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Employing bibliometric analysis on research published in Pakistan Journal of Medical and Health Sciences from 2019 – 2009.

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Employing bibliometric analysis on research published in Pakistan Journal of Medical and Health Sciences from 2019 – 2009.

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Abstract:

Introduction: Pakistan Journal of Medical and Health Sciences is peer review and indexed in the Scopus-Elsevier database. This study signifies the participation of (PJMHS) in the research productivity, published from 2019 - 2009.

Material and Methods: The records of the published data retrieved from PJMHS website and Scopus-Elsevier database for tabulation in MS Office Excel Sheet. Frequency of publications, type of documents, usage of pages, citations, and association of the first author with their countries.

Results: Total 3817 documents written by 15401 (4%) authors in seven categories published in 43 issues. An average of (2.8%) pages consumed with getting of 896 (23.4%) citations in publications. Collaboration of three authors contributed 1339 (36.6%) documents and got first slot, and four authors 3344 (21.7%) added 836 (22%) of documents. The first authors affiliated with 29 countries around the globe participated in publications; Pakistan with 3484 (91%), Iran 79 (2%), Indonesia 77 (2%), and Kingdom of Saudi Arabia 65 (1.7%) stand on top places.

Conclusion: Pakistan Journal of Medical and Health Sciences (PJMHS) is a peer-reviewed journal published continuously and facilitates research communities of medical and health sciences to get their attention in sharing ideas on a reciprocal basis from similar specialties or sub-specialties of common disciplines.

Key words: Bibliometric, Pakistan Journal of Medical and Health Sciences, Pakistan, medical education and research.

Introduction and literature review:

Journals or academic journals perform confronted roles among the researcher's situations, quality of the paper, and journal reputation through assessment, measuring the sub-fields of research, language hurdles, unfamiliarity with a system of standards, and of-course academic writings ^{1,2}. Holowchak, M.A. (2018) elaborates the power of education with words that a person can acquire knowledge as per their needs from basics to a higher level, intellectually and morally, from schools to university ³. Bohrer, T. et al. (2018), explain the necessity of education in medical and health sciences. According to them, medical education is treated with; scientific approach, ethics, and systemic analysis of medicinal knowledge theoretical and practical ⁴. Medical education provides lead to improve expertise and high-value skills in the betterment of society via the utilization of competencies with understandings towards preparedness of patient-related systems, and the transformation of correct and right knowledge for incorporating quality health communications ^{5,6}.

Health communication works as a bridge to fill the gap between practitioners and laboratory scientists. This communication engages health professionals with day-to-day information about innovations in the research of medical and health sciences field ⁷. Researchers of medical and health professions aligning the needs, priorities, and plans as an integrated part to design the curricula athwart all four years. Gonzalo, J.D. et al. approach to students of the first year to the fourth year to identify the perceptions and receptivity of students about the science education of health system; in the end, they reach on that; if students accelerate the process of exploring, which evolve the professional identity ⁸. Chaudhary, N. et al. conducted a structured survey among the 1029 participants of students and faculty of two departments of Khawaja Muhammad Safdar Medical College, Sialkot, Pakistan.

The research concluded with words that declined medical education linked with multifactorial reasons and shows dissatisfaction with the quality of medical education in Pakistan ⁹. Babin, B.J., Moulard, J.G. (2018) highlighted the value of any academic

journal's peer-review process. According to their opinions, that authors of a manuscript already involve in editing, reviewing, writing of their ideas, but before publishing, the peer reviewer working as a gatekeeper to check the concepts, words, elegances and polishes the sketch of the article before publications and circulations in academic world¹⁰.

Meanwhile, LaPlaca, P. et al. (2018) discussed and placed their suggestions to authors to understand the rejection ratio from 80% to 95% as a problem faced by the editorial staff of the academic journal. Lack of focus on the research question, improper settings of references, the gap in supportive knowledge, and shortage of materials in convincing to the reader are reasons^{11,12}. Strielkowski, W., Gryshova, I. (2018) convince researchers that submissions of writings in prestigious journals impact the trustworthiness of author and institutional rankings because of an affiliation of the journal with worthiness databases prove the credibility of research¹³.

French, A. (2020) paid attention to the use of academic writings on graduate levels and professional papers or scholarly essays chalked-out by individuals or in collaborative manners considered professionally in higher education for their professional identity¹⁴. Kozak, M. (2020) supports too many researchers in changing academic writing scenarios from clumsy, unclear, and inefficient to pleasurable visualization of research aims through different interpretations of tables and graphs¹⁵. Writing research is composite work to transmit innovative information or an idea of any specific field of a subject, incline, or decline in specialization through the literature published in an academic journal¹⁶.

