

INFORMATION SEEKING BEHAVIOUR OF DOCTORS OF PRIMARY HEALTH CENTRE IN ROHTAK DISTRICT OF HARYANA, INDIA

Amit* Dr. Satish Kumar Malik **

* **Research Scholar,**
Department of Library &
Information Science,
Maharshi Dayanand
University, Rohtak,
Haryana, India

** **University Librarian**
Maharshi Dayanand
University, Rohtak,
Haryana, India

QR Code



Abstract: *The present study was investigated among the doctors of Primary Health Centre of Rohtak division of Haryana to assess the main reasons of information needs, the information sources available, factors that influence the use of information, format of sources that meet clinical needs, and the barriers to accessing information. For which the survey method has been applied to collect and analyze information by questioning individuals who are representative of the research population. The study reveals that the main reason for the information requirements of doctors is to maintain patient records which are also available as a source of information and also find that credibility is a major factor that influence the selection and use of information sources.*

Key words: Information Seeking, Information Needs, Doctors, Primary Health Centre

1. INTRODUCTION

Today, if we talk about information, then its involvement is in every stage of life from personal to education, health, and business. There is no field in a human activity where information is not a component. The academic institutions, administrators, policymakers, planners, economists, doctors, scientists, etc. are largely dependent on the information. The right information is essential to the success of an

organization and it is believed that the right information at right time improves the decision making and enhances efficiency to the organization (Kaye, 1995). Different people have different information needs and different search practices (Hamad, 2018). The information requirements of physicians are enormous at the point of care including refreshing, confirming, logistics, teaching, idea-generating, and personal learning (Maggio et al, 2014).

However, the responsibilities of health professionals can never be completed without the information. Medicine is a knowledge-based profession and experienced doctors are using approximately two million information to manage the patients. Textbooks, magazines, and other existing information tools are not sufficient to answer the questions arising in daily practice and computer systems may not match with the information needs of doctors, so they are not widely used. Therefore, to meet the information needs of doctors, new information tools are needed that can incorporate medical knowledge and patient records with easy availability and accessibility (Smith, 1996)

2. Background of the Study

The core ingredient of the social health sector is the health care system. "Health systems include all the activities whose primary purpose is to promote, restore or maintain health. People typically come into direct contact with a health system as patients, attended by providers, only once or twice a year. More often their contact is as consumers of non-prescription medications and as recipients of health-related information and advice." (WHO 2000). A health care system is an organization of people, institutions, and resources whose primary purpose is to promote and maintain health. It includes a wide range of individuals and institutions, which provide appropriate health services to the human community.

Haryana state is located in northern India and spread over 44,212 sq km and consists of 22 districts. These districts are divided into 6 administrative divisions namely; Ambala, Karnal, Hisar, Rohtak, Gurgaon, and Faridabad division. This study has been done in the Rohtak division of Haryana state. At present, the Health Department is providing quality health care services in the Rohtak division through a network of 628 sub-centers, 122 Primary Health Centers (PHCs), 30 Community Health Centers (CHCs), 5 District Hospitals, and 1 Health University.

3. Review of Related Literature

Various studies have been conducted to investigate the needs and seeking behavior of various categories of users of information systems around the world. (Van et al. 2020) carried out a systematic review to analyze the attitudes of family doctors' needs for primary care. (Lopez, 2020) has tried to highlight the need for psychiatric through research and confirmed that the main need of psychiatrists for information is clinical practice. (Zimmerman, 2020) describe the analysis of the literature on health information from 2007 to 2017. (Singh et al., 2018) conducted a study on affecting factors revealed that the use of knowledge is the most important element in the knowledge-seeking attitudes rather than the effort made to access knowledge. (Newman, 2017) has tried to explore the perceptions of collaborative information seeking. (Callahan, 2015) has tried to understand the information-seeking behavior through online evidence sources.

Previous studies show that doctors need different types of information to provide qualitative services in the health sector.

