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## ORIGINAL ARTICLE

# Information Seeking Behaviour Of Clinicians In a Semi Urban Town In Southern India

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### ABSTRACT

**Background:** Newer drugs are entering market at a faster rate and information on medicines is expanding at a tremendous pace, making it difficult for clinicians to keep abreast. Drug Information Centers across world help clinicians in their information needs. Kasturba Hospital Drug Information center would like to extend its services to community based clinicians. Better understanding of clinicians' needs and preferences on drug information can help to serve them better.

**Objectives:** To study information-seeking behaviour of community based clinicians, specifically on drug information and their other related needs to improve quality of care for patients.

**Methodology:** An 11-item survey questionnaire was designed, based on Kirkelias model of information seeking behaviour. The survey questionnaire was distributed personally and filled questionnaires were collected.

**Results:** Fifty Seven filled questionnaires were collected back out of 60 questionnaires distributed. Only 18% of clinicians were found to use the services of Drug Information Centers. Clinicians use textbooks and drug indexes as their main references. Journals and Internet is not widely utilized. Majority of clinicians felt that information provided by pharmaceutical companies is biased and inadequate. Almost all clinicians felt that there is need for drug information service.

**Conclusion:** This study throws light on information needs and related issues of community-based clinicians in a semi urban town. This study highlights the need for independent unbiased source of drug information for clinicians practicing in communities.

**Key Words:** Information seeking behaviour; clinicians; South India

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### Introduction

The number of drugs approved by FDA has increased dramatically in recent years. The

average approval per year was 13.7 New Chemical Entities (NCEs) in sixties to 53 in nineties. When biological products and new dosage forms were added around 140 products were approved in a year [1]. At this rate of approval and new drug entry into market, it is difficult for any medical professional to keep abreast with new developments.

In the year 1962 first Drug Information Center (DIC) was established at University of Kentucky in United States for providing drug information to physicians and other health care providers. In the first formal

survey of DICs conducted in 1973, 53 centers were surveyed. In a recent survey conducted in 2004, 81 full time DICs were identified [2]. In India many DICs have opened in the last decade and currently about 15- centers are operating across the country[3]. This number may serve a miniscule of the actual need of country.

Information seeking behaviour of physicians is a subject of research in age of information explosion. Physicians seek information regarding various issues in medical care especially drug information [4]. Physicians use colleagues' and consultants' help, drug compendia, bound journals or computer-based resources for their reference [5].

In United States, virtually all physicians have access to Internet. Physicians in their day-to-day practice increasingly use computers. 80% of hand held computers are used for accessing drug information and may also be used for accessing electronic medical textbooks, downloadable journals, medical calculators and patient tracking programs[6]. When it comes to book 'Physician's Desk Reference' is the most commonly used resource by physicians in United States [7].

In Indian scenario, general practitioner may not have access to reference books or computer-based databases like their counterparts in developed countries. In India, physicians receive most of their information from pharmaceutical company representatives. Physicians in community generally do not have access to any Drug Information Centers. In hospital settings where DICs function, drug information need of physicians may be met. DIC of hospital where this author is based is well established and serves physicians of hospital well[8],[9]. This drug information center plans to extend its services to community-based general practitioners and specialists in a nearby town.

## Objective

This study was performed to assess the information seeking behaviour of general practitioners and specialists in a semi urban town of a south Indian state. Information seeking behaviour consists of preference of information sources, awareness and usage of drug information centers, their opinion on information provided by medical representatives of pharmaceutical companies, type of information needed by them if services are provided to them.

## Methodology

An 11-item survey questionnaire was designed based on Kirkela's model[10] of information seeking, which covered questions regarding awareness on functioning of Drug Information Centers at the State pharmacy council and Kasturba hospital, need for drug information services, references they consult, their opinion on information provided by medical representatives, commonly needed information on drugs (Appendix-I). The survey questionnaire was personally handed over to physicians by an investigator. The questionnaire was collected back usually on the next day after physicians had filled it up. Survey questionnaires were distributed to 60 General practitioners and specialists of a semi urban town, out of which 57 questionnaires were collected back, 3 questionnaires could not be collected back due to non-availability of physicians. Out of 57 clinicians, majority of them were General Medicine practitioner [25] followed by General Surgeons [12], other specialties [13] and dentists [9] (Table/Fig 1). The collected data was then analyzed to get physicians' opinion on various issues in questionnaire.

**Appendix I**  
**Questionnaire For Study**

1. Are you aware that one of the professional responsibilities of a pharmacist is to provide Drug Information?	Yes	No
2. Are you aware that Karnataka State Pharmacy Council has a Drug Information center?	Yes	No
3. Are you aware of the functioning of Drug Information center in Kasturba Hospital, Manipal?	Yes	No
4. Have you ever utilized any of the above-mentioned Drug Information services for procuring information about drugs?	Yes	No
5. Do you feel there is a need for drug Information service?	Yes	No
6. If yes, do you think drug information services will help in?		
(a) Better patient care	Yes	No
(b) Updating Knowledge	Yes	No
(c) Educational/academic betterment	Yes	No
(d) All of the above	Yes	No
7. Whenever you have a query on drugs do you consult any specific resources?	Yes	No
8. If yes, which of the following do you consult?		
(a) Text books	Yes	No
(b) Journals	Yes	No
(c) Drug Indexes (CIMS, MIMS, etc)	Yes	No
(d) Internet	Yes	No
(e) Any other (pls specify _____)		
9. Do you think that product information provided by the medical representative is Biased?	Yes	No
10. Do you think the product information leaflets provided by the manufacturers is sufficient for drug Information?	Yes	No
11. What type of information would you need on drugs? (Please specify)		

