

MAPPING THE RESEARCH PRODUCTIVITY OF PREHOSPITAL EMERGENCY CARE JOURNAL FROM 2019 - 2005

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Abstract - *This retrospective study helps to understand the nomenclature of publications published in the Prehospital Emergency Care (PEC) journal, which covered the field of emergency medical services indexed in the Scopus-Elsevier database. The year-wise publication, document type, authorship-pattern, cited articles, and geographical location, on file format with comma-separated value (CSV) and plain-text on note-paid, downloaded on the date June 24, 2020, for tabularization in MS Office Excel Sheet 2010 for analysis. A total of 1327 published documents retrieved from the Scopus-Elsevier database and 1287; 85.8% written by 6976; 5.4% authors during the years 2019 – 2005, selected for examination. Majority of articles 1217; 94.5% articles written by multi-authors in collaborative manners, only 70, 5.4% articles written by single or solo authors. As per the document, a total of 1135, 88.1% documents got citations out of 1287 documents out of 17609; 15.5% citations. An article titled “Guidelines for prehospital management of traumatic brain injury” written by Badjatia, N. et al in 2008 got 203 citations as highest. Seventy documents published in 2008 and all documents cited by researchers. The United States pay contribution with 1071; 83.2% as highest most, trailed by Canada 75; 5.8%, and Australia 44; 3.4 documents. It seems to regular publications, strict policies, large viewing and citations, the spectrum of care in sub-specialties of emergencies, keen observations of healthcare personals and sharing experiences with each are the motivational points in writing and publishing the research data in Prehospital emergency care journal.*

Keywords: *Bibliometric, prehospital emergency care, healthcare, and trauma.*

1. INTRODUCTION AND LITERATURE REVIEW

Compiling a journal is not an easy job. Reading and auditing manuscripts for publications by editorial team members, selecting and sending to reviewers for review, waiting for the comments, and transfer to talented authors for further concealing the objections and suggestions, and finally approved or reject to publish. Witt, C. (2020) required appreciations from institutes' management thru the publications published in reputed journals affiliated with one or many databases recognized globally. Jawaid, S. A. (2019) emphasizes the importance of biomedical journals and their positions in the academic community through the improvement of impact factor and journal citation report managed by Clarivate Analytics from the USA. Tanveer, Muhammad, et al. (2019) selected the Saudi Medical Journal (SMJ) for quantitative analysis, which indexed in the Scopus-Elsevier database and used similar techniques to explore publication growth, forms of documents, authorship-pattern, contributed countries. A study found that the editorial team work-hard and published 7700, 187.8% documents per annum from 1979 - 2019.

Yanbing, Su, et al. admirer of the influence of bibliometric analysis due to the scientific community's significant concern towards specific discipline or subject specialty and reviewed the 1913 publications, published in the Journal of Nursing Management (JNM) from 1993 – 2018. He found that the research productivity of JNM helps in the creativity of nursing communication, quality and safety preferences in

nursing management, and leadership in resolving conflicts. Jiun, Choi. Et al. (2016) evaluated the publications of South Korean physicians published in three databases; Pubmed, Embase, and Web of Science, during 1996 – 2015 in emergency medicine. The study found that 293; 34.1% Korean authors participated in 858 articles, which published in 191 journals with several citations and however, in h-index remain steady.

Analysis of citations is part of the bibliometric studies; Hossain, Md Mahub (2020), retrieved the data of 422 sources from three main modules; a) Emerging Sources Citation Index, b) Social Sciences Citation Index, and c) Science Citation Index Expanded of Web of Science (WoS) on April 1, 2020, reflected the COVID-19 or Novel coronavirus with other similar words. Studies discover that science is active, and scientists thrive on bringing answers to random questions. Hossain, M.M. (2020) appreciated the role of the emergency medical services (EMS) team. They dealt with trauma as a complicated health problem and engaged in providing vital lifesaving care to injured persons interlinked to the correct facility with necessary arrangements. Active, competent, and efficient EMS personals, utilized ambulances as rapid transit of patients with better care in the process. Alshamrani et al. (2020) support to Hossain with words that, in emergency medical services (EMS), significant transitions of critically ill patients from the accidental spot to the emergency department (ED) are very critical to patient care and their safety. These collaborative efforts ensure prompt responses, with efficient ways to deal with life-threatening situations from afar imaginations Shin, Kyohong, and Taesik Lee. (2020).