4. Objectives of the Study

The main objective of the study is to investigate the information-seeking behavior of doctors of Primary Health Centre. The specific objectives of the study are as follows:

- To identify the main reasons for the information needs of doctors.
- To assess the information sources available in PHC.
- To find out the factors that influence the use of information.
- To identify the format of sources that meet clinical needs.
- To explore the barriers to accessing information.

5. Research Methodology

The study is mainly concerned with the purpose of identifying the information-seeking behavior of doctors of Haryana state. For which the survey method is applied to collect and analyze information by questioning individuals who are representative of the research population. Questioning has been done through a well-structured questionnaire. A total of 50 questionnaires were randomly distributed to the respondents and only 43 responses were received back having a response rate of 86%. After discarding some incomplete questionnaires, the

final data consist of 39 questionnaires that were suitable for the analysis process.

6. Data Analysis

6.1. Gender-wise distribution of respondents

Sex	No. of Response	Percentage
Male	27	69.2%
Female	12	30.8%
Total	39	100.0%

Demographic details include the gender-wise distribution of the respondents. These details are analyzed with frequency. Table and figure 6.1 show the gender-wise distributions of the respondents. In the present study, 27 (69.2%) respondents are male and 12 (30.8%) are female out of 39 respondents. So it is indicated that most of the respondents are male as compared to female respondents.

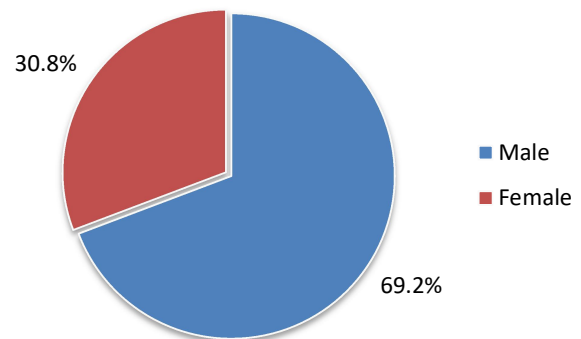


Figure 6.1: Gender-wise distribution of respondents

6.2. Reasons of information needs of the respondents

Reasons of Information needs	No. of Response	Percent of Cases	Percent
Maintain patient record	39	100%	41.05%
Improving clinical decision	17	43.59%	17.89%
Improving knowledge	13	33.33%	13.68%

Answering colleagues' question	11	28.21%	11.58%
Specific patent problem	4	10.26%	4.21%
Medical diagnosis, ailments, and treatment choices	4	10.26%	4.21%
Continuing education	4	10.26%	4.21%
Others	3	7.69%	3.16%
Total	95	243.59%	100%

The types of reasons of information needed of doctors are presented in the table and figure 6.2. This is shown in order of priority and indicates that all the respondents (100%) feel that maintain patient record is the top-ranked reason followed by improving clinical decision (43.59%), Improving knowledge (33.33%), Answering colleagues' questions (28.21%), specific patent problem, medical diagnosis, ailments, treatment choices and continuing education (10.26%). Only (7.69%) of the respondents indicated any other reason for information needs.

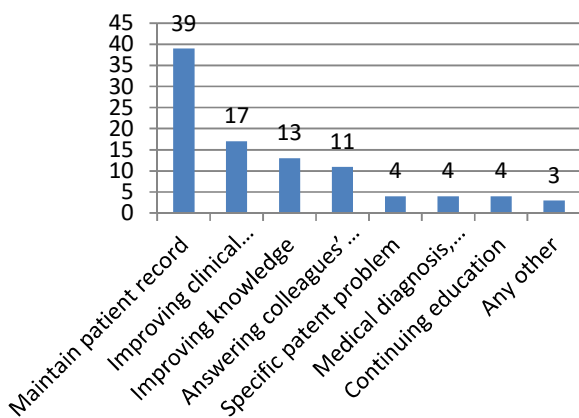


Figure 6.2: Reasons of information needs of the respondents

6.3. Information sources availability indicated by the respondents

Information Source	No. of Response	Percent of Cases	Percent
PHC records	39	100%	37.9%
Clinical manual	11	28.2%	10.7%
Medical journals/books	14	35.9%	13.6%
Online resources/ internet	19	48.7%	18.4%
Consultants/senior doctors	13	33.3%	12.6%
Others	7	17.9%	6.8%
Total	103	264.1%	100%

