

# **Exploring and fostering the clinical information seeking behavior of medical practitioners: A Study**

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## **ABSTRACT**

*The purpose of the present study is to provide insight into information-seeking behavior among medical practitioners in the Lakhimpur district of Assam, followed by the emphasis on medical practitioners' skills in using online platforms for satisfying their information needs. The random (purposive) sampling method has been used for collecting the required information. Many research studies have been conducted in the past on information seeking behavior among faculty and students as the primary research topic. However, a review of the literature revealed that just a few studies have been conducted on information seeking behavior among medical practitioners in govt setup and private setups as a primary focus. Consequently, this research contributes new knowledge to this less-explored area of research. The Paper concludes with suggestions to strengthen the information seeking behavior among medical practitioners.*

**KEYWORDS:** information seeking behavior, medical practitioner, Lakhimpur, Assam

## **1. INTRODUCTION**

The modern era is one in which civilization is based on information, and knowledge is seen as the most important resource that leads to actual global betterment of nations. The ability to acquire information and use it to create new knowledge has thus become the most important skill that people need to have in order to succeed in constantly changing circumstances in the information economy that the 21st century has created (Adeogun, 2008). In this environment, the role of information has been seen as a crucial component of a person's academic and scholarly pursuits. In any event, it is understood that the success of academic and research efforts depends heavily on an individual's assessment of their information needs and information-seeking behavior.

To satisfy their information needs, users look for information from a variety of sources. Different people and groups seek information in different ways. There are several things that influence how people behave when seeking

information. We can include availability, accessibility, affordability, experience, etc. among all of these variables. We can analyze a group's information seeking trends by observing their information gathering behaviors in a certain field. Technology has significantly altered consumers' information-seeking behaviors. In this instance, medical professionals are not excluded. Medical practitioners employ technology in an honest manner. This paper attempts to investigate the information-seeking behavior of allopathic medical practitioners in the Indian state of Assam's Lakhimpur area. Information seeking behavior is a way through which one can studies the efforts and approaches made by the users to meet their information needs. Information seeking behavior is actually a deliberate action that someone adopts as a result of the need to achieve a certain goal. An individual can select manual or computer-based sources of information during the information-seeking process.

## **2. NEED AND SCOPE**

No one in today's age of information explosion can develop and exist without information. The information must be useful, timely, and effective. The medical industry is incredibly extensive and ingrained. Medical practitioners need to be aware of the most recent updates and innovations in their field on a global scale, including the most recent research, diagnostic methods, new technologies, etc. In order to understand the information-seeking behavior of medical practitioners in Lakhimpur district of Assam, India, this study was chosen.

## **3. A GLIMPSE ON LITERATURE REVIEW**

Amiri. P. & et al. (2022) did a study at Kerman University of Medical Sciences to understand the information-seeking behavior of 203 medical students (KUMS) towards Covid-19. According to the report, the internet and social media are the most popular information sources for medical students. About 66.3 per cent of participants were social media users who followed COVID-19 news. The study's findings also showed that among university students, information about COVID-19 health that has been posted on virtual social media is the most significant source. The study sheds insight on the spread of false information through social media.

Saalman. N.B.S & et.al. (2013) carried out a study among primary health care physicians in the District of Multan, Punjab, Pakistan. The purpose of this study was to assess the current state of clinical information availability at outlying government health facilities in the District of Multan, Punjab, Pakistan, and to describe the information-seeking behavior of primary care physicians. All medical professionals employed in Basic Health Units (BHUs), Rural Health provided these physicians complied with the specified standards. Centers (RHCs) and Tehsil Headquarters (THQs). The criteria comprised Health, Multan's Executive District Officer (EDO), who oversees the operation of health facilities. Data acquisition involved conducting a descriptive survey. A short questionnaire was created after reviewing the pertinent literature and assessing the state of the remote government health facilities in the Multan district. The findings of this investigation revealed that doctors only occasionally had access to medical librarians' and libraries' services. Even though print is the most popular format, 74 percent of respondents don't have access to a computer with an internet searching among primary care physicians for clinical information. The research summarized that physicians' obstacles to information searching include the lack of a medical librarian and medical a library which made it difficult to get the information one needed.