Gunderson, Michael R., et al. (2020) explain the terminology of PEC journal that this Pre-hospital Emergency Care (PEC) journal is the official journal of six national associations of EMS Physicians; a) State EMS Officials, b) EMS Educators, c) EMS Management Association, d) EMTs and e) Registry of Emergency Medical Technicians which started its publication from January 1997 to till this day". Menegazi, J (1997) described the journal's mission statement that provides a forum to pre-hospital care providers for presenting ideas, sketching plans, nurturing new theories for open discussions, and educating them with support of the latest technological tools and techniques. After eleven years, Cone, D.C (2008) present congratulations to Menegazi, J on publishing 5000 thousand peers reviewed research papers in Prehospital Emergency Care (PEC) journal (Cone, David C, et al. (2008).

2. MATERIAL & METHODS

The published data of the journal Prehospital Emergency Care from 2019 - 2005, listed in Scopus-Elsevier Database, downloaded on June 24, 2020, for calculated in MS Office Excel Sheet 2010. The document design with comma-isolated worth (CSV) and Plain text on Note-paid utilized, composed "1545-0066" An International Standard Serial Number (ISSN) as source title, authors names are necessary for inclusion of data on plain-text on note-paid. Six objectives were set to investigate, a) to analysis year-wise publications, b) to recognize document type, c) to calculate the authors' contribution in publications, d) to check pattern of authorship, e) assess the year-wise citation, f) to figure the involvements of countries in publications.

3. RESULTS

Table 1 and Figure 1 displays that, 1287 documents published with an annual average of 85.8 written by 6939 authors and with an average of 5.4 authors. The year 2019 was the most productive; it produced 129, 6.2% documents more than 14 documents as the previous year 2018 as maximum and year 2014 produced 54, 4.1% documents as minimum.

Table1. Research published in Prehospital Emergency Care journal from 2019- 2005

S. No	Years	Documents download to review	Documents excluded after review	Documents selected for study	Contribution of total authors
1	Year 2019	129	00	129	808 (6.2%)
2	Year 2018	115	00	115	844 (7.3%)
3	Year 2017	109	10	99	622 (6.2%)

4	Year 2016	106	02	104	619 (5.9%)
5	Year 2015	74	02	72	462 (6.4%)
6	Year 2014	78	03	75	478 (6.3%)
7	Year 2013	54	02	52	305 (5.8%)
8	Year 2012	92	01	91	460 (5%)
9	Year 2011	78	08	70	317 (4.5%)
10	Year 2010	98	05	93	431 (4.6%)
11	Year 2009	81	02	79	333 (4.2%)
12	Year 2008	72	02	70	322 (4.6%)
13	Year 2007	75	00	75	344 (5%)
14	Year 2006	87	02	85	301 (3.5%)
15	Year 2005	79	01	78	293 (3.7%)
		1327	40	1287	6939 (5.4%)

Figure 1: Research published in Prehospital Emergency Care journal from 2019- 2005

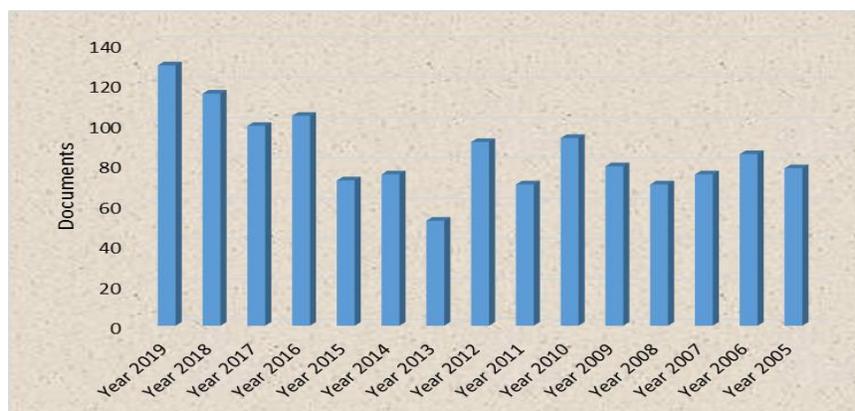
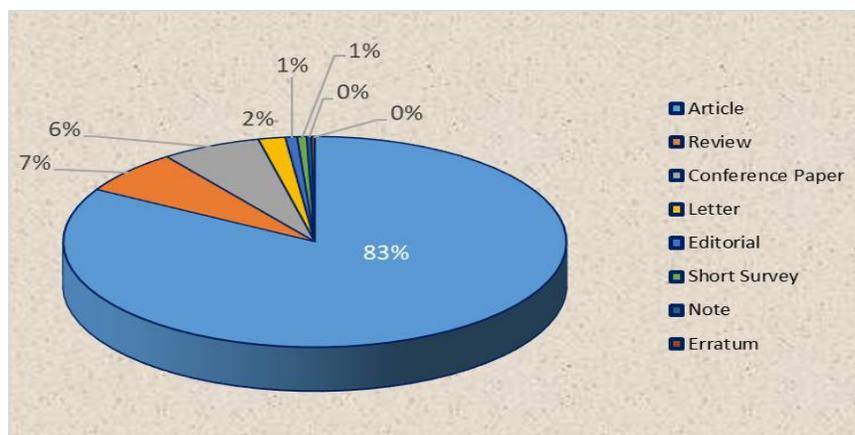


Figure 2 reveals the seven categories of documents published in PEC journal indexed in Scopus-Elsevier Database shows the perfect picture of records, the majority research existing on articles followed by review articles and conference papers.