Respondents were asked to identify the types of information sources that are currently available to them to provide the best care to the patient in the PHC. Table and figure 6.3 presented the response and indicated that the PHC records are chosen as the first source of information by (100%) of the respondents that are currently available in PHC and followed by online resources/internet (48.7%) medical journals/books (35.9%) clinical manuals (28.2%) consultants/senior doctors (33.3%) and any other (17.9%). These findings are consistent with previous studies that Information is sought from various sources depending on the nature of the reason for information (Eriksson, 2008).

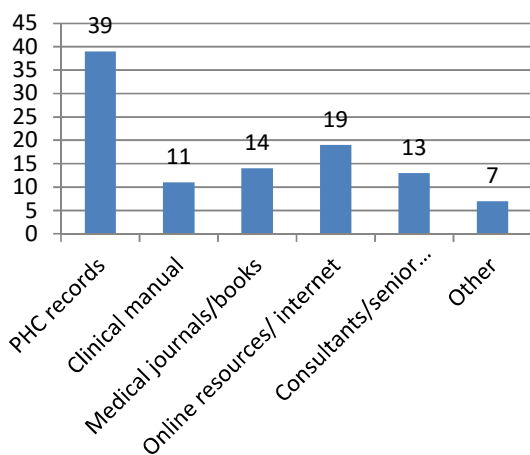


Figure 6.3: Information sources availability indicated by the respondents

6.4. Factors that influence the use of information sources

Factor	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Score	Weighted Mean	Overall Rank
Availability	21	11	7	0	0	170	4.36	2
Easy to use	9	19	2	5	4	141	3.62	4
Accessibilit y	17	18	4	0	0	169	4.33	3
Credibility	17	22	0	0	0	173	4.44	1
Others	0	0	0	6	5	17	0.44	5

Table and figure 6.4 indicate the rank of various factors which are responsible for affecting the way of information seeking. In this question, the interview asks respondents to rank in order of importance and found that the most common factor that might influence the respondents (mean=4.44) to use information is the Credibility of resources. Other common factor are availability

(mean- 4.36), accessibility (mean = 4.33), easy to use (mean = 3.62) that influence the respondents. The other factors (mean =0.44) contribute less towards influence the use of information. According to Zozus (2019), the quality of information is prominent among the factors influencing a physician's use of the information charted by other factors and the result of the study is also similar to Singh (2018) the usefulness of knowledge is the most important element in the knowledge-seeking attitudes rather than the effort made to access knowledge and Kaur (2018) indicated that the reliability and familiarity of the source is the most influential factor that affects the way information is sought.

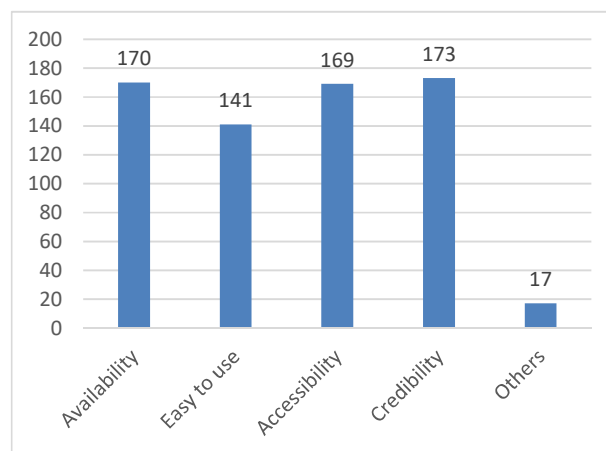


Figure 6.4: Factors that influence the use of information sources

6.5. Format of sources that meet clinical needs

Information Sources	No. of Response	Percentage
Print Sources	5	12.82
Electronic Sources	11	28.21
Both	23	58.97

