

Information Need and Use Pattern of the Faculty Members/ Doctors of the Homoeopathic and Ayurvedic Colleges: A Critical Review

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Abstract - This paper presents a narrative review of the existing literature from the past 21 years (1997-2018) that concentrate on the information use pattern of the faculty members of the Homoeopathic and Ayurvedic Colleges. The review examines the literature in three sub themes -1. The medical faculty information need and their types. 2. Information use pattern, type of resources used, time spend for searching, barriers while searching the information and their searching skills. 3. Use of ICT, use of electronic database and use of personal digital assistance. The review is broad ranging. Traditional methods of face to face communication and use of print resources were still given importance. Dr. S. R. Ranganathan's structural model called APUPA (Alien-penumbral-Umbral-Penumbral-Alien) has been used to collect the literature related to the topic.

Keywords: Information needs, Use pattern, Review Literature, Homoeopathic and Ayurvedic Faculty.

Introduction:

In today's changing environment each and every person is in need of information. Education and research activities need more information.²¹To enhances the faculty academic performance information is a vital resource and needed. (John, 2018)⁴¹ In the medical college library use of information is found to vary with the type of users like Professors, Associate Professors, Assistant Professors, Junior Doctors and clinical staff of different departments.(Mahapatra,2014)²³ Information use pattern is one of the important key concepts of users study. This study covers a variety of facets like information need, use, access pattern, behaviour in different environment. Information use pattern by the faculty members differ from person to person.

This narrative review is concerned with Ayurvedic and Homoeopathic faculty need for information. The main aim of this paper is to focus on the information needs and literature searching or resources using pattern by the faculty or practitioners of Homoeopathic and Ayurvedic and related stream. To review the literature on the faculty information needs and their searching pattern. The past 21 years review will be examine i.e. 1997 to 2018

India is having a rich history of traditional system of medicine. Ayurveda is the most ancient, widely accepted and practiced system of medicine worldwide.³⁶ Whereas Homoeopathy is the third most popular method of medical treatment after Allopathy and Ayurveda.¹²

Methodology:

For this narrative review study, following databases were searched: Proquest, Thieme, Science Direct, Scopus, Journal of Medical Library Association and MEDLINE. Boolean operator was used for the search strategy. Only the journal articles in which the research is published was included. Journal articles reference list were also searched for addition. Research completed and published from 1997 to 2018 were included in this review.

Due to the less availability of the articles on the specific Homoeopathic and Ayurvedic faculty information need, usage and their use pattern, Dr. S. R. Ranganathan's APUPA pattern has been used to collect the literature to the related topic. This review paper has been studied to the faculty, which are the medical practitioners, which in this context will include all medical practitioners of all the system of medicine. The table 1¹⁻⁴⁰ provides a evaluation of the studies selected for this review. Name of the researcher, year, country/city, research methodology utilized, active participants in the research are detailed.

Information Needs of Faculty:

Information needs refers to individual needs of users reading information, which should be satisfied by the information system used by him. (Chavan, 2015)²⁷. Teachers as doctors are constantly required to develop new clinical skills that subsequently need to be taught to medical students and junior doctors. So the faculty of every medical stream need a working knowledge of medical information resources to incorporate information resources into case studies and the teaching texts. It is understood by the librarians and the information specialists, that the medical practitioners or faculty need more and more information for their clinical work. (Davies, 2007)⁸

Teaching in the medical profession requires update knowledge of how to motivate the learner, assess ability, give positive feedback, teach multiple trainee levels, and the skill to deal with competing demands of patient care, research and education. Teachers as doctors are constantly required to develop new clinical skills that subsequently need to be taught to medical students and junior doctors. They need information for personal need, professional needs and the various approaches to acquire the required information include current approach, every day approach and the exhaustive approach.(Kumar)³³

As per the study of Padmaja, Chatterjee, Kaur and Fareed,^{21,6,38,16} faculty need more information for research work, for preparing class lectures, seminars, for writing and presenting paper and for updating knowledge. Whereas only the physicians who are not the faculty they need information for more in-depth learning, clinical decision- making in different cases (Brennan, 2014)²² Khursheed³⁵ found that medical faculty need more information for case studies. Umesh stated that health practitioners need to be in constant touch with new discoveries in the health practice. Because they are responsible for improving the principles of health by identifying and preventing the disease and curing of those disorders for which treatment exists.³⁴

