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INFORMATION ACCESS AND USE PATTERN AMONG THE MEDICAL PROFESSIONALS OF CHENNAI CITY : A USER STUDY

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ABSTRACT

Information access and use pattern is a major topic in LIS research. Research on information seeking and use by professionals has been applied to a variety of disciplines such as law, education, engineering, and accountancy. Medical science depends on reliable and good information relates to the practice and theory. The role of information expert entails not only information gathering but also guiding users to it. The Doctors who practices in Chennai city might have different information needs due to the very different environments that they practice within. The different environments may result in differences in access to information sources and hence a difference in their information seeking behaviour. The purpose of this study is to investigate extent of information use in improving professional competencies among the medical practitioners of Chennai city. The study also focuses the information search pattern and its extent of use by the Medical Professionals. The findings of the study will lead to the areas in which the information dissemination is lagging behind and helps to improve those areas for maximizing the use of pooled information.

KEYWORDS: *Information use pattern, Information Access Pattern, Medical Practitioners, Chennai city*

1. INTRODUCTION

Information seeking and use is a major topic in LIS research. Research on information seeking and use by professionals has been applied to a variety of disciplines such as law, education, engineering, and accountancy. Medical science depends on having good information. Gbadamosi (2004) states that the performance of medical practitioners is contingent upon the sources and skill of medical doctors while searching for relevant information. The role of information expert entails not only information gathering but also guiding users to it. Akinade and Adedipe (1994) indicate that information seeking can be observed, recorded, and measured. Sharing of important information by people involved in health care services provides avenue to develop and share important information on preventive and curative measures.

Medical practitioners have researched other areas at the University of Ilorin Teaching hospital but not information seeking behaviour and its use. Ogunronbi, (2001) indicates that environmental factors and interests influence information seeking habits, practices, needs, and preferences.

2. REVIEW OF LITERATURES

Aina (2002), Salman (2002), and Popoola (2003) observe that information is the accumulated or cumulative knowledge obtained from different subjects in all forms and from all channels that can assist in rational decision-making. Information can also be used to solve problems arising from daily routines among professionals and make them more creative and innovative.

Tahir, Mahmood, and Shafique (2008) acknowledge that the knowledge of information needs and information-seeking behaviour of users is vital for developing library collections, upgrading facilities, and improving services to effectively meet the information needs of users. Electronic information retrieval systems are an important aspect of information seeking and use (Hjorland 2000).

Leckie, Pettigrew, and Sylvain (1996) posited that the primary focus of many nurses is patient care, a role that creates tasks requiring information deliverable in specific formats.

Akinade (2000) points out that the users of a medical library are predominantly people working in the fields of medicine, dentistry, pharmacy, nursing, biomedical sciences, and public health. Medical practitioners, in order to work together, require digital and electronic information.

Books, journals, audiovisual media, and other electronic resources can be used to disseminate information to professionals (Ogunronbi, 2001). Doctors' information needs, especially those related to patient care, may vary widely from one doctor to the other. Murray (1992) confirms that the use of the library increases with reasons of training and consultation with colleagues and decreases as doctors grow older. The use of various information sources is as a result of factors that include types of practices, specialty, location of practice, professional age, and the size of hospitals, as confirmed in the studies by Gruppen, Walf, Van Voorhees, and Stross (1987).

3. OBJECTIVES OF THE STUDY

The main objective of this study is to identify information sources that are relevant in the discharge of medical duties, including varying formats and characteristics of each to medical practice and practitioners. The study will include individual preferences of medical practitioners towards the approach to different medical information.

The specific objectives of the study are:

1. To investigate the information use patterns of medical practitioners in Chennai city.
2. To determine the frequency of visit to libraries by the medical practitioners of Chennai city
3. To identify the quantum of time spent in libraries for collecting professional information by the medical practitioners in Chennai city.
4. To determine the time spent in collecting information from the patients as in the case of consultancy.
5. To suggest possible measures to improve the quality and service in libraries of medical hospitals and medical colleges of Chennai city.