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McGettigan et.al. (2011) study shows that the most helpful way to learn about new drugs is to speak with pharmaceutical representatives and hospital experts.

Laila (2010), conducted a study among social science faculties and found that the departments mainly rely on books and periodicals. In comparison to formal sources, they use informal sources far less frequently. Books and journals are regarded as the most finding sources to satisfy their requirements. One of the unofficial sources Conferences, subject matter experts, and coworkers are accorded more weight than public servants and librarians.

Ranjan. et al. (2009), conducted a study on the information-seeking habits of medical professionals in a semi-urban South Indian town. The study's findings showed that many practitioners relied more on books and drug indices like CIMS and MIMS than on journals and the internet.

Bryant. S. L (2004) carried out a study among 58 general practitioners in Vale. The author used both group discussions and one-on-one interviews to gather data. The study found that Family doctors are driven to seek knowledge by needs resulting from a mix of personal traits and professional obligations. The main reason these GPs sought information was a requirement for problem-oriented information relevant to the management of specific patients. The preferred information source is still personal collections, with electronic sources coming in second. The study showed that the medical library is not widely used. The appointment of a practicing librarian and vocational training, however, had an effect on library use.

N.A. Ajayi (2004) conducted a study among medical students at Obafemi Awolowo University to evaluate information-seeking behavior and the use of the library. The study's goals were to ascertain if students sought current information and which sources, they most frequently used for it, as well as to assess how they perceived the need for locating clinical information. The study involved 500 medical students, among which 313 of whom were men and 187 of whom were women. The outcome demonstrates that studying and making copies of resources were the two most common uses of the library. Instead of using indexes or abstracts for recent material, the respondents turned to textbooks and handouts for up-to-date information. the concern is that pupils are not using library information resources to their full potential.

### **4. OBJECTIVES OF THE STUDY**

1. To ascertain how medical practitioners search out clinical information.
2. To give a summary of the current situation regarding the accessibility of clinical information to medical practitioners.
3. Making suggestions to satisfy the medical practitioners' pattern of clinical information seeking.

### **5. RESEARCH QUESTIONS**

1. What is the medical practitioner's pattern of searching out clinical information?
2. What is the current status of clinical information access to general practitioners in distant government hospitals?
3. What is the level of computer proficiency of primary care providers in seeking clinical information?
4. What suggestions are there to address the clinical information-seeking behavior of primary care physicians.
5. What advice is given to satisfy the clinical information-seeking behavior of medical practitioners.

## **6. RESEARCH METHODOLOGY**

The study was carried out in Lakhimpur district of Assam. We chose medical practitioners working in Lakhimpur district. Data are collected from Primary Health Care Centers (PHCs), CHCs, Subdivisional Health Centre (SDCH), and Lakhimpur Civil Hospital Headquarters and private practitioners which matched the inclusion requirements. The criteria include allopathic medical practitioners who work in government setup and private setup. After doing a pertinent literature review the major data for the current study is gathered through a close-ended questionnaire that is sent to medical practitioners. The necessary data was gathered using the random (purposive) sample method for sampling. Medical practitioners from PHCs, CHCs, Model Hospitals, Subdivisional Hospital, District Hospital made up the sample. In each hospital participants were chosen at random to complete the surveys. Total 136 questionnaires were thus given to the chosen participants. The study's goal served as the foundation for the data analysis and interpretation; the percentages estimated in the tables are based on the data from the questionnaires that were submitted. The primary information gathered were analyzed and interpreted by using Microsoft Excel 2010 software (Table 1). The data, which also included the frequency distribution, percentages, and standard deviations, were analyzed using descriptive statistics. The questionnaire employed a five -point Likert scale to collect the responses. In which 1 meant never, 2 meant rarely, 3 meant occasionally, 4 meant frequently, and 5 meant most frequently. Anonymity and confidentiality for the respondents were guaranteed.

