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Health awareness through Information Communication Technology (ICT) in five medical college library in Kolkata

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ABSTRACT

In the present era, information has become the most important element for progress in the society. Adequate health information, proper advice and support about treatment are necessary components for patient care. The huge growth of health information due to ongoing development of research work, both in electronic and textual format and the rapid advancement in the communication technologies have transformed the mode of information services, delivery and usages. Individuals are required to access this free flow of huge and effective health information in a proper manner. The role of medical librarian and information professionals are important to disseminate the information and distribute it through proper channel of communication. The paper allows to covey the messages on the rapid development of ICT and its impact on the medical libraries in Kolkata.

Keywords: Information Communication Technology (ICT), Information, Education and Communication (IEC), Health information, Medical library

INTRODUCTION

In the present era, information has become the most important element for progress in the society. High quality information products and services are essential components of public health programs. Accurate communication of emerging scientific and programmatic evidence and the practical assessment of its implications are vital to health care practitioner and policy makers. Health communication encompasses the study and use of communication strategies to inform and influence individual and community decision making that enhance health. It can contribute to all aspects of disease prevention and health promotion and is relevant in a number of contexts (Adeyoyin S, 2005).

- Health professional-patient relations.
- Individuals' search for and use of health information.
- The construction of public health message and campaigns.
- The education of consumers about the knowledge to gain access to public health and health care system.

Effective health communication occurs in a variety of contexts through a variety of channels (interpersonal, small group, mass media, organizational etc.) with a variety of messages, in a variety of forms for a variety of reasons (Asemi A, 2005).

Information and Communication Technology (ICT) has been defined in different ways by different commentators. Many of them focus particularly on a 'newer' concept of computer assistance, digital and electronic technologies such as internet (Babbie E, 2020). Others depict it as an 'older' technology such as radio, television. Some even include the whole range of technologies that can be used for communication, including print, theatre, folk media and mass media. Still others said that ICT is a broader concept to enhance communication process and exchange of knowledge (Welder BM, et al. 1996). For this purpose, ICT is defined as tool, which facilitates communication and the processing and transmission of information and the sharing of knowledge, by electronic means. This encompasses the full range of electronic digital and analogy ICTs from radio and television to landline and mobile, fax, computer electronic based media such as digital text and audio video recordings and the internet (Bradford WH, et al. 2005).

Recent developments in the field of information and communication technologies are indeed revolutionary in

nature. By definition, "it is a diverse set of technological tools and resource to create, disseminate, store, bring value addition and manage information". The foundation of the ICT information super highway was laid years ago through the setup of satellite technology for television, radio, cable TV and through computer network, wireless digital telephone system, cellular and mobile radio networks as well as through transmission of data and information to audio visual communication system (Gross JJ, 2008).

In such an environment, people do not pay attention to all communication they receive but selectively attend to, and purposefully seek out information. One of the main challenges in the design of effective health communication is to identify the optional contexts, channels, context and reasons that will motivate people to pay attention to and use health information. In these cases, public education campaigns must be conceptualized and developed by individuals with specific knowledge of the cultural characteristics and language preferences of intended audiences. Direct translation of health information or health promotion materials should be avoided. Credible channels of communication need to be identified for each major group. Television and radio serving specific racial and ethnic populations can be effective means to deliver health messages, if care is taken to account for the language, culture, and socioeconomic situations of intended audiences. Advances in medical and consumer health informatics are changing the delivery of health information and services and are likely to have a growing impact on individual and community health. The convergence of media (computers, telephones, televisions, radio, and video, print and audio) and emergence of the Internet creates an improved networked communication infrastructure. This infrastructure facilitates access to an increasing array of health information and health related support services and extends to reach the health communication efforts effectively. In this respect role of social media serves as an essential medium of communication (Britigan DH, 2009).

Objective of the Study

For individuals, effective health communication can help raise awareness of health risks and solutions, provides the motivation and skills needed to reduce these risks, help them find support from other people in the similar situations, and affect or reinforce attitudes. Compared to traditional mass media, interactive media may have several advantages for health communication efforts; including:

- Improved access to personalized health information.
- Access to health information, support and services on demand.
- Just-in time expert decision support.

- More choices to the health consumer.

Research indicates that even after targeted health communication interventions, low education and low income groups remain less knowledgeable and less likely to change behavior than higher education and income groups, which creates a knowledge gap. With communication technologies, the disparity in access to electronic information resources s commonly referred to as the digital divide. The digital divide becomes more critical as the amount and variety of health resource available over the internet increases and as people need more sophisticated skills to use electronic resources (Brude R, et al. 1993). Even with access to information and services, however disparities may still exist because many people lack health literacy. But, it is true that health communication alone cannot change systematic problems related to health, such a poverty, environmental degradation or lack of access to health care; but comprehensive health communication programs should include a systematic exploration of all the factors that contribute to health and the strategies that could be used to influence those factors. Thus, well-structured health communication activities help individuals better understand their own and communities' need, so they can take appropriate actions to maximize health improvement plans (Harris L, 2008).

