

Journals' Productivity in the Literature on Health Information

Yahya Ibrahim Harande¹

Abstract

The purpose of the study was to outline the journals that published articles on the literature of health information and to determine the core productive journals. The study utilizes the LISA database as the main database for the study. The search term used for data removal was "Health Information". A total of 1681 journal articles was realized from 195 journals from 2000-2010. Bradford's law was applied to the data in order to determine the core productive journals. As a result of this exercise, six journals emerged as the core journals. The Health Information literature was found to be in harmony with the Bradford's law of dispersion. The major language for dissemination in the literature was found to be English with (97.4%) score. Followed by French with only (1.2%) score. This indicates that a great number of relevant health information literatures could be reached through the English based journals. Information workers and researchers are hereby notified to consider the six core journals found in this study as part of their relevant sources for research and studies on health information.

Keywords: Journal productivity; literature; health information; core journals; Bradford's law.

Introduction

Society is said to be developed when its socio-economic programmes are felt in all segments of such a society. One way for achieving success is to provide the fellow citizens with sustainable good and comprehensive health. This is quite possible and attainable through awareness campaigns and other methods or techniques of drawing people's attentions to the existence of appropriate materials that could provide them with the needed health information. In line with the above statement, Bii and Otiye in their study on Kenyan community (2003) commented that, "Aggressive and proactive provision for appropriate and timely health information was necessary in order to empower the Kenyan communities to contribute to their own health." From their statement above one could deduce that, growth and development of a given community is largely centered round its accessibility to relevant health information for their daily need and survival. Health information could therefore be understood as a determining factor for the strength of a given community in any given situation. In this respect, Perttala, Reijja and Ek (2010) in their research on information behavior of the unemployed in Finland found that, "Interest towards health information was greater than interest towards unemployment related information."

¹ Department of Library and Information Sciences, Faculty of Education, Bayero University Kano, Nigeria.

Principally health information is disbursed to the targeted community in so many perspectives and dimensions. In the perspective of developing countries, the techniques applied on this issue differ, depending on the level of commitment of such a country. Some developing countries use mass media while others involves libraries, information centers and non-governmental organizations NGOs for the programme to succeed. To reach the rural dwellers, some governments translate and repackaged health information resources into local languages and distribute to them. Kaane (1997) shared the same view that, "Both government and non-governmental organizations have repackaged information in to various formats which used to transfer health information to the rural communities in developing world." This may not be viewed from the holistic point of view, as applicable to the entire developing worlds because, a significant number of communities living in both urban and rural areas of the developing world may not necessarily be literate. Therefore their accessibility to health information is to a large extent limited to mass media resources.

Communities in the developed countries are favourably disposed to more effective health information dissemination outlets than their counterparts in the developing countries. The reason could be that their governments show some high level of commitment towards health issues. Despite these efforts exhibited by the developed worlds, health information is still not satisfactorily passed to the intended communities or beneficiaries. Many reasons could be attributed to this issue. Bowler, Hong and He (2011) in their study on teen's health information found that, "Many non-health care related web sites are linking to teen health information, demonstrating that teens health information needs are being met by sources that lack expertise in health care." This finding clearly shows that the teens stand the risk of receiving health information from doubtful sources and this could lead to unhappy healthy living. Similarly a hospital website was found not fully engaged in disseminating relevant health information to the intended beneficiaries. Garcia-Localle, Pina and Royo (2011) found that, "The health information category is the one in which hospitals score worst with a mean score lower than 10 percent in the two periods analyzed. The other items included in this category are present in very few websites, which indicates that hospital websites are not being used to provide information about health and health care." The finding of this study has shown some neglect on evaluation and supervision on the operational exercises of the hospital websites. This lack of checks and balances on the activities of the website could be the major reason for not meeting the expected goals. Meeting health information needs of people consistently helps in retaining their patronage to the website.

In addition to this , Mackert, Love and Whitten (2009) opined that, "Even in economically powerful countries such as Germany, Canada, the USA, Finland and Norway, up to a quarter of the adults in the international adult literacy survey failed to reach the minimum functional competency level with every day texts-never mind medical texts or physician instructions." Kim (2010) found a strong relationship between customer satisfaction and re-use of websites, "This study indicates that there is a link between customer satisfaction and both post-use expectations and the re-use of health information found on the internet. We suggest a new variable, post-use expectation could help our understanding of the satisfaction re-use relationship." In another dimension, rural communities are at disadvantage on having access to rural life information which includes health information. To buttress this statement, Harris, Veinot and Bella (2010) quoted Harri and Wathen (2007) in their research on health information in rural Canada, that, "When seeking health care, rural residents often encounter obstacles such as long travel distances to services, severe whether, in adequate transportation systems; limited local health and social services, few choices among service providers and a lack of privacy." However health information in every community needs to be disbursed to the right people at the right time using the right sources. Health information grows like an organism and therefore need effective handling, disseminating and constant evaluation for the healthy survival of the entire human race irrespective of their geo-political location in the globe.