Table 6.5 shows which types of information sources format are best to meet the clinical information needs of the respondents. Both print and electronic sources are rated as the best sources by (58.97%) of the respondents. This is followed by the electronic source (28.21%) of the respondents, and (12.82%) of the respondents rated print sources. These findings are consistent with the Demergazzi et al, (2020) study, which found that respondents used both online and offline resources. When they need quick and easy information, they usually use online resources such as Google for general literature and PubMed for scientific literature. But when they need the information to learn in-depth, they use offline resources because they believe that offline resources provide more learning opportunities.

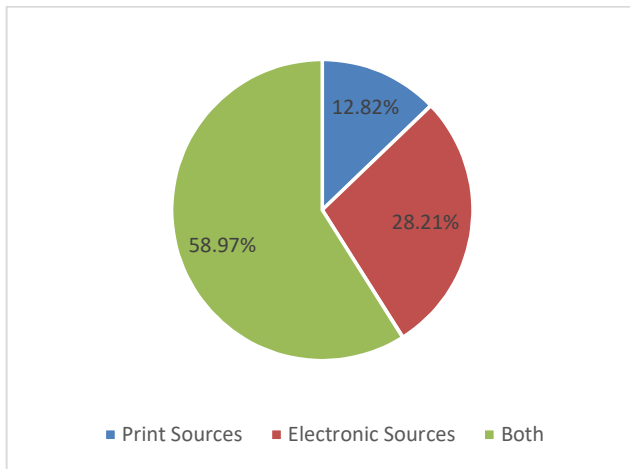


Figure 6.5: Format of sources that meet clinical needs

6.6. Barriers to accessing information

Barrier	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5	Score	Weighted Mean	Overall Rank
Lack of time	36	3	0	0	0	192	4.92	1
Limited search skills	0	15	21	3	0	129	3.31	3
Cost	2	9	25	3	0	127	3.26	4
Issues with IT or online resources	3	12	24	0	0	135	3.46	2
Lack of interest or urgency	0	4	32	0	3	115	2.95	5

Table 6.6 shows the rank in order of major barriers faced while accessing information resources by the respondents are lack of time (mean= 4.92), issues with IT or online resources (mean= 3.46), limited search skills (mean= 3.31), and cost (mean= 3.26). Another barrier that was faced to a little less extent is lack of interest or urgency (mean=2.95). Daei’s (2020) and Laki’s (2016) studies also show the same that time constraints, lack of information-searching skills, and lack of access to a computer among health care providers as major barriers to accessing health information.

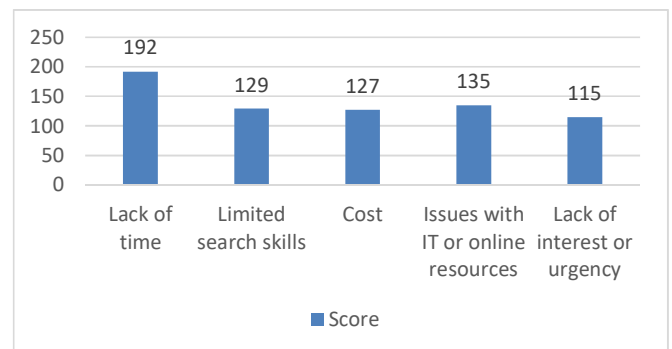


Figure 5.6: Barriers to accessing information

7. Conclusion

The main objective of this paper is to explore the information-seeking behavior of doctors and information-seeking behavior is “the purposive seeking for information as a consequence of a need to satisfy some goal” (Wilson, 2000). Doctors have various purpose for seeking information and maintaining patient records, improving clinic decisions and increasing knowledge are primary among these. They use a variety of information sources such as PHC records, clinic manuals, books, the Internet, and peers to accomplish these purposes. But the credibility of the resources influences them to choose it. Doctors prefer both print and electronic formats to get the required information but time constraints are the main constraint for them. Based on the present study, the researcher suggests that there is a need for a common health information system that is reliable and also ensures 24/7 availability.