Scope of the Study

The present paper is carried out in Kolkata. The clientele of the study includes the library staff in the medical college hospital in Kolkata.

Here we consider the five government aided medical college hospitals in the city (Kolkata). They are:

- Institute of Post Graduate Medical Education (IPGMER,1707) 244, AJC Bose Road, Kolkata–00020.
- Calcutta Medical College Hospital (CMCH, 1835) 88, College Street, Kolkata–700073.
- Nil Ratan Sarkar medical college and hospital (NRS, 1873) 138, AJC Bose road, Kolkata –700014.
- RG Kar medical college and hospitals (1886) 1, Khudiram Bose Sarani, Kolkata –700005.
- Calcutta National Medical College and Hospital (CNMC and H, 1964) 32, Gorachand road, Kolkata–700014.

The information generation study of the library staffs of these five MCH have also been analysed here.

METHODOLOGY

The study is basically an analytical one. For this purpose, survey method was used for primary data collection. A questionnaire was set for the library staffs in these five college libraries. The analytical study was done on the basis of the survey.

LITERARTURE REVIEW

In the changing healthcare scenario, health science librarian can perform more awareness pivotal role.

Smith, Brandenburg, Conte and Song, elaborated the role of health science librarian to meet the diverse needs of the health research. Health science librarians served as a boundary spanning unit within the complex research area. They solved various research queries by providing information services with a collaborative effort.

Fourie and Bakker, in their paper reported that research on cancer library services was limited. They designed a model for a manageable research cycle, which was piloted at Central Cancer Library, Netherlands. Opportunities for improvement of LIS and further research on this field were noted.

Attawood and Wellik recommended the role of library services relating to consumer health. A unique relationship was forged with a patient and health librarian at mayo clinic in Arizona. It also developed a well communication among the patients and the library staff.

Kloppenborg and Lodge described the different types of skills required for the medical librarian in the present society. Library manager should possess their organizational culture along with some internal and external technical skill for unpreceded growth in medical literature.

Wood in his book discussed about the medical librarians in Malaysia. According to him, medical librarians were expert in searching specific medical information. Their emerging roles were limited and training and education to specialize in the field was limited.

Burnham's paper concerned about the role of health literacy to develop and disseminate health information for the appropriate persons. Libraries could work with the organization in their communities to improve the accessibility of health information. This paper outlined the context of health literacy promotion.

Kouame, Harris and Murray in their paper, addressed the issues regarding the provision of consumer health information were often changed. But awareness through public libraries could be helpful for their user.

Sherwill and Wallace in their paper demonstrated that medical librarian proved their value to the provision of quality patient care. At the same time, various research results must be disseminated and the articles must reach to wide number of audience for the betterment of the patients.

Wessel, Wozar and Epstein examined the enhanced access to and awareness of health resources on the part of public libraries in Western Pennsylvania. The study indicated that the academic medical centre libraries could have a positive impact on the communities by providing

health information instruction to the public librarian (Nicholas D, et al. 2004).

Role of Health Librarian/Library Staff in the Five Medical College Hospital

Libraries are the important channels through which health information can be distributed. Now a days huge amount of information is available everywhere, but it is difficult to maintain and manage the appropriate information in the health sector.

In case of health information, one important feature is timeliness *i.e.* health information should reach the user at a fraction of second when it is demanded, which can save a patients' life. In this respect, role of health librarian is very much essential, as they are the intermediary between the health information generator and health information seeker.

In the RG Kar medical college library, the present librarian informed that in many case, just before the surgery starts (in case of breast surgery also) many eminent surgeon consults some reputed health journal and books. Thus, prompt action should be taken by the library staff.

The health information resources are produced in both print and electronic formats and the access is fragmented. These resources are not usually indexed, nor are they regularly updated. So, it is useful for health information resources to create a library network, through which information could be easily distributed. Thus, libraries could serve as a repository for health information and are acceptable vehicle for disseminating information.

In this respect, internet also plays a vital role. Some medical oncology journal appears online. The information technology can improve the storage and retrieval of health information quickly. Thus, health librarian needs to be 'well rounded professional *i.e.* they have the professional skills along with the knowledge of Information Technology (IT) as well as organization of text and numerical data on health science. Librarians are also helping the clinician in searching their databases.

In the five medical college libraries, there is only one medical college where a fulltime librarian exists. In other medical colleges, the retired librarians act as (contractual) librarian, and other library staffs are facing huge workload due to the shortage of manpower. But those libraries are well maintained and well decorated having AC facilities.