The main purpose of this study is to find periodicals that published articles on the literature of health information as it appeared in the LISA database and identify the core productive journals. This approach is considered one aspect of Bibliometrics applications. According to Zitt and Bassecoulard (2010) "Bibliometrics can be considered as the study of networks associated with scientific or technological activity: networks of scientists, institutions, of articles, of terms, of journals." Researches, investigations and studies were conducted in various disciplines and subject areas with the aim of finding productive journals using Bradford's law. Some of the studies include that of Behrens and Lucksch (2011) they utilized the law in their research on Mathematics. Mclean, et al (2007) was able to have found 13 core journals in Australian rural health. Also Gonzalez-alcaide, et al (2008) bibliometrically analyzed periodicals that were listed in the LISA database on the literature of library and information sciences. Similarly Lee, Kim and Kim (2010) conducted a Bibliometrics study on the term digital library as it appeared in the LISA database. Julien, Pecosckie and Reed (2011) outlined data on information behavior research from the LISA database and content analyzed the data using Bibliometrics approach. Willet, (2008) applied Bibliometrics law to the literature of chemoinformatics. Li and Willet (2010) in their Bibliometrics research on Chinese role on the disbursement of research on the literature of cyclization, MALDI-TOF and Antibiotics found that, "The productivity of the Chinese research is growing rapidly." Pelzer and Wiese (2003) used Bibliometrics approach in their research on grey literature in core veterinary medical journal. They conclude that, "The incidence of grey literature is lower in medicine and biology than in some other fields, such as astronautics and agriculture."

Mishra, Panda and Goswami (2010) in their Bibliometrics research on the National Laboratory India, found that, "A Bradford plot constructed to determine the core-citing journals shows that the curve is a typical S shape which indicates subject maturity." Uthman, (2008) in his study on HIV/AIDS in Nigeria found that, "Nigeria has achieved a significant increase in the number of SCI publications and collaborations in HIV literature from 1987-2005." Tsay (2008) conducted a Bibliometrics study on the JASIST journal and recorded increase in the production rate of the literature and its citation rate. Patra, Bhattacharya and Verma (2006) analyzed the literature of Bibliometrics using LISA as their database. They found that, "Growth of literature does not show any definite pattern." Shachaf and Shaw (2008) studied virtual transaction using Bradford's` law.

Seeman and House (2010) evaluated the trends of giving credit and acknowledgement by authors in chemists' literature. Huang and Ho (2011) used SSCI in their Bibliometrics study on the literature of historical research on corporate governance. Vivanco, et al (2011) analyzed the use of the term preembryo in scientific research bibliometrically and concludes that; the term is not used by the scientists adequately. Ritz, Adam and Laing (2010) in their study on publication pattern in access to medicine in developing countries conclude that, "Although an increasing trend in number of publications per year was found, the increase was relatively small and variable over a 10 year period." However this paper utilizes the Bradford's` law to determine the core productive journals emanating from the literature of health information.

Methodology

The library and information scienceabstracts (LISA) database was used to generate data for this study. The database is among the leading databases used for multi-dimensional form of researches in the field of library and information science. This study considers only journal articles because; they are regarded as the major outfits where findings of researches are published. The search term used to draw out relevant information for the research was ***health information***. A total of 1855 entries were realized, out of this number 1681 are journal articles. The time span for the study was 11 years; 2000-2010. Information was compiled under the following indicators; Title of journals, title of article, language of publication and date of publication of article. A total sum of 1681 journal articles was realized from 195 journals.

Table, 1 exhibits the data on the articles published by each of the journals. Core productive journals were determined by applying the Bradford's law of scattering to the data provided in Table, 1. Figure, 1 shows Bradford's plot for the spread of health information literature. Bradford (1948) arranged journals according to their output. "If the journals containing articles on a given subject area are arranged in decreasing order of productivity of articles they carried on the subject, then successive zones of periodicals containing the same number of articles on the subject form the simple geometric series 1: n: n² : n³."