Reference

- Callahan, A., Pernek, I., Stiglic, G., Leskovec, J., Strasberg, H. R., & Shah, N. H. (2015). Analyzing Information Seeking and Drug-Safety Alert Response by Health Care Professionals as New Methods for Surveillance. *Journal of medical Internet research*, 17(8), 204.
- Daei, Azra et al. (2020). Clinical Information Seeking Behavior of Physicians: A systematic

review. *International Journal of Medical Informatics*, 139.

- Demergazzi, S., Pastore, L., Bassani, G., Arosio, M., & Lonati, C. (2020). Information Needs and Information-Seeking Behavior of Italian Neurologists: Exploratory Mixed Methods Study. *Journal of medical Internet research*, 22(4), e14979.
- Eriksson, Backa, K. (2008). Access to health information: perceptions of barriers among elderly in a language minority. *Information Research*, 13(4), 368.
- Hamad, F. (2018). Approaches to information architecture. In C. Urquhart, F. Hamad, D. Tbaishat, & A. Yeoman (Eds.), *Information systems: Process and practice*. London: Facet publishing.
- Kaur, A. & Kaur, S. (2018). Information seeking behaviour of medical practitioners: A study of majha region of Punjab. *International Journal of Information Dissemination and Technology*, 8(3), 166-169.
- Kaye, David. (1995). The importance of information. *Management Decision*, 33 (5), 5 – 12.
- Laki, Damian G. (2016). Factors influencing health information-seeking behavior among health care providers at health facilities in Tanga Region: a case study of muhef project. *Universal Journal of Public Health*, 4(6): 279-297.

- Lopez, Gerardo Ruiz. (2020). Information-seeking patterns of psychiatrists during clinical practice. *Health Information and Libraries Journal*, 37(1), 78-82.
- Maggio, L. A., Cate, O. T., Moorhead, L. L., van Stiphout, F., Kramer, B. M., Ter Braak, E., Posley, K., Irby, D., & O'Brien, B. C. (2014). Characterizing physicians' information needs at the point of care. *Perspectives on medical education*, 3(5), 332–342.
- Newman, K., Dobbins, M., Yost, J., & Ciliska, D. (2017). Information Seeking When Problem Solving: Perspectives of Public Health Professionals. *Worldviews on evidence-based nursing*, 14(2), 145–153.
- Singh, J. B., Chandwani, R., & Kumar, M. (2018). Factors affecting Web 2.0 adoption: exploring the knowledge sharing and knowledge-seeking aspects in health care professionals. *Journal of Knowledge Management*, 22(1), 21–43.
- Smith, R. (1996). What clinical information do doctors need? (Information in Practice, part 1). *BMJ (Clinical Research Ed.)*, 313, 1062–1068.
- Van Der Keylen, P., Tomandl, J., Wollmann, K., Möhler, R., Sofroniou, M., Maun, A., Voigt-Radloff, S., & Frank, L. (2020). The Online Health Information Needs of Family Physicians: Systematic Review of Qualitative and Quantitative Studies. *Journal of medical Internet research*, 22(12), e18816.
- WHO. (2000). Health systems: improving performance. Retrieved from https://www.who.int/whr/2000/en/whr00_en.pdf?ua=1
- Wilson, T. D. (2000). Human information behavior. *Special issue on Information Science Research*, 3(2), 49-55.
- Zimmerman, M. S., & Shaw, G., Jr (2020). Health information-seeking behaviour: a concept analysis. *Health information and libraries journal*, 37(3), 173–191.
- Zozus, Meredith N, Penning, Melody & Hammond, William E. (2019). Factors impacting physician use of information charted by others, *JAMIA Open*, 2(10), 107–114,