**Table 1:** Medical practitioners' response rate

<b>Name of the hospital</b>	<b>No of questionnaire distributed</b>	<b>of Received questionnaire</b>	<b>Percentage</b>
PHCs	30	27	22%
CHCs	24	22	18%
SDCHs	20	18	15%
Model Hospital	6	5	4%
Civil Hospital	22	20	16%
Private Hospitals	34	31	25%
Total	136	123	100%

## **7. ANALYSIS AND INTERPRETATION OF DATA**

A total of 136 questionnaires which were distributed to subjects, 123 (90.44%) were returned. The valid responses were 123 (90.44%). Of the 123 respondents, 94 (76.42%) were male and 29 (23.57%) were female. 27 (21.95%) respondents were working in PHCs, 22 (17.88%) in CHCs and 18 (14.63%) in Subdivisional Civil Hospital, 5 (4.06%) in Model Hospitals, 22(17.88%) in District Civil Hospitals, 34(27.64%) in Private Hospitals. The age range of the respondents was wide; 30 (24.39%) were between the ages of 21 and 30; 21 (23.57%) were between the ages of 31 and 40; 31 (25.20%) were between the ages of 41 and 50; and 41 (33.33%) were between the ages of 51 and 60.

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### **7.1. Clinical information usage pattern**

Table 1.1 describes the result of respondent's information seeking pattern during clinical practice. Results shows that respondents were seeking clinical information 'most frequently' from internet ( $\mu$  4.67 $\pm$  0.55), 'From friends and colleagues' ( $\mu$  3.80,  $\pm$ 1.105), and from personal collection ( $\mu$  3.02,  $\pm$ 0.37). On the other hand, respondents were seeking clinical information 'rarely' from the local hospital library ( $\mu$  2.09,  $\pm$  0.53).

**Table 2:** Clinical information usage pattern

<b>Rank</b>	<b>Clinical Information Usage Pattern</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>
1	From Internet	123	4.67	0.55
2	From friends and Colleagues	123	3.80	0.57
3	From Personal Collection	123	3.02	0.37
4	From hospital Library	123	2.098	0.53

Scale:1 mean never, 2 mean rarely, 3 mean occasionally, 4 mean frequently, and 5 mean most frequently

### **7.2. Present status of clinical information availability**

Medical Practitioners were asked questions regarding their efficient access to information sources during clinical practices. Table 1.2 shows that respondents 'occasionally' had efficient access to information consultation with senior and junior Medical Practitioners ( $\mu$  3.27,  $\pm$  0.64). It is followed by 'frequently' efficient access to latest medical textbooks ( $\mu$  3.89  $\pm$  0.31), medical e-journal ( $\mu$  3.84,  $\pm$ 0.59), medical database ( $\mu$  3.81  $\pm$  0.64), Medical mobile App ( $\mu$  3.69,  $\pm$ 0.73). It is again followed by 'Occasionally' Medical Library ( $\mu$  2.13  $\pm$ 0.64), Evidence based Medicines ( $\mu$  3.44,  $\pm$ 1.27), online Open medical Resources ( $\mu$  3.28,  $\pm$ 1.19). It is followed by 'rarely' medical librarian ( $\mu$  2.19,  $\pm$ 0.61)

**Table :3** Present status of clinical information availability

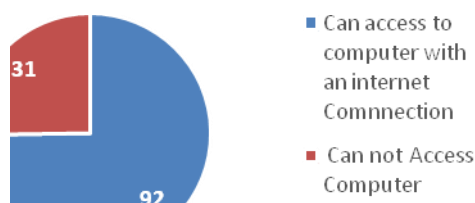
<b>Sl. No</b>	<b>Efficient Access to Information</b>	<b>N</b>	<b>Mean</b>	<b>Std. deviation</b>
1	Consultation with Senior and Junior Medical Practitioners	123	3.27	0.64
2	Latest Medical Textbook	123	3.89	0.31

3	Medical E-Journal	123	3.84	0.59
4	Medical Database	123	3.81	0.64
5	Medical Mobile App	123	3.69	0.73
6	Medical Library	123	2.13	0.64
7	Medical Librarian	123	2.19	0.61
8	Online Open Educational Resources	123	3.28	1.19
9	Evidence based Medicines	123	3.44	1.27

Scale: 1 mean never, 2 mean rarely, 3 mean occasionally, 4 mean frequently, and 5 mean most frequently

### 7.3. Access to a computer with internet

Figure. 1 describes the result of respondents’ access to a computer with an internet at their working hospitals. Out of 123 Respondents, 92(74%) respondents can access to a computer with an internet at their working hospitals while 31(25%) respondents can’t access to computer with internet.