Table no.1 Comparison of studies selected for this review

Study Author/ Year	Country/ City	Research Method	Doctors professional Role	No.of active participants
Curtis et al.,1997 ¹	Chicago	Questionnaire	Faculty of Medicine, Nursing and Pharmacy	1131
Groote & Dorsch, 2003 ³	Chicago	Electronic Survey	Health Science Faculty	188
Bryant, 2004 ⁴	Aylesbury Vale	Interview & Group Discussions	General Practitioners	58
Renwick, 2005 ⁵	West Indies	Electronic Survey	Health Science Faculty	153
Chatterjee et al., 2006 ⁶	Kolkata	Questionnaire	MBBS Faculty	107
Tenopir et al., 2007 ⁷	US	Questionnaire	Pediatricians	666
Callen, 2008 ⁹	Mongolia	Questionnaire	Hospital Doctors	229
Trivedi/ Joshi, 2009 ¹⁰	Gujrat	Questionnaire	Doctors	194
Hider/ Griffin, 2009 ¹¹	New Zealand	Electronic Survey	Doctors	518
Davies, 2011 ¹³	US, Canada & UK	Electronic Survey	Physicians	796
Shpilko, 2011 ¹⁴	New York	Questionnaire	Nutrition, Food& Dietetics Faculty	29
Khatri/ Gudadhe, 2013 ¹⁵	Buldana (M.S)	Questionnaire	Ayurvedic Faculty	30
Farid/ Abiodullah, 2013 ¹⁶	Lahore	Questionnaire	MBBS Faculty	112
Siamian/Yaminfirooz 2013 ¹⁷	Iran	Questionnaire	Dentistry & Nursing Faculty	113
Lee, 2013 ¹⁸	United Kingdom	Electronic Survey & Interview	Physicians & Surgeons	3785
Singh & Kumar, 2013 ¹⁹	Ludhiana	Electronic Survey	Veterinary Faculty	62
Tyagi & Passi, 2013 ²⁰	India	Questionnaire	Doctors	193
Padmaja/Kishore, 2014 ²¹	Tirupati	Questionnaire and Interview	Ayurvedic Faculty and PG Doctors	146
Brennan/ Edwards et al., 2014 ²²	UK	Diaries and Interview	Doctors	46
Mahapatra, 2014 ²³	Bhubaneshwar	Questionnaire	Physicians	176
Groote et al., 2014 ²⁴	Chicago	Electronic Survey	Health Science Faculty	198
Nagaraju et al., 2014 ²⁵	Chandigarh	Questionnaire	Nursing Faculty	25
Boruff & Storie, 2014 ²⁶	Canada	Electronic Survey	Health Science Faculty	382

Chavan/ Kadam, 2015 ²⁷	Kolhapur District	Questionnaire	Ayurvedic Faculty	Not stated
Sinha/Shetty, 2015 ²⁸	Southern India	Questionnaire	Ayurvedic Doctors	140
Sivakumar/ Batcha, 2015 ²⁹	Chennai	Questionnaire	Medical Faculty	850
Manhas et al., 2015 ³⁰	Punjab	Questionnaire	Physiotherapy Faculty	64
Nwafor-Orizu et al., 2015 ³¹	Nigeria	Questionnaire	Doctors in Teaching Hospitals	1417
Kumar & Naveen, 2016 ³³	Andhra Pradesh	Questionnaire	Veterinary Faculty	45
Umesh/Divyandanda 2016 ³⁴	Bangalore	Questionnaire	MBBS Faculty	718
Khursheed, 2016 ³⁵	Lucknow	Questionnaire	Medical Faculty	70
Mikalef et al., 2017 ³⁷	Greek	Questionnaire	Doctors	303
Kaur/ Kaur, 2018 ³⁸	Amritsar & Pathankot	Questionnaire	Medical Practitioners	76
Kumar et al., ⁴⁰	Bangalore	Questionnaire and Interview	Dental Science Faculty	215

Differences according to the type of Physicians:

Among all the review four of the studies focus on the Ayurvedic faculty usage pattern. Two of the studies are from Maharashtra state, one from Karnataka and one from Southern India. ^{15,21,27,28} It is identified that these studies may not be relevant for other professional groups of doctors or faculty. (Davies) As a profession of doctor from different stream, in all the studies there are similarities in the results. Their first priority for searching the information is for clinical decisions, patient care ⁸ and to update themselves with the current inventions.

