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March 2012

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Recommended Citation

Sharif, A. (2012). Citation analysis of editorials of core Pakistani medical journals. *Pakistan Library & Information Science Journal*, 43(1), 27-32.

Available at: <http://ecommons.aku.edu/libraries/3>

CITATION ANALYSIS OF EDITORIALS OF CORE PAKISTANI MEDICAL JOURNALS

Ashraf Sharif

Abstract:



All volumes published in five years (2005-2009) of three core Pakistani medical journals, namely, Journal of Ayub Medical College (JAMC), Journal of Pakistan Medical Association (JPMA), and Journal of College of Physicians and Surgeons Pakistan (JCPSP) were analyzed to find out citation pattern of their editorials. The result revealed that JPMA has been the most cited journal. The result further revealed that contribution of more than three authors in an editorial remained prominent in all three journals under discussion. Journals/serials had been dominating as bibliographic format in all three journals. The most citations' age remained 1-5 years old. Interestingly out of three journals, two of them were most cited articles from the same journals, thus a trend of self-citation of journals were found in these two journals.

Keywords: 1. Medical Journals--Citation analysis--Pakistan 2. Bibliometrics

Introduction:

Citation analysis is the examination of the frequency, patterns, and graphs of citations in articles and books. It uses citations in scholarly works to establish links to other works or other researchers. Citation analysis is one of the most widely used methods of bibliometrics. For example, bibliographic coupling and co-citation are association measures based on citation analysis (shared citations or shared references).¹ Citations represent the pool of archival knowledge from which authors retrieve established ideas and, in turn, generate new research ideas. This knowledge may be disseminated within an area and across disciplinary boundaries. Such an exchange of knowledge represents the passage of ideas within and among academic disciplines. This exchange process has the potential to enhance or expand a field's knowledge development.² Editorials written by journal editor(s) proved a glimpse of the philosophy and opinions about topical events.³

In Pakistan, citation analysis has gained a visible popularity during the last five years and one can find several published articles written by Pakistani authors on this topic.

Pakistan Medical and Dental Council (PMDC), the statutory regulatory and registration authority for medical and dental education and practitioners for Pakistan, has enlisted 53 journals as approved journals of Pakistan.⁴ Out of these, three research journals have some international visibility. These three titles are amongst PubMed indexed journals. PubMed is the most comprehensive international index of medical journals. The Journal of the Pakistan Medical Association (JPMA) started its publication from Karachi in 1974 under the flagship of Pakistan Medical Association. Published monthly, this journal is considered to be Pakistan's leading journal in medical field. It is also the oldest medical journal of the country that has regular publications on monthly basis. Journal of the College of Physicians and Surgeons Pakistan (JCPSP) is published by College of Physicians and Surgeons Pakistan. Started in 1991, it is another journal that has a significant value in this region. It is

being indexed index Medicus/MEDLINE and EMBASE/Excerpta Medica. Ayub Medical College is situated in Abbottabad, a city in the north western province, Khyber Pakhtunkhwa, has been publishing its scientific journal, Journal of Ayub Medical College (JAMC) since January 1988. JAMC has gained its place as a standard medical journal recognized by the Pakistan Medical and Dental Council (PMDC) and registered with the Index Medicus of the World Health Organization (WHO; EMRO), and Medline (USA). It started off with printed volumes, initially published biennially (1988-1999) and then quarterly since January 2000 to the present date.⁵

Objectives of the study:

The purpose of this study was to evaluate citations given in editorials of core Pakistani medical journals to assess the pattern of citations. The specific objectives of the study were to find out: period-wise number of citations per editorial; authorship pattern of citations; distribution of citations according to bibliographic forms; age of cited documents; a list of top ten cited journals; and a comparison of all measures described above in the three journals.

Methodology:

Selection of top medical journals was based on indexing in MEDLINE (Medical Literature Analysis and Retrieval System Online). Citations of editorials of these three journals i.e. JAMC, JPMA and JCPSP were examined. All issues of these journals published in five years (2005-2009) were covered. Only editorial of the selected journals were included in this study. Some of the latest editorials were downloaded from journals' websites i.e. JAMC,⁶ JPMA,⁷ JCPSP⁸ or PakMediNet⁹ website. And those were not available online, were collected from Faculty of Health Sciences Library, Aga Khan University, Karachi. A coding scheme was designed for data entry. Using this scheme, the data were entered manually in MS Excel spreadsheet. Data about a citation included number of authors, difference between the year of publication of cited document and of citing article, type of document cited, foreign or local publication in case of monographs, and journal title in case of journals. The SPSS software was used to analyze the collected data. The references were maintained using End Note.