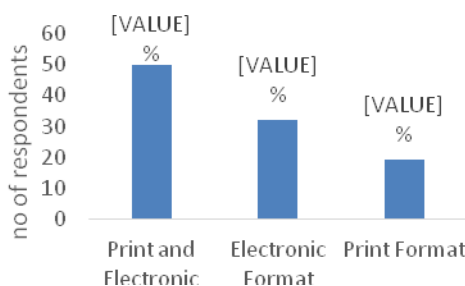
**Fig:1:** Access to computer with internet

### 7.4. Internet searching skills

Respondents were asked about internet searching abilities on internet Among 123 respondents, 70 (57%) said they lacked confidence when conducting online searches, whereas 53(43%) said they felt confident. However, 83 (67%) respondents utilized a clinical website/database/mobile App for clinical purpose once or more, compared to 40 (33%) respondents who never used one for that purpose.

### 7.5. Medical practitioners’ preferred format for seeking information

Among 123 respondents, 61 (50%) respondents’ preferred format of seeking information is ‘print and electronic format’ while 39 (32%) respondents’ preferred format of seeking information is ‘electronic format’ and 23 (19%) respondents’ preferred format of seeking information is ‘print format’.



**Fig: 2** Preferred formats for seeking information

## **DISCUSSION**

Knowledge and information about health are crucial for serving the community. The path to helping society may be hampered if health professionals do not receive the most recent and updated knowledge. As a result, there are needless variations in both the health of individuals and groups. The study's findings revealed that the majority of respondents lacked access to medical libraries and librarians, which is indicative of problems with the overall strategy for providing clinical information to primary care clinicians operating in inaccessible settings. According to Wensley (1999) and Gorman (2001), medical professionals who are working in primary setup and in far flung areas and who have little or no access to library services should be given important information resources that can lessen their sense of professional isolation. Asad, 2009; Revere, 2007; Martin, 1997; & Gonzalez, 2007 recommended that without upgrading their clinical knowledge, medical professionals cannot practice high-quality medicine. This can only be done through discussions and consultations with other medical professionals, as well as through the updating of the most recent and synchronized biomedical information through medical journals, online medical databases, websites and Mobile medical App. However, this study's findings revealed that primary care physicians lack regular access to consultants, senior physicians, medical journals, and internet databases. In their study, Kapiriri and Bondy (2006) came to the conclusion that medical practitioners and planners make judgments in remote settings with insufficient pertinent information. The findings of this study concur with those of other investigations. Bennett et al. (2004) and Hall et al. (2004) discovered that lack of sufficient information sources can create physician's incapacity to explore to answers to medical symptoms and compromised patient care. Present study illustrates the difficult issues associated with providing medical practitioners with the most recent clinical knowledge, which are comparable to studies by Turner et al. (2008), Ebell (2009), Dorsch (2000), and Ogbomo (2012). The dissemination of biomedical knowledge to medical practitioners working at primary set up has, however, been promised to be improved by information technology advancements, but these systems are still not widely used in Assam. However, by using internet and other internet-based platforms made it simpler to offer updated clinical information to medical practitioners practicing in rural locations which are both affordable and effective. Similar to this, medical librarians have the capacity to fulfil their duties successfully and close the gap left by inadequate sources by giving distant medical practitioners access to up-to-date clinical information.

## **9. RECOMMENDATIONS**

1. Every hospital should have medical library and librarians so that medical practitioners can avail library services to update their clinical knowledge base.
2. In remote hospitals network and internet connectivity needs to be enhanced.
3. Government should take initiatives to create an online clinical information system (OCIS). Medical practitioners serving in faraway areas ought to have access to a single portal where they may look up clinical data pertaining to specific clinical cases.
4. At every healthcare facility, equipment like computers, printers, scanners, and photocopiers should be provided.
5. Every medical practitioner working in the government or private health facility should receive training in computer usage and search techniques.



To better inform medical professionals, the health department and medical association may take action to publish health-related activities in the form of newsletters. These newsletters should include information about medical journals, medical databases, medical app and other online information resources.

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