4. HYPOTHESES OF THE STUDY

1. Respondents do not differ in their frequency of using medical information.
2. There is no association between the experience of respondents and their use of library resources.
3. Respondents do not differ in their extent of time in consulting the patients and collect medical information.

5. ANALYSIS AND INTERPRETATION

Table 1 Analysis of Medical Professionals according to their type of Profession and Gender wise.

Sl.No	Type of Professionals	No. of Male Respondents selected	No. of Female Respondents selected	Percent of Respondents
1.	Consultant	174 (79.81)	44 (20.19)	218 (25.65)
2.	Resident Doctors	52 (57.14)	39 (42.86)	91 (10.71)
3.	Own Hospital	104 (43.70)	134 (56.30)	238 (28.00)
4.	Govt. Doctors	117 (63.93)	66 (36.07)	183 (21.53)
5.	Lab Scientists	38 (31.67)	82 (68.33)	120 (14.12)
	Total	**485 (57.06)**	**365 (42.94)**	**850**

Table 1 represents the analysis of medical professionals according to their gender. The total respondents taken for analysis in the present study are 850. Among them 57.06 percentages of respondents are from Male category and the remaining 42.94 Percentages are from Female category. The study has given more or less equal opportunity for both the Gender. The Medical Professionals taken for analysis are classified into five different Categories on par with their platform of employment. They are Consultant, Resident Doctors, Own hospital doctors, Government doctors, and Lab Scientists. Out of 5 Medical Professionals Own hospital Doctors' representation is high in the present study. They are calculated about 28 percentages. The next higher category of respondents is from consultants who reflect about 25.65 percentages. The less Number of respondents are from the category of resident doctors (10.71).

Table 2 Analysis of Medical Professionals according to their Years of Experience

Sl.No	Type of Professional	Below 5 Years	Above 5 and Below 10 years	Above 10 years	Total
1.	Consultant	34 (15.59)	57 (26.14)	127 (58.25)	218
2.	Resident Doctors	53 (58.24)	18 (19.78)	20 (21.97)	91
3.	Own Hospital	48 (20.16)	105 (44.11)	85 (35.71)	238
4.	Govt. Doctors	38 (20.76)	83 (45.35)	62 (33.88)	183
5.	Lab Scientists	32 (26.66)	52 (43.33)	36 (30.00)	120
	Total	**205 (24.11)**	**315 (37.05)**	**330 (38.82)**	**850**

There are 5 types of medical professionals taken for analysis they are consultants, Resident Doctors, Own hospitals Doctors, Government Doctors & Lab Scientists, Out of 850 Respondents Majority of Professionals fall in the experience scale of above 10 years. It is calculated about 38.82 percentage followed by 37.05 percentages of Respondents in the experience scale of above 5 and below 10 years. The Minimum Number of percentage professionals is observed with the experience of below 5 years.

While analyzing individual Professionals' experience it is noted that 58.25 percentages of consultants fall in the experience scale of above 10 years. The Maximum years of experience is found among consultants compared

to other professionals. The own hospitals doctors are observed with above 10 years experience at the next level. They are calculated to 35.71 percentages. In the case of above 5 and below 10 years scale own hospitals doctors are observed high in this category (4 In the case of above 5 and below 10 years scale own hospitals doctors are observed high in this category (45.35%) followed by Government doctors and Lab Scientists. The Less experience scale of below 5 years includes Majority of resident doctors followed by own hospital doctors and Government Doctors.

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Rows	1377.778	2	688.8889	7.095445	0.012071	4.102821
Columns	11552.44	5	2310.489	23.79767	.0029	3.325835
Error	970.8889	10	97.08889			
Total	13901.11	17				

For the above analysis two way anova is tested and the calculated p value is found less than table value so the framed null hypothesis of there is no association between the experience of respondents and their use of library resources is proved and accepted.

Table 3 Gender wise analysis on the frequencies of visit to Libraries by the Medical Professionals.