## Results

For a question regarding awareness of physicians on the role of pharmacists in drug information provision 49(86%) responded affirmatively. Majority of clinicians were aware of the functioning of Drug Information Centers in the State pharmacy council (60%) and Kasturba Medical College (56%). Only 18% of physicians used the services of Drug Information Centers. For a question regarding need for drug information services 55 (97%) clinicians felt there is a need for such kind of services. Regarding the usefulness of drug information service, 49(86%) clinicians felt that such service will help in multiple ways by leading to better patient care, updating knowledge and academic betterment.

For doubts regarding drugs, 43 (75%) clinicians used Textbooks, 48 (84%) clinicians used drug indexes like Current Index of Medical Specialties (CIMS) or Monthly Index of Medical Specialties (MIMS). 20 (35%) clinicians used journals and 30 (53%) clinicians used internet. Internet and Journal usage was stratified according to various disciplines and analysed [Table/Fig 1]. 45 (79%) clinicians opined that product information provided by

medical representatives is biased and insufficient. Type of information sought by clinicians was adverse effects of drugs, dosage of drugs, drug interactions, new drug profile and indications. [Table/Fig 2]

(Table/Fig 1)  
**Internet And Journal Usage By Clinicians**

Disciplines	Total number	Internet usage No (%)	Journals usage No (%)
General Medicine	25	14(56%)	10 (40%)
Specialists*	13	8 (62%)	6 (46%)
General Surgeons	12	4(33%)	4(40%)
Dentists	9	4(44%)	-

\* Pediatrics, OBG, Dermatologists, Ophthalmologists

(Table/Fig 2)  
**Information Need Of Clinicians**

Type of information needed	No of Clinicians(%)
Adverse Reactions	22(39%)
Dosage of drugs	16 (28%)
Drug Interactions	12 (21%)
New drug profile	10(18%)
Indications	8(14%)

## Discussion

About 95% of filled questionnaires could be collected back. General Medical practitioners comprised majority of studied clinicians, the study area being community practice. Majority of clinicians opined that pharmacist has the responsibility to provide drug information. This shows the high level of expectation placed by clinicians on pharmacists. Many of clinicians were aware of the existence of DIC in Kasturba Hospital and Karnataka State Pharmacy Council, but only small percentage actually used the service, may be because of lack of communication between DIC and community based clinicians. Majority of clinicians felt that there is need for provision of drug information service. This reflects the non-availability of proper drug information through current avenues of drug information. In a study conducted in Singapore among physicians, it was concluded that there was need for enhanced Drug and Poison Information Service [11] and this may be a common requirement for clinicians everywhere.

Most clinicians used textbooks for information. Even though textbooks are good source of drug information, they are useful for basic information but not for advanced or latest information. Moreover books do not reflect current thinking as there is delay in publication of books and standards of medicine may change during this lag time [12]. Most physicians used drug Indexes like (CIMS), (MIMS), etc. Since Indian market is a branded generic market with more than 60,000 products [13], there is compelling need for clinicians to use these indices to keep up with brands of products available in market. This pattern also fits with the kirkelas model which states, "When faced with uncertainty a person will be comfortable in using internal resources (text books, Drug indices) rather than depending on unknown interface (DIC, Library journals etc.)".

Less than half of the clinicians use Journals for their information needs. Usage of Journals by clinicians across disciplines remains low. This shows that majority of clinicians are not having or using one of the important avenues to update themselves on current issues. Around half of the clinicians use Internet for their information needs. When studied according to disciplines specialists and general medical practitioners used Internet more frequently than general surgeons and dentists. This may be because drug usage by surgeons and dentists might be comparatively less.

In US almost all physicians have access to Internet and increasing number of physicians use handheld computers for information retrieval and because of this the rate of preventable adverse reactions has come down. This shows need for incorporation of technology in practice by the clinicians so as to achieve better patient care.

45 (79%) clinicians felt that information provided by pharmaceutical companies is biased and inadequate. This shows the level of faith physicians have on pharmaceutical companies and reinforces the idea that there

is a need for independent, objective source of drug information. Physicians would like to receive information on adverse drug reactions, drug interactions, dosage, indications and new drug profile. This shows that physicians are not satisfied with information currently available to them and availability of such information from an objective source will help in better patient care.

## Conclusion

This study was conducted to understand the information seeking behaviour of physicians in a semi urban south Indian town. 57 clinicians gave their opinion on various issues regarding drug information. Almost all clinicians felt that there is need for drug information service. Clinicians use textbooks and drug indexes as their main references. Journals and Internet are not widely utilized. Majority of clinicians felt that the information provided by pharmaceutical companies is biased and inadequate. This study highlights the need for independent unbiased source of drug information for the clinicians who are practicing in community.

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