	34	11.80
5	College of Dentistry, University of Dammam- Saudi Arabia	17	5.90
6	College of Medicine, King Saud University - Riyadh - Saudi Arabia	16	5.55
7	University of Arizona,College of Medicine and College of Public Health-Tucson,Arizona, USA	14	4.86
8	Hitit University Faculty of Medicine- Çorum,Turkey	13	4.51
9	College of Medicine, King Saud Bin Abdulaziz University for Health Sciences-Riyadh,Saudi Arabia	10	3.47
10	College of Applied Medicl sciences, University of Dammam	9	3.12
11	King Abdul Aziz Medical City, National Guard Hospital- Jeddah, Saudi Arabia	7	2.43
12	Four institutions.	5	1.73
15	17th institutions.	3	1.04
16	23 institutions.	2	0.69
17	186 institutions.	1	0.34
Total	246 institutions.	288	100



Ranking of most productive institution

Ranking of the most productive institution:

table (8) shows the most influence institution productive, Prince Mohammed consultant study & researches center more productive (61) authors (21.18%) , followed by Imam Abdurrahman University college of medicine(54) authors (18.75%), followed by Kashmir Medicine College (42) authors (14.58%) and King Fahd University Hospital (34) (11.80%)and lastly one author from (168 institutes).

III. THE MOST INFLUENCE RESULTS:

- Providing one of most important published in medicine articles by Imam Abdurrahman Bin Faisal in Kingdom of Saudi Arabia.
- The results appointed to the books importance as science connection methodology and which reduce by (1.8%).
- The (SJMMMS) one of periodical medicine magazine that available in Imam Abdurrahman University Web.
- The individual authorship considered most popularizing (64) articles (22.22%).
- The most productive institute that Medicine College followed by King Fahd University Hospital and Imam Abdurrahman Bin Faisal in Dammam – Saudi Arabia.
- There were (5073) citations in (SJMMMS) (94.5%) followed by electronic webs (1.9%) and books comes in third place (1.8%)

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