Frequency of library visit	**Male**	**Female**	**Total**
Every day	100 (52.63)	90 (47.36)	190 (22.35)
Once in a week	180 (58.06)	130 (41.93)	310 (36.47)
Once in a fortnight	170 (56.66)	130 (43.34)	300 (35.29)
Once in a month	20 (66.66)	10 (33.34)	30 (03.52)
Very rarely	15 (75.00)	5 (25.00)	20 (02.35)
Total	**485 (57.05)**	**365 (42.94)**	**850**

Table 3 focuses the Gender wise analysis on the frequencies of visit to Libraries by the Medical Professionals. There are about 57.05 male and 42.95 percentages of female Respondents are included in the present study. Out of 485 male respondents, 180 respondents are observed visiting libraries once in a week. Further 170 male Respondents use to visit libraries once in a fortnight. The next frequency noted among male respondent is everyday representing 100 Respondents.

In the case of female respondents, out of 365 of this category reflect that once in a week and once in a fortnight are the frequencies generally followed by female respondents. In both the frequencies 130 respondents are noted. About 90 respondents reveal that they are using library resources every day. Both the Gender has recorded less amount of respondent in the frequencies of once in a month and rarely.

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Rows	39500	4	9875	51.97368	0.001056	6.388233
Columns	1440	1	1440	7.578947	0.051217	7.708647
Error	760	4	190			
Total	41700	9				

For the above analysis two way anova is tested and the calculated p value is found less than table value so the framed null hypothesis of respondents do not differ in their frequency of using medical information is proved and accepted.

Table 4 : Analysis on quantum of time spent by Medical Professionals of Chennai city in Libraries.

Sl.No	Type of Professional	Half an Hour to 1 Hour	More than 1 Hour to 2 Hour	More than 2 Hour to 4 Hour	More than 4 Hour to 5 Hour	Total
1.	Consultant	133 (61.00)	80 (36.69)	04 (01.83)	01 (00.45)	218 (25.64)
2.	Resident Doctors	64 (70.33)	19 (20.87)	06 (06.59)	02 (02.19)	91 (10.71)
3.	Own Hospital	119 (50.00)	111 (46.63)	05 (02.10)	03 (01.26)	238 (28.00)
4.	Govt. Doctors	83 (45.35)	94 (51.36)	04 (02.18)	02 (01.19)	183 (21.53)
5.	Lab Scientists	61 (50.83)	36 (30.00)	11 (09.16)	12 (10.00)	120 (14.12)
	Total	**460 54.11**	**340 40.00**	**30 (03.52)**	**20 (02.35)**	**850**

Table 4 shows the analysis on quantum of time spent by Medical Professionals of Chennai city in libraries. The time span is analyzed in 4 point scale. Out of 850 total respondents about 54.11 percentages of respondents spend their time in libraries half an hour to one hour. The majority of respondents fall in this time span. Yet 40 percentages of respondents are found spending their time in libraries more than one hour to two hours. The next time spans in the table include less number of respondents.

The analysis of individual Professionals shows that out of 218 Consultants, 61.00 percentages of respondents spend half an hour to one hour in libraries followed by 36.69 percentages in the span of one hour to two hours. The tabulated data clearly shows that the medical professional highly spend half an hour to two hours in libraries for collecting information. These two frequencies are generally noted among all the professionals. The Lab scientists are alone found spending extended hours in collecting information from Libraries.