Information Use Pattern:

Information Resources Use Pattern According to the Purpose:

Library users are continuously imparting the information as per their requirement. They are having different types of demands and expectations and every user have different purpose. (Khatri)¹⁵ There were two main reasons behind the selection of information resources by doctors, which were ease of access and quality of information.^{8,4} Uk and US physician reported that they use information for rare diseases and syndromes all the time.¹³

The study by Fareed ¹⁶ on Public and private medical faculty 62% use information for doing research work, 64% updating knowledge, 60% preparing class lectures, 48% writing and presenting paper. Physicians were involved in activities that generate information which is, discussions with the professional colleagues and participation in conference and seminar provide a lot of inspiration . 89% of Physicians collect information for day to day diagnosis of diseases.

Mahapatra²³ Faculty of medicine 77.6%, nursing 86.4% and pharmacy 91.7% visit library largely to refer or take the printout of the article from the print journals. Some of the faculty used their personal subscription for their study, because library is not providing the copies of the e-journals. (Curtis, 1997)¹ In the study of Groote³ the main reason for article search were for research purpose 90%. A study by Brennan²² found that few doctors selected not to access information during patient consultation as it shows lack of knowledge. Sivakumar²⁹ found that 54 % of medical professionals spend their time in libraries for searching the information. Doctors have a tendency to seek more systematic and empirically grounded medical solutions to minimize the elements of risk in their medical decisions.(Mikalef, 2017)³⁷

Barriers to Information Searching:

Electronic information resources which were easy to access, they mainly need a password. But the usernames and passwords constituted a main barrier. Doctors were under more time pressure. Medical textbooks perceived as harder to access than e-resources, because they are heavy to carry and expensive to purchase.³⁵ A online study of physicians in three countries by Davies,^{13,31} have given main three barriers to access e-resources: too much time to search, too much information which is not clinically relevant, and lack of easy access to e-resources and Unfamiliarity with search methods.⁴⁰

Location of Library from the hostel and academic block and lack of training were also indicated the greatest barrier to access the library resources.¹¹ Time is the key barrier to information search. (Davies 2007)⁸ In the study 69% felt time were an issue. Too much time to search is still the main barrier to access the e-resources.Davies¹³ whereas the Siamian¹⁷ study expressed the low speed of internet service as the major reason of faculty members of Babol university for their dissatisfaction. The faculty survey revealed that major barriers to open access publishing were related to poor ICT infrastructure, lack of awareness about OA issues, copyright issues and plagiarism.(Lwoga)³² Lee study mentioned a lack of awareness of the clinical library, clinicians expressed that CL were not easy to use because CL is a virtual library of books, journals, drug information and patient information.¹⁸

Utilization of Information Sources:

Use of Print Resources:

Padmaja, Fareed, Shipko^{21,16,14} in their research found that, majority of the Ayurvedic faculty using the library resources for gathering professional information. Faculty considered textbooks, journals, medical databases/e-resources, seminar, conferences, workshops, libraries and colleagues are more important than research reports and information centers.³ Whereas Kolhapur District Ayurvedic faculty do not know about how the library could help them. Faculty is not able to use the library effectively because they do not know what exactly to be expecting from the library.(Chavan)²⁹