Figure 2: Document downloaded for study of Prehospital Emergency Care journal from 2019- 2005



Citation regularly helps a researcher develop related ideas conceived from similar topics, think, plan, and write by other intellectuals for publication. Moreover, it supports a body of publishers operated by

academia or the business world. Citation improves a journal's value affiliated to any discipline, specialty, or sub-specialty among identical planetary Siddique, Nadeem, et al. (2020). Table 2 shows the impact and value of research documents published in the PEC journal from 2019 – 2005. Total 1135, 85.5 records got citations out of 1287 papers as per the description, and the PEC journal took 17609; 15.5% citations for every article. Three articles were most cited. An article titled "Guidelines for prehospital management of traumatic brain injury," written by Badjatia, N. in 2008, got 203 citations. Followed by "A meta-analysis of prehospital care times for trauma" in 2006 reached 148 citations, "Defining the "learning curve" for paramedic student endotracheal intubation" in 2005 got 120 citations, and "A descriptive analysis of emergency medical service systems participating in the Resuscitation Outcomes Consortium (ROC) network" in 2007 reached 115 citations.

Table2. Nomenclature of citations with self-citation explain by Scimag.

Years	Articles	Manually counted citations	Percentage of citations	Manually counted citations	*According to Scimag Self-Cited
Year 2019	129	70	54.2%	164	118
Year 2018	115	97	84.3%	501	156
Year 2017	99	91	83.4%	656	131
Year 2016	104	97	91.5%	852	115
Year 2015	72	65	87.8%	894	70
Year 2014	75	74	94.8%	1258	94
Year 2013	52	49	90.7%	757	102
Year 2012	91	88	95.6%	1651	118
Year 2011	70	58	74.3%	1018	106
Year 2010	93	91	92.8%	1932	97
Year 2009	79	74	91.3%	1464	47
Year 2008	70	70	100.0%	1708	80
Year 2007	75	66	88%	1447	50
Year 2006	85	76	87.3%	1643	44
Year 2005	78	69	87.3%	1664	91
Totals	1287	1135	85.5%	17609	1419

Figure 3, and table 3, shows the breakdown of authorship-pattern of the study. Majority 1065; 93.8% articles written in collaborative manners, only 70, 6.1% articles written by single or solo authors. Five authors on top slot, followed by four, three and seven authors as contributed in authors. The ratio 844; 7.3% authors highest for 115 articles in the year 2018, followed by 462; 6.4% for 72 articles in the year 2015, and 478; 6.3% for 75 articles in the year 2014, out of 1287 articles.

Figure 3. Authorship-pattern in research productivity of Prehospital Emergency Care journal from 2019- 2005

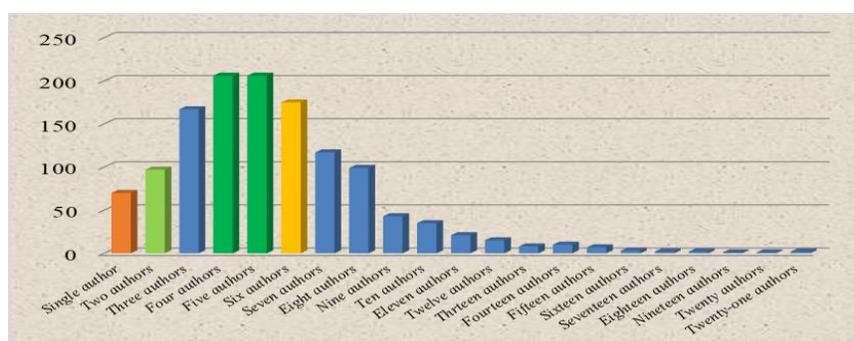
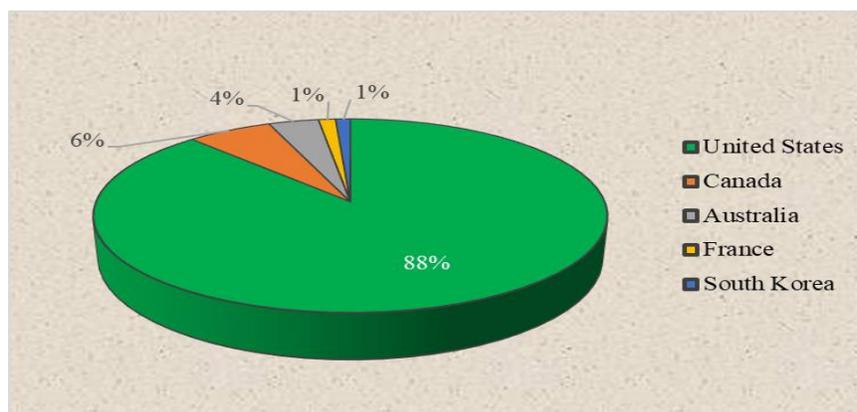