Table 5: Analysis on the Span of time taken for consultancy by Medical Professionals of Chennai city

Type of Professional	Less than 15 min	16 to 30 min	More than 30 min	Total
Consultant	85 (38.99)	78 (35.78)	55 (25.22)	218
Resident Doctors	36 (39.56)	37 (40.65)	18 (19.78)	91
Own Hospital	103 (43.27)	83 (34.87)	52 (21.84)	238
Govt. Doctors	117 (63.93)	36 (19.67)	30 (16.39)	183
Lab Scientists	33 (27.50)	53 (44.16)	34 (28.33)	120
Total	**374 (44.00)**	**287 (33.76)**	**189 (22.23)**	**850**

The table 5 shows analysis on the span of time taken for consultancy by medical professionals of Chennai City. Majority of the respondents reflect that they take less than fifteen minutes to make enquiries and collect information orally from the patients regarding their illness. It is calculated to 44.00 percentages. Some 33.76 percentages of professionals say that they require 16 to 30 minutes for consultancy with the patients. Yet some 22.23 percentages of professionals prefer more than 30 minutes for consulting the patients.

The analysis of individual category reveals the fact that Government doctors take less than fifteen minutes for consultancy. It is calculated to 63.93 percentages. It may be due to the reason that they have to give consultancy to more number of patients in limited time allotted to them. Own hospital doctors are ranked second in this minimum span of time. The resident doctors and Lab Scientists highly prefer 15 to 30 minutes for consulting the patients. The reason may be that they might be running polyclinic in which laboratories are attached for taking several tests. The lab Scientists alone spend more than 30 minutes for diagnosing the patients.

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Rows	2755.556	2	1377.778	6.179915	0.059781	6.944272
Columns	5710.889	2	2855.444	12.80787	0.018242	6.944272
Error	891.7778	4	222.9444			
Total	9358.222	8				

For the above analysis two way anova is tested and the calculated p value is found less than table value so the framed null hypothesis of Respondents do not differ in their extent of time in consulting the patients and collect medical information is proved and accepted.

6.FINDINGS AND CONCLUSION

Information seeking can be observed, recorded, and measured. Sharing of important information by professionals involved in health care services provides avenue to develop and share important information on preventive and curative measures. The purpose of this study is to investigate extent of information use in improving professional competencies among the medical practitioners of Chennai city. The study also focuses the information search pattern and its extent of use by the Medical Professionals. The findings of the study are as follows;

The findings on the analysis of Medical Professionals according to their type of Profession and Gender wise reveals the fact that Male category is observed more than female category. In the case of classification of respondents, the participation of Male gender is found high. Yet the female gender is observed high among the professionals of own hospital and Lab scientists.

The findings on the analysis of Medical Professionals according to their Years of Experience lights on the fact that majority of medical professionals taken for study have got above 10 years experience. Among the individual professionals, Consultants are highly found with the experience of above 10 years. The Lab scientists and government doctors are observed highly in the scale of below 5 years.

The findings on the analysis on gender wise analysis on the frequencies of visit to Libraries by the Medical Professionals brings out the fact that majority of male respondent make use of library resources once in a week followed by once in a fortnight. The female respondents equally prefer visiting libraries once in a week and once in a fortnight. The remarkable amount of respondents in both gender have the habit of visiting libraries every day.

The findings on the analysis of quantum of time spent by Medical Professionals of Chennai city in Libraries lights on the result that majority of respondents spend their time in libraries up to two hours maximum. It may be due to the reason that the medical professionals are always busy in their hospitals and Laboratories. The first two spans of time scale of half an hour to one hour and above one hour to two hours are the preferred time span found among the medical professionals. It is clear when the time span increases, the number of respondents decrease and vice versa. This statement is proved by the lab scientists and other professionals who fall in the maximum hours of time span with less number of data.

The findings on the analysis on the Span of time taken for consultancy by Medical Professionals of Chennai city focus the result that Majority of the medical professionals takes less than 15 minutes for diagnosing the patients and collect required information. The resident doctors and Lab Scientists spend more than 15 minutes for diagnosing the patients. The Consultants and Own hospital doctors spend maximum hours for exhaustive diagnosing and consultancy.

The role of information expert entails not only information gathering but also guiding users to it. The Doctors who practices in Chennai city have got different information needs due to the very different environments that they practice within. The findings of the study will lead to the areas in which the information dissemination is lagging behind and helps to improve those areas for maximizing the use of pooled information.

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