To seek information and new knowledge 79.5% of medical faculty discusses with colleagues⁹ and they highly use reviewed articles. Majority of medical faculty get information from textbooks and reference books. Fareed, Mahapatra, Nagaraju^{16,23,25} The faculty of private medical colleges is more open to share their knowledge as compare to faculty in government run medical colleges. Whereas the Lucknow³⁵ medical university faculty ranked books 60% and journals 51% top the list of most frequently used print resources. Rural practitioners have a tendency to use textbooks more than journals, less access to libraries, less use of online

databases.(Dorsch,2000) ² Scholarly journals (both print and electronic), books or book chapters were used on daily basis by the nutrition, food science and dietetics faculty.^{14, 19}

Use of Computer, Internet Resources and e-database:

Fourteen research studies show the information communication technology usage to access e-resources. The computer invention is a blessing for everyone who is working at various levels. Being a computer generation so many medical software's are available. Software covers large data base which make very easy to find the remedy for patient care, which make to work easy for the doctors/faculty. Healthcare practitioners are largely dependent on easy access.(sinha)²⁸ Software covers all the required source books which are available in single software. Instead of carrying so many books with them they can keep single software with them. During the study duration library books are most important, but when the time comes in practice software's are the major tool for ready reference only.¹ In the study of padmaja²¹ 82.19% of the Ayurvedic faculty use Internet and E-resources.

As per the study of Sinha 56% of the Ayurvedic doctors also have a very good knowledge of the computer and the exposure to information management system for patient care, education, research and reporting purpose. Because they have given the short-term training on use of computer and various HIT applications.²⁸ Use of e-journals is an advantage that cannot be offered to a printed version. (Trivedi, 2009)¹⁰ Lee study of United Kingdom clinical virtual library found that majority of the clinicians are seeking evidence to support decisions about patient care. Due to the extensive search service and information skill training by library clinicians uses only the web-based resources successfully.²⁰ whereas the study by khatri found while the personal interview with the faculty members, that the college library didn't have any facility for using internet and any type of database subscribed. They access the internet and e-resources of Ayurvedic medicine at home (Khatri).¹⁵

In the study of Groote ²⁴ the e-resources utilized were MEDLINE (78%), Google scholar (43%), UpTo-Date (4.8%), MD Consult (44%) and the PubMed (45%). The Curtis¹ study found faculty accessed MEDLINE (68%). Faculty access to a number of MEDLINE formats: Grateful Med, OCL's FirstSearch, SilverPlatter CD-ROM, Librarian-mediated searching and print Index Medicus. A survey by Groote 2003³ on use of computers and internet by faculty, 66% has convenient access to the internet from office and home. 76% used a computer daily, 18% weekly and 5% monthly.93% faculty searched the online databases and 53% for MEDLINE. The other databases showed lower usage like MD Consult, CINAHL, Current Contents, PsycINFO, Web of Science and EBM-Evidence- Based Medicine.

An electronic survey by Boruff²⁶ of faculty of four Canadian universities on use Smartphone's and other mobile devices to find information. 92% of the faculty use their mobile device, 71% participants owning an iphone or iPod Touch and 42% use iPad. 42% use both smartphone and a tablet. A survey of West Indies medical science faculty by Renwick⁵ found that 97% use computers, 79% use e-resources for both professional and personal research and 38% for recreation. The internet resources used were Web 79%, email 67%, search engines 59%, online databases 67%, PubMed 65% and online journals45%. There was low usage of email discussion lists.⁷

In a study by Umesh ³⁴ the highest 98% of respondents use computers to access web resources, 13% use e-book reader, 53% laptop and 37% use mobile phone/tab to access web resources. Manhas³⁰ study reflected that 86% of Physiotherapy faculty not having any formal

training of computer, they have learnt by other methods. 49% use Medline & PubMed, 30% CINAHAL Plus and 21% use HSLIBNET e-journal consortium to access e-resources.

Conclusion:

As per the review of the articles, it is found that the research has been done to find out the information needs, usage and their use pattern. User studies of Homoeopathy faculty are not yet done by any researcher. (Verma,³⁹) There are less studies on Ayurvedic faculty too, compared to the other stream of faculty. Today uses of print resources along with e-resources have become an essential part of every doctor's clinical practice. It is concluded that ICTs have highly influenced the information gathering habits of medical faculty. Though, still there should be research on information use pattern of Homoeopathy and Ayurvedic faculty.

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