Findings and discussion:

Citations per editorial:

Table 1 describes period-wise citations of three journals were analyzed. In five volumes of the JAMC, there were 175 citations in 15 editorials published in five

Table 1: Citations per editorial

Period	Editorials	Citations	Citation/editorial
JAMC	15	175	11.7
JCPSP	60	501	8.4
JPMA	67	731	10.9

volumes under study. The mean score of citations for each editorial was 11.7 in this journal. The JCPSP had 501 citations in 60 editorials and the JPMA has 731 citations in 67 editorials,

thus the mean score were 8.4 and 10.9 respectively. Thus the difference between highest and lowest had been 3.3 citations per editorial, which is not visible.

Authorship pattern of citations:

Authorship pattern of citations of journals studies are shown in Table 2. The data shows that 7.4, 4.8, and 5.9 percent of citations of the JAMC, the JCPSP, and the JPMA, respectively, had no details of the authorship, whereas 23.4, 25.0, and 18.5

Table 2: Authorship pattern of citations

Author count	JAMC		JCPSP		JPMA	
	Citations	% age	Citations	% age	Citations	% age
Without author	13	7.4	24	4.8	43	5.9
One	41	23.4	125	25.0	135	18.5
Two	30	17.1	82	16.4	143	19.6
Three	21	12.0	64	12.8	78	10.7
Four or more	58	33.1	161	32.1	106	14.5
Corporate author	12	6.9	45	9.0	226	30.9

percent of the citations were singled-authored. Two-authored citations were 17.1, 16.4 and 19.6 percent, whereas 12.0, 12.8 and 10.7 percent citations were three-authored in three journals under study. It was interesting those articles written by four or more than four were had the highest percentage in the JAMC and the JCPSP (33.1 and 32.1 percent). The corporate authors had lesser citations in the JAMC and the JCPSP (6.9 and 9.0 percent, respectively) while the highest presence of corporate authors was seen in the JPMA (30.9 percent).

Distribution of citations according to bibliographic forms:

The use of different type of sources cited by the authors of the JAMC, JCPSP and JPMA is shown in Table 3. The distribution of references among ten general forms of sources (Journal/serials, locally published monographs, foreign published monographs, conference proceedings, reports, websites, interviews, unpublished material, newsletters and others) is given in Table 3. The dominating

Table 3: Distribution of citations according to bibliographic forms

Bibliographic Form	JAMC		JCPSP		JPMA	
	Citations	%age	Citations	% age	Citations	% age
Journals/Serial	135	77.1	410	81.8	539	73.7
Book (Local)	1	0.6	7	1.4	13	1.8
Book (Foreign)	20	11.4	39	7.8	43	5.9
Conference Proceedings	1	0.6	1	0.2	3	0.4
Reports	6	3.4	15	3.0	39	5.3
Websites	5	2.9	26	5.2	74	10.1
Unpublished material	0	0.0	1	0.2	1	0.1
Newsletter	0	0.0	0	0.0	2	0.3
Other	7	4.0	2	0.4	17	2.3

form was journal/serials in all three journals under study (77.1 percent in JAMC, 81.8 percent in JCPSP, and 73.7 percents in JPMA). The monographs published outside Pakistan were the second in position with 11.4 percent cited in JAMC, 7.8 in JCPSP and 5.9 in JPMA). The study showed a visible number of citations of websites in JMPA (10.1 percent), whereas the same was 2.9 percent in JAMC and 5.2 in JCPSP. Others form couldn't attract the attention of author.

Age of the cited literature:

The age of citations was calculated by noting the difference between the year of publication of citing articles and that of cited documents (Table 4). This study showed the various aging values in different journals. The citing articles published within five years had a visible presence in UCPSP and JPMA (49.7 and 52.9 percent, respectively), whereas this age group was not much prominent in Table 4: Age of the cited literature

Age	JAMC		JCPSP		JPMA	
	n	% age	n	% age	n	% age
In press	0	0.0	2	0.4	0	0
Current year	10	5.7	52	10.4	74	10.1
1-5 years	30	17.1	249	49.7	387	52.9
6-10 year	47	26.9	101	20.2	162	22.2
11-25 years	67	38.3	78	15.6	81	11.1
26-50 years	14	8.0	13	2.6	15	2.1
More than 50 years	1	0.6	0	0.0	4	0.5
No year mentioned	6	3.4	6	1.2	8	1.1

JAMC (17.1 percent). The most citations age in JAMC was up to 25 years (38.3 percent), whereas the same category has only 15.6 and 11.1 percent presence in other two journals under study.