Findings/ Discussions

From Table, 1, it is discovered that 195 journal titles produced 1681 articles. The highest recorded by an individual journal was 409. Followed by another individual journal that delivered 202 articles. Followed by another one title journal that produced 88 articles. These three mentioned journals were followed by two journal titles, and each of the journals parted with 87 articles. Followed by another individual journal that produced 72 articles. Six journal articles calculated for 55.8% of the total number of research outturn.

Figure, 1 showed the literature of health information graphically. The graph does not look like the Bradford-zipf plotting. In spite of this finding, the spread of health information literature is in concordance with the Bradford's law. The reason for this could be seen from the graph conspicuously that after a curve from the beginning, a straight line continued to the upper region of the graph. Six journals emerged as the core journals in this study. From the graph, one can see that clearly they constitute the core zone. The six journals totally produced 945 articles or (55.8%) of the overall articles realized. They are as follows:- (1) Health information and libraries journal (409 articles). (2) Journal of consumer health on internet (202 articles). (3) Journal of medical internet research (88 articles). (4) Journal of hospital librarianship (87 articles). (5) Journal of medical library association (87 articles) and (6) Health care on the internet (72 articles). Another striking finding is that, three of the six core journals bear the term internet in their names. This indicates that their areas of operability are largely internet based.

On the language of dissemination of the literature, English was found to have engulfed other participating languages with 97.4%. Followed by French language with only 1.2 % the remaining six languages shared less than 2 %. This shows clearly that English language dominated the literature of health information. It is not surprising because, in this computer age, English is considered as the major language for scientific researches. The database used for the study is an English based database; therefore a great number of journals indexed in the database are English based journals. These could be the reasons for the dominance of the English language. Table, 3 and Figure, 2 revealed clearly the extent of participation of the languages. Table, 2 listed out the journals that produced 5 or more articles in the literature as appeared in LISA database.

Conclusions

The six journals that constitute the core journals in the dissemination of health information literatures could be said to be highly consistent in publishing exercise. Researchers, Librarians, Teachers and Information workers can rely on these journals for any research or study that involves health information. The emergence of these journals as the core indicates to us that scholars in the vast area of health are active in sharing the results and findings of their researches with the larger community by constant publishing in these journals.

However the data used for the study was subjected to Bradford's law application and found to be in agreement with the law. Three of the core journals considered internet as their major areas of disbursement of information that relates to health information.

As communication now become popular and easy through the internet so also the issue of health information disbursement. Internet nowadays provides useful information in almost all aspects of human endeavor. The aspects of health care, health information, drugs administration, medicine, first aid activities, and other health and allied services, are treated proactively on the internet. This may informed their choice of the term internet and its inclusion on the title of their journals. The term internet on the title could be a policy requirement from the parent body or stakeholders of the journals. English language scored higher percentage than the other languages in the disbursement of the literature. This indicates that majority of relevant literature for research in health information could be accessed on the English based journals.

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Table 1: Productivity of journal literature of health information, 2000-2010

Number of articles Per title.	Number of titles	Cum. of titles		Cum. of articles	Cum% of articles
A	B	C	AXB	D	E
409	1	1	409	409	24.33
202	1	2	202	611	36.3
88	1	3	88	699	41.5
87	2	5	174	873	51.9
72	1	6	72	945	56.2
38	1	7	38	983	58.4
34	1	8	34	1017	60.4
33	1	9	33	1050	62.4
31	1	10	31	1081	64.3
23	1	11	23	1104	65.6
19	1	12	19	1123	66.8
18	1	13	18	1141	67.8
17	2	15	34	1175	69.8
14	3	18	42	1217	72.3
13	2	20	26	1243	73.9
11	4	24	44	1287	76.5
10	2	26	20	1307	77.7
8	5	31	40	1347	80.1
7	5	36	35	1382	82.2
6	5	41	30	1412	83.9
5	9	50	45	1457	86.6
4	12	62	24	1481	88.1
3	17	79	51	1532	91.3
2	33	112	66	1598	95
1	83	195	83	1681	100

Table 2: Languages that participated in the dispersion of the literature

Language	Extent of participation	Percentage
English	1638	97.4
French	20	1.2
Portuguese	06	0.3
Spanish	06	0.3
Italian	04	0.2
Danish	04	0.2
Dutch	02	0.1
Polish	01	0.05