In bibliometric research, the researcher can investigate the authors' involvement, sponsoring institutes, areas of study by specific or compound word, and collaboration of authors with each academic arena nationally or internationally. For example, the researcher conducted bibliometric analysis on publications published under titled; a) venous thromboembolism in children, b) exploring the scientific interest for olive oil origin, c) assessing clinical embryology research, d) publications on in doped ZnO, and e) scientific collaboration across time and space^{17,18,19,20, & 21}

Material & Methods: The research data retrieved in August 2020, at the library, College of Applied Medical Sciences King Abdulaziz University for Health Sciences, Riyadh Saudi Arabia on Comma-separated values (CSV) and text file from the respective website of Pakistan Journal of Medical and Health Sciences (<https://pjmhsonline.com/>) and Scopus-Elsevier Database for tabulated in MS Office Excel sheet. Following objectives were set to investigate:

1. To explore year and issue wise published documents;
 - a) Year wise involvement of authors in publications.
 - b) Use of pages in each issue.
 - c) Getting citations in each issue.
2. Year wise patterns ship of authors.
3. Affiliation of first author with countries.

Results: The seven categories of documents published in the Pakistan Journal of Medical and Health Sciences from 2019 – 2009, articles 3732, review 40, editorials 32, note 5, letters 4, conference papers 2, and erratum 2. **Figure 1** and Table 1 show the Pakistan Journal of Medical and Health Sciences' exhaustive publication image from 2019- 2009. There are 3817 documents published in 43 (88.7%) issues in these eleven years, with an annual average of 347 documents. A total of 15401 authors involve in writing manuscripts and an average of four authors in each document. Interestingly, a maximum of 170 articles published in 2018, issue 4, and a minimum of 18 articles published in the year 2010 issue 1. The year 2018 published 634 with an average of (158.5%) articles as maximum, and 102 (34%) articles as a minimum in the year 2009.

The study shows the consumption of 10701 (2.8%) pages per document. The research productivity got 896 (23.4%) citations per document; 01 document got 12 citations, 03 documents got 09 citations, 02 documents got 07 citations, 3 documents got 06 citations, 7 documents got 05 citations, 16 documents got 04 citations, 41 documents got 03 citations, 137 documents got 02 citations, and 329 documents got one citations. It seems

fluctuations in the PJMHS, the 9.6% ratio of was higher in the year 2018 than 2019. However, the publication ratio increased by 81.7% in eleven years from 2009 – 2019.

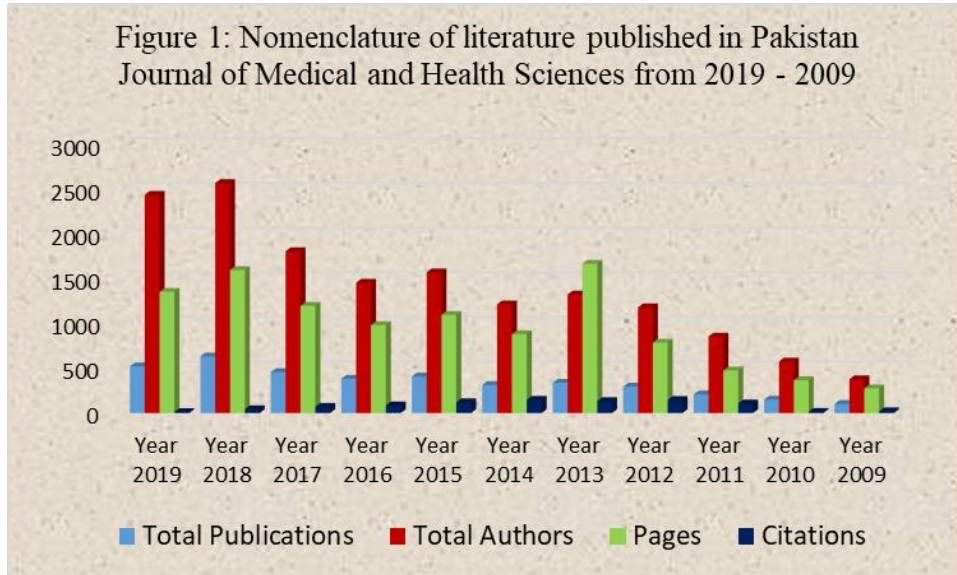


Table 1: Research productivity published in the Pakistan Journal of Medical and Health Sciences from 2019 - 2009.