Most cited journals:

The journal citations were further analyzed to establish a list of journals mostly cited by the authors. Tables 5, 6 and 7 provide ranked lists of the top ten most frequently cited journals in the three journals under study, respectively. It is interesting to note that the Journal of Clinical Endocrinology & Metabolism,

Table 5: Top ten journals cited in the JAMC

S. No.	Rank	Journal	Citations
1	1	Journal of Clinical Endocrinology & Metabolism	8
2	2	Journal of Ayub Med College	4
3	2	Journal of the American Medical Association	4
4	3	American Journal of Medicine	3
5	3	American Surgery	3
6	3	British Medical Journal	3
7	3	Journal of Surgery	3
8	3	The Journal of Trauma	3
9	3	Metabolism	3
10	3	The Journal of Medicine	3

Table 6: Top ten journals cited in the JCPSP

S. No.	Rank	Journal	Citations
1	1	British Medical Journal	19
2	1	Journal of College of Physicians & Surgeons Pak	19
3	2	Journal of Medical Association	17
4	3	Journal of the American Medical Association	12
5	4	Lancet	9
6	5	The Journal of Medicine	8
7	6	Academic Medicine	5
8	6	Breast	5
9	6	Gastrointestinal Endoscopy	5
10	6	Psychiatric Bulletin	5

Table 7: Top ten journals cited in the JPMA

S. No.	Rank	Journal	Citations
1	1	Journal of Medical Association	36
2	2	British Medical Journal	19
3	3	Lancet	16
4	4	Journal of College of Physicians & Surgeons Pak	13
5	5	The Journal of Trauma	12
6	6	Hernia	10
7	7	Journal of the American Medical Association	7
8	7	Journal of Medical Science	7
9	7	Surgical Endoscopy	7
10	8	American Journal of Psychiatry	6

British Medical Journal and Journal of Pakistan Medical Association had been top cited journal in JAMC, JCPSP and PJMA, respectively. It is noteworthy that the JPMA was cited more than any other journal in its own editorials. Other top cited two journals that were common in the top ten lists in three journals include Journal of Ayub Medical College, Journal of the American Medical Association, Journal of College of Physicians & Surgeons of Pakistan, Journal of Pakistan Medical Association, British Medical Journal, and Lancet. Among these top three journals cited in each journal, two journals, namely Journal of Clinical Endocrinology & Metabolism, Journal of the American Medical Association are American; British Medical Journal and Lancet are British, whereas rest of five journals are Pakistani. Their frequent citations of foreign journals in Pakistani core medical journals show the huge impact of American and British literature on Pakistani literature in this field. It is also worth mentioning that contrary to the JAMC and JCPSP, the self-citations of the JPMA are very high (36 citations).

Conclusion:

The citation analysis of three core Pakistani medical journals revealed that there is an invisible mean difference between the highest and the lowest medical journals citations. On authorship pattern of citations, it is worth mentioning that JPMA has a visible presence of corporate authors as compare to other two journals. Another interesting result regarding bibliographic forms is that all authors cited foreign published monographs significantly as compare to local ones. It is also important to note that citations in JAMC editorials were

older than the other two journals. Amongst most cited journals, two of them were most cited articles from their own published articles, thus a trend of self-citation were noticed in these two journals.

References:

1. Wikipedia. Citation analysis. Retrieved September 10, 2011, from http://en.wikipedia.org/wiki/Citation_analysis
2. Sharif, A., & Mahmood, K. How Economists Cite Literature: Citation Analysis of Two Core Pakistani Economic Journals. *Collection Building*, 17(3). 2001. p.173-177.
3. Thomas, S. P. Talking it over with the gals: an analysis of editorials by Phyllis Stern. *Health Care for Women International*, 27(6). 2006. p.481-489.
4. PMDC. Index Pakistan of our approved journals. Retrieved September 10, 2011, from <http://dev.plexushosting.com/pmdc/Home/IndexedPakistanofJournals/tabid/148/Default.aspx>
5. Midrarullah, Butt, I., & Haroon, M. The journal of Ayub Medical College: a 10-year bibliometric study. *Health Information Library Journal*, 25(2). 2006. p.116124.
6. AMC. Journal of Ayub Medical College. Retrieved 2010, from <http://www.ayubmed.edu.pk/JAMC/>
7. PMA. Journal of Pakistan Medical Association. Retrieved 2010, from <http://www.jpma.org.pk/index.php>
8. CPSP. Journal of the College of Physicians and Surgeons Pakistan. Retrieved 2010, from <http://www.cpsp.edu.pk/index.php?code=MjJ8TGVmdHxqY3BzcF9hcmNoaXZILnBocHww>
PakMediNet. PakMediNet: Pakistan's largest medical information gateway. Retrieved 2010, from <http://www.pakmedinet.com/>

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A Bio-Bibliographical Study

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A Publication of Library Promotion Bureau

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Pakistan Bibliographical Working Group

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