Table 3. Authorship-pattern in research productivity of Prehospital Emergency Care journal from 2019- 2005

Total Authors	Year 2019	Year 2018	Year 2017	Year 2016	Year 2015	Year 2014	Year 2013	Year 2012	Year 2011	Year 2010	Year 2009	Year 2008	Year 2007	Year 2006	Year 2005	Total	%
1 author	2	3	4	1	0	1	1	5	13	3	6	2	3	19	7	70	1%
2 authors	10	6	12	2	0	6	0	14	12	22	20	14	18	26	32	194	2.8%
3 authors	27	12	18	48	42	39	6	27	42	54	33	42	36	33	42	501	7.2%
4 authors	52	36	44	88	36	28	44	72	24	52	92	60	52	76	68	824	11.8%
5 authors	125	80	95	35	60	55	80	95	20	100	50	75	55	45	60	1030	14.8%
6 authors	138	96	90	108	60	54	30	90	48	78	54	48	54	36	36	1020	14.7%
7 authors	112	112	77	98	42	77	49	56	28	49	42	21	14	14	21	812	11.7%
8 authors	128	128	72	64	56	40	56	16	80	48	16	24	16	32	16	792	11.4%
9 authors	45	72	27	63	27	45	18	27	18		9	9	18	9		387	5.5%
10 authors	60	100	40	40	40	20		20	10	10			10	11		361	5.2%
11 authors	44	11	22	33	11	11		11	22		11		33		11	220	3.1%
12 authors	24	12	48	24	12	36		12				12				180	2.5%
13 authors	13	39	26	0	13	13										104	1.5%
14 authors	28	56	14	0	42											140	2%
15 authors		30	0	15	0			15		15		15	15			105	1.5%
16 authors		16	16		0	16										48	0.6%
17 authors		17	17		0	0										34	0.4%
18 authors		18			0	18										36	0.5%
19 authors					0	19										19	0.2%
20 authors													20			20	0.2%
21 authors					21		21									42	0.6%
Total authors	808	844	622	619	462	478	305	460	317	431	333	322	344	301	293	6939	(5.3%)

Figure 4, shows that five countries produced 1218; 94.4% of research productivity published in the PEC journal from 2019 – 2005 out of 29 countries. Remaining 69; 5.3 documents participated by 24 countries; i.e Singa-Pore with 08, Japan and Netherland with 07, Germany with 06, Sweden and United Kingdome with 05, and Austria with 04 articles. Italy, Norway, and Portugal contributed to 03 articles. Israel, New Zealand, South Africa, South Korea, and Switzer land participated with 02 articles, Belgium, Denmark, Finland, Ghana, Hong Kong, Ireland, Iran, Lebanon, Spain, and Viet Nam present 01 article.

Figure 4. Contribution of top five countries in research productivity in Prehospital Emergency Care journal from 2019- 2005



4. DISCUSSION & CONCLUSION

For more understanding we distributed this study into three parts; 2005 – 2009, 2010 – 2014, and 2015 – 2019. The first five years produced 387 articles contributed by 1630; 4.2% authors, second five years 381 documents participated by 1991; 5.2% authors, and third quarter 3355; 6.4% authors added 519 articles. It is an interesting fact that in the second phase, documents ratio slightly decreased to the first part, but on the other hand the ratio of contribution of authors 398; 11.1% increased. In the third segment with the ratio of publications 138; 15.4% were increased, with addition 3355; 26% of authors. The citations are important to authors but for journals too, similar to above, the 381 documents published in the second segment got 360; 94.4 percent citations, instead of first part 355; 91.7 %, and third 420; 81% on 519 articles. All 70 documents published in the year 2008 got 100% of citations. The strict appliances of editorial policies on manuscripts, regular publishing of publications, understanding of information communication technologies by authors, a big community of readers, and the large spectrum of sub-specialties in the field of prehospital emergency care, might be helpful to researchers in corroboration with attachments in literature.

Disclaimer: This published data in Scopus-Elsevier Database from 1984 to 31 December 2019 supports only participation not inclined or declined of any organization, city, country, and standards.

Conflict of Interest: None to declare.

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