S. No	Year	Issue 1	Authors	Pages	Citations	Issue 2	Authors	Pages	Citation	Issue 3	Authors	Pages	Citation	Issue 4	Authors	Pages	Citations	Total Publications	Total Authors	Total Pages	Total Citations
1	2019	97	438	263	3	120	577	303	2	137	654	340	3	169	774	451	3	523	2443	1357	11
2	2018	147	552	399	19	163	669	377	15	154	637	403	5	170	717	421	4	634	2575	1600	43
3	2017	140	549	343	23	87	371	234	16	111	444	304	14	121	448	319	17	459	1812	1200	70
4	2016	71	268	171	15	100	375	248	25	109	398	294	17	104	418	271	28	384	1459	984	85
5	2015	131	505	323	34	93	373	327	25	96	348	229	35	88	349	220	27	408	1575	1099	121
6	2014	74	273	187	47	62	246	176	33	87	332	222	37	91	365	298	31	314	1216	883	148
7	2013	77	306	652	35	83	334	548	37	78	313	201	37	101	373	270	25	339	1326	1671	134
8	2012	73	292	206	53	60	262	170	15	83	319	217	35	80	311	195	43	296	1184	788	146
9	2011	52	212	144	36	48	199	162	26	56	236	15	23	52	210	155	22	208	857	476	107
10	2010	18	72	65	2	24	100	88	4	35	146	78	3	73	258	136	3	150	576	367	12
11	2009	24	81	58	3	32	106	79	8	46	191	139	8					102	378	276	19
12	Totals	904	3548	2811	270	872	3612	2712	206	992	4018	2442	217	1049	4223	2736	203	3817	15401	10701	896
13	Average	82.1	3.9	3.1	29.8	79.2	4.1	3.1	23.6	90.1	4%	2.4	21.8	104.9	4%	2.6	19.3	347	4%	2.8	23.4%

Figure 2 and table 2, show the fascinating combination of involvement of authors in the research published in the Pakistan Journal of Medical and Health Sciences from 2019 – 2009. Total 15401 authors written 3817 documents, with an average of (4%) per document out of 739 papers. The majority 1399 documents written by three authors, followed by four (3344) authors wrote 836 documents, and six authors contributed in 447 (2682) documents. Only 128 documents scripted by solo or single authors. The names of five authors reveals, that Latif, A. contributed 50 articles, followed by Abbasi, M.H 40, Farooq, M. 39, Abid, K.J. 34, and Dar, U.F. 29 articles as most contributed authors.

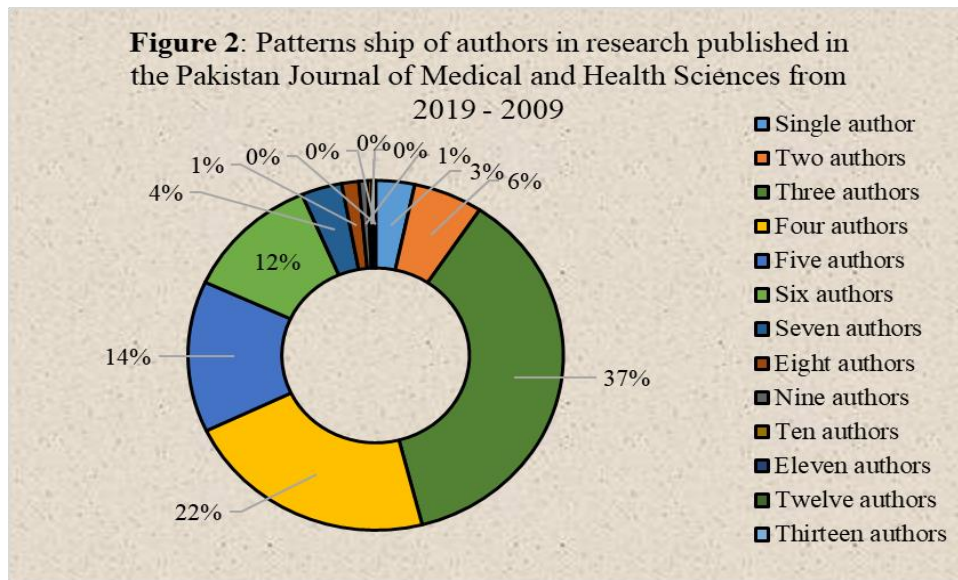


Table 2: Year wise pattern of authorship in the Pakistan Journal of Medical and Health Sciences from 2019 – 2009.