Table 3: Ranked order of journals that produced 5 or more articles on Health Information

Journal title	Number of articles
1. Health Information and Libraries Journal	409
2. Journal of Consumer Health on Internet	202
3. Journal of Medical Internet Research	88
4. Journal of Hospital Librarianship	87
5. Journal of Medical Library Association	87
6. Health Care on the Internet	72
7. Health Informatics Journal	38
8. Japan Journal of Medical Library Association	34
9. Medicine on the Net	33
10. Medical Reference Services Quarterly	31
11. Aslib Proceedings	23
12. Journal of the Canadian Health Library Association	19
13. Library Trends	18
14. Journal of the American Society for Information Science and Technology	17
15. Shine Journal	17
16. Informatics for Health and Social Care	14
17. Journal of Medical Systems	14
18. Public Library Quarterly	13
19. Managing Information	13
20. Library Journal	13
21. Searcher	11
22. Pharmaceutical Library Bulletin	11
23. Information, Communication and Society	11
24. Health Library Review	11
25. Bulletin of Medical Library Association	10
26. Information Development	10
27. Journal of Information Science	8
28. Library Journal Japan	8
29. Reference Reviews	8
30. Reference Services Review	8
31. Drug Information Journal	8
32. Reference and User Services Quarterly	7
33. Journal of Documentation	7
34. Information Today	7
35. University of Dar-essalam Library Journal	7
36. Advanced Technology Libraries	6
37. Medical Informatics and Internet Medicine	6
38. Information Technology for Development	6
39. Journal of Electronic Research in Medical Libraries	5
40. Libri	5
41. Journal of Electronic Resources Medical Libraries	5
42. Information Research	5
43. Profesional de la Informacion	5
44. Journal Information Science	5
45. The Information Society	5
46. Online Information Review	5
47. Evidence based Library and Information Practice	5
48. Partnership: The Canadian Journal of Library and Information Practice and Research	5

Figure 1: Bradford-zipf bibliography for the journal literature in Health Information

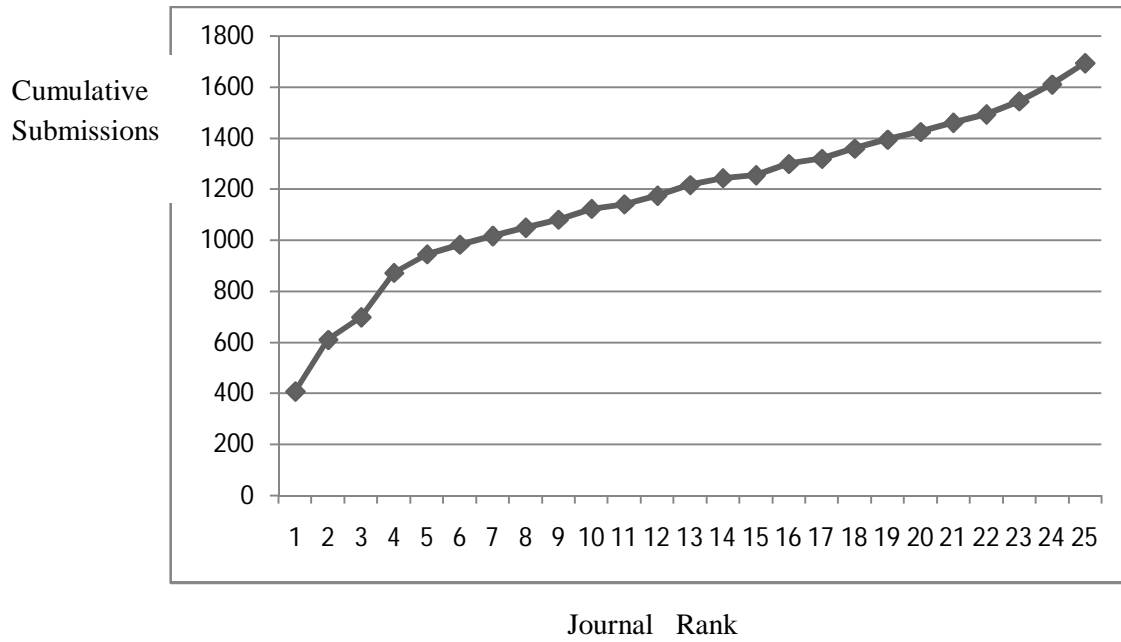


Figure 2: Languages of dispersion of the literature.