Attitude of the Library Staffs towards ICT

In the five medical college libraries, the infrastructure for ICT is totally different. For example, while in NRS and R.G. Kar medical college libraries, computer with Internet connection is available for quite some time, SSKM medical library has just started the facility, whereas in CNMC and CMCH libraries the process of

computerization will be starting shortly. Another noticeable part is that, due to age differences among the library staff members of different medical colleges, they are not equally satisfied with the ICT application. Young library staff members prefer mostly ICT whereas senior library staffs are not habituated with the new technology and new media at all. So they prefer ICT less. Library staff members are aware of the fact that government provides computer facilities with internet. Though most of the libraries still do not have this facility, but they will be enabled very soon. Basically, government hospitals are using computers for administrative purpose. In some case, they are using computers for acquiring and disseminating health information and storing case histories of the patients in database. Library staffs are aware about the fact that basically the medical officers use internet for communication, teleconferencing and exploring for new information regarding diagnosis and treatment. Only librarian at NRS medical college showed some interest in telemedicine.

Internet Facility in the Library

Out of the five medical college libraries, only SSKM, NRS and RG Kar medical college libraries provide internet facility to their users. CMCH and CNMC and H libraries are yet to be computerized and hence health information is not updated regularly.

RESULTS AND DISCUSSION

Use of Internet by Library Staffs

Library staffs are using internet through mobile phone, smart phones, laptop and desktop. The main purpose of using internet is for browsing. Apart from this, they also use internet for email, reading online newspaper, books and journals. Unfortunately, senior library staffs hardly use computer since they are not accustomed to it (Table 1).

Table 1: Purpose of using internet.

Purpose of using internet	SSKM	CMCH	RG Kar	NRS	CNMC and H
Browsing		-			-
Email		-			-
Online newspaper	X	-			-
Social networking	X	-	X	X	-
Tele conference	X	-	X		-
Online results	X	-			-
Online books and journals		-			-

From the Table 1 it can be seen that use of internet is mostly done by the medical colleges which have already finished their computerization of library or on their way of completing it. As expected, CMCH and CNMC and H are far behind in this department. Unfortunately, out of the five medical colleges, only NRS has teleconference facility. After the introduction of ICT, there have been several advantages. ICT has reduced the use of postal mail and also print version of many of the books, which can now be accessed online.

Benefits of ICT at a Glance

There are nine variables taken to measure the benefits of ICT to the library staff members, even though some of them are not using ICT at all. They also rank it according to their use of ICT at their home or at other places (Table 2 and Figure 1).

Table 2: Benefit of ICT.

Benefits of ICT	SSKM	CMCH	RG Kar	NRS	CNMC and H	Score obtained
Enhance the study and research	5	4	5	5	4	23

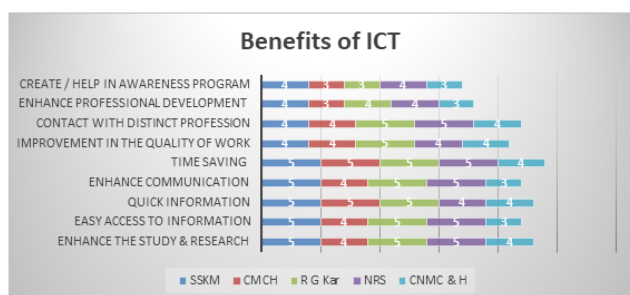|						
Easy access to information	5	4	5	5	3	22
Quick information	5	5	5	4	4	23
Enhance communication	5	4	5	5	3	22
Time saving	5	5	5	5	4	24
Improvement in the quality of work	4	4	5	4	4	21
Contact with distinct profession	4	4	5	5	4	22
Enhance professional development	4	3	4	4	3	18
Create/help in awareness program	4	3	3	4	3	17

Figure 1: Benefits of ICT.

From the survey, it becomes clear that all the library staffs seem to agree that with the advent of ICT, it will be time saving; but they have no clear idea about awareness program and ICT.

CONCLUSION

Information is a vital resource for development of a civilized society. The health information is a fundamental issue for future decision making. But, large numbers of patients often express their view that they do not understand what kind of information actually is needed and from whom. Sometimes they gather health information from various websites, but their authenticity is big a question. So quality and quantity of health information make a person more knowledgeable about the disease and treatment. In this respect, present health education program play a vital role.

The Information, Education and Communication (IEC) campaigns are based on the objectives like perceptions of the community regarding the aspect of the disease and determination of the sources of information. IEC approach can bring expected changes in human behavior. If the respondents find the video and booklet on health information, it will be more helpful to them. Sometimes the patients cannot express their information need precisely and start searching irrelevant information that is not need at that juncture of time even before starting their treatment. In these cases, detailed information booklet on a central websites helps a lot.

In India, this type of patient education center does not exist. However, role of medical librarian to serve the patient community is a big question. Proper IEC set up is needed, so that Information is disseminated in different ways and presented in a systematic and organized manner. With the vast and upcoming new information, the user community will be enriched, but it should be organized in such a manner that, new and updated information must reach to the users. So, the use of new technology and role of librarian are important for deriving the various source of information and delivering the right health information to the right user at the right time.

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