S. No	Pattern of authorship	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	Total publications	Total authors' involvement in publications	Authors average per year
1	Single author	14	12	9	11	19	9	17	7	12	10	8	128	128	21.3
2	Two authors	34	23	20	20	12	28	32	17	13	16	14	229	458	38.1
3	Three authors	117	257	197	168	187	127	122	100	54	44	26	1399	4197	233.1
4	Four authors	83	142	102	99	89	61	65	86	48	31	30	836	3344	139.3
5	Five authors	72	85	69	42	45	42	46	48	44	27	13	533	2665	88.8
6	Six authors	150	82	38	27	27	28	32	20	22	16	5	447	2682	74.5
7	Seven authors	27	19	15	9	17	10	11	10	12	2	2	134	938	22.
8	Eight authors	15	8	2	2	5	5	8	6		3	2	56	448	10.1
9	Nine authors	5	3	3	4	3	2	4		2	1	1	28	252	5
10	Ten authors	4		2	1	2	2	2	1			1	15	150	3.3
11	Eleven authors			1	1	2			1	1			6	66	2
12	Twelve authors	2	2	1									5	60	2.5
13	Thirteen authors		1										1	13	1
12	Total	523	634	459	384	408	314	339	296	208	150	102	3817	15401	47.6

Table 3 shows the breakdown of names of countries in research productivity published in PJMHS from 2019 – 2009, that 29 countries participated in the research published in the Pakistan Journal of Medical and Health Sciences from 2019 – 2009. The majority 3484 (91%) documents scripted and published by Pakistan, followed by Iran with 79 (2%), Indonesia with 77 (2%), and Kingdome of Saudi Arabia with 65 (1.7%) of documents. Two countries contributed 5 and 2 articles, four countries 3, and 1 article submitted by eleven countries each.

Table 3: Participations of countries (Alphabetically) in research productivity published in the Pakistan Journal of Medical and Health Sciences from 2019 - 2009

S. No	Name of country	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	Total	%
1	Australia	1						2					3	0.08%
2	Bangladesh		1										1	0.03%
3	China				1			2					3	0.08%
4	Germany								1		1	1	3	0.08%
5	Ghana		1										1	0.03%
6	India	10	5	6					1				22	0.58%
7	Indonesia	39	31	4		3							77	2.02%
8	Iran	40	34	4	1								79	2.07%
9	Iraq	3	3	2								1	9	0.24%
10	Ireland		2		2			1		1			6	0.16%
11	Italy										2		2	0.05%
12	Jorden			1					1	5			7	0.18%
13	Kingdome of Saudi Arabia	29	4	5	8	7	6	3		1	1	1	65	1.70%
14	Kuwait				1								1	0.03%
15	Malaysia	2	1	5		4	1		1			1	15	0.39%
16	Netherland		1										1	0.03%
17	Nepal	1											1	0.03%
18	Nigeria			1				1					2	0.05%
19	Pakistan	381	545	428	370	391	306	328	292	201	145	97	3484	91.28%
20	Russian Federation	12	2	2									16	0.42%
21	South Korea	1											1	0.03%
22	Sudan	4	1										5	0.13%
23	Sweden											1	1	0.03%
24	Taiwan					1							1	0.03%

25	Turkey						1						1	0.03%
26	United Arab Emirate							1					1	0.03%
27	Uganda					1							1	0.03%
28	United Kingdome			1	1	1		1			1		5	0.13%
29	United States of America		3										3	0.08%
30	Total publications	523	634	459	384	408	314	339	296	208	150	102	3817	

Discussion & Conclusion:

Pakistan Journal of Medical and Health Sciences (PJMHS) is regular and indexed as Q4 in a globally acknowledged database, famous in medical and health sciences communities worldwide. For its attention towards, a) keep review standards, b) visibility to stakeholders, c) and d) provision of spaces to professionals fit in basics, clinical, and health sciences medicine. Pakistan Journal of Medical and Health Sciences (PJMHS) encourages scientists, academia's and clinicians to facilitate each-other with thoughts, talk about the hypothetical methodologies of these thoughts, make them centers around the research cycle, get the trust of the community of readers, publishers, and their professional associations.

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Conflict of Interest: None to declare.

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