

Role of Health Information Sources in Breast Cancer Awareness

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Abstract: Information is one of the vital resource for the development of a civilized society. It plays significant role in every sphere of human life, may be in education, research and development, business or industry, health sector and Government affairs etc. Information is a fundamental issue for future decision making. In the health sector, role of health information is also crucial as it serves in the decision making process in all aspects. This health information services assist the people to meet their information need relating to healthcare in day - to - day activity. In fact, human existence is characterized by notion of information search. This search of information will lead in achieving a better position in the life. This information need creates a new search term i. e. "Information Sources". The paper proceeds with an understanding of different types of health information sources along with their role in breast cancer awareness. The paper has three major parts; the first part deals with different types of information sources; second part consists of specific health information sources regarding breast cancer. The third part deals with the attitude regarding health information sources among the breast cancer patients, doctors in five Medical College Hospitals in Kolkata.

Keywords: Primary Sources of Information; Secondary Sources of Information; Tertiary Sources of Information; Formal Sources of Information; Informal Sources of Information; Breast Cancer; Health Information Seekers; Health Information Providers.

1. Introduction

The world is in the midst of knowledge revolution. To capture the knowledge base, proper source of information is needed. In order to obtain useful information on any topic, one need to identify what kind of information is required for that purpose and the specific kind of information sources.

Information sources are the sources from where information is derived to meet various needs. Information sources could be observations, human, organizations, documents (both print and non - print), art work, pictures, human sources, speeches etc.

In the print format of information sources, the information is provided through written form. For example – books, periodicals, bibliographies, maps, technical reports etc. On the other hand, non - print format of information sources includes audio visuals, multimedia, microfilm, microfiche, electronic books & electronic journals etc.

According to Dennis Grogan, information sources are categorized into three types -

- 1) Primary Source
- 2) Secondary Source
- 3) Tertiary Source

Another study shows that information sources can be divided into two categories –

- 1) Conventional source of information
- 2) Non - Conventional source of information

Sources of information moves through a dissemination cycle. Initially first - hand experience or findings are documented then presented in various format. So, the first - hand information published as a primary source of information. Once the document is published, then it is indexed in a bibliographic database and repackaged and displayed by others which are known as secondary source of information. Then the document further located and information is disseminated through tertiary source of information.

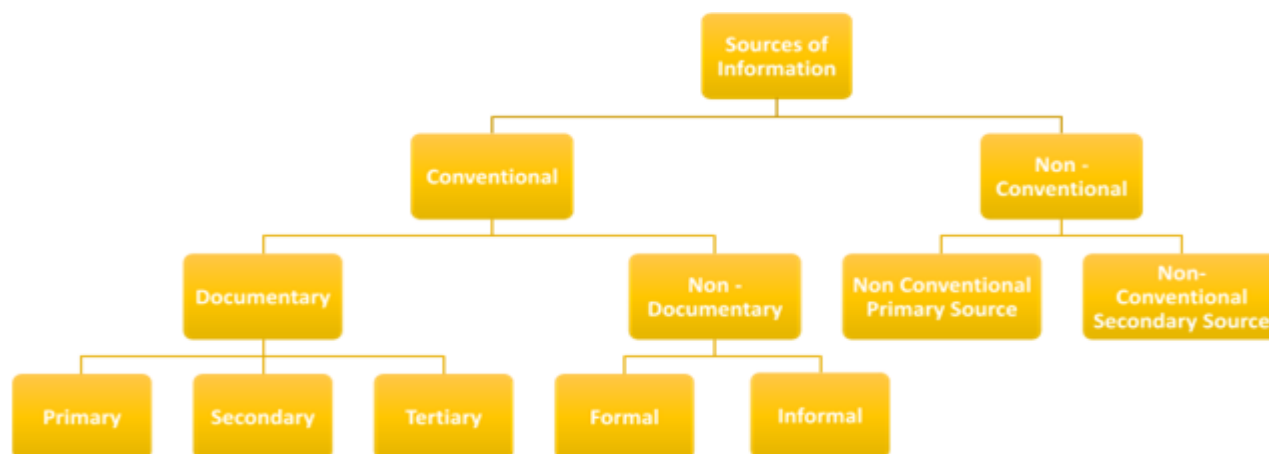


Figure 1: Sources of Information

Figure 1 shows the different kinds of sources of information used in everyday life.

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Information Sources used in the Health Sector

In reality, there are various stake holders in the healthcare system, among them, some are health information provider, some are health information seeker, some may be health information generator and some of them are health information assimilator. According to their nature of work, their preference and sources of health information also differs.

The patient and their family members want health information to gain better understanding of a medical condition. So, they prefer human information sources for their ready reference.

On the other hand, health professionals (doctors, nurses, technicians) prefer health information for the support services, thus they prefer institutional information sources along with research article, journals, reports etc.

The researchers use health information for improving their further research and they prefer primary source of information for their purpose.

So, it can be easily said that there are various sources of health information and due to variation in the health information need; the preference level for the sources of health information also changes.

The sources of information divided into eight segments in the health system. They are mainly -

- 1) **Human Information Sources:** Human information sources in the health system basically include the health professionals (Doctor, nurse, technicians, pharmacist etc.); social workers (NGO); scientist and breast cancer research worker; old cancer patients; health librarians & information scientists.
- 2) **Institutional Information Sources/ Organization & Scientific Resources:** It includes Healthcare Organizations, Professional or Charitable Organizations, Government health departments, Cancer Research Centre, Hospitals, Nursing Homes, Non - Government Organizations and various Medical Libraries.
- 3) **Mass Media:** The media such as Television, Radio, Mobile Phone, are major source of information.
- 4) **Print Media:** Print Media includes books, brochures, magazines, newspaper, prescription or any other written materials from the physician, libraries, hospital authority etc. Newspaper is one of the important sources of information for all the information seekers in this field.
- 5) **Outdoor Publicity:** Another important source of health information is outdoor publicity. For Example - Banner, Hoarding on breast cancer awareness, Poster, Rally, Procession, Advertisement, Pamphlets, Leaflets, Handbills etc.
- 6) **Training, Seminar, Workshop on Breast Cancer:** In various medical college hospitals and research institute organize seminars, workshops on breast cancer awareness.
- 7) **New Technology Oriented Information Services:** After the introduction internet & e - resources, health professionals prefer this source of information mostly.

There are various source of information relating to this new technology. Those are websites, e - books, e - mails, social networking through Face book, Twitter, WhatsApp, blog and evidence based medicine databases for clinical queries, clinical evidences in breast cancer related search.

- 8) **Interpersonal Relation:** In spite of the Human Information Sources, there are some another important sources of information among the patients. These are mainly friends, family and relatives, support groups, counseling (palliative care) units, old cancer patients' opinion etc.

According to a national survey on "Weekly use of information sources in health" showed that the various sources of information. Among them, four sources of health information are used regularly -

- 1) **Media Sources:** i. e. T. V, Radio broadcasting, Newspaper, Magazine etc.
- 2) **Personal Sources:** Medical professionals, friends & family relatives, support groups, follow - old cancer patients' opinion.
- 3) **Institutional Sources:** Government Official Reports, Cancer Research Institutes
- 4) **New Technology Related Source:** Internet and e - Resources (e - Books, e - Journals), SMS & Mobile Technology (downloading various Apps)

Preferred Source of Information by the Health Information Seekers (Patients, Family members)

Depending on the information need of the cancer patients & their family members, information seeking behaviour also varies accordingly. During the illness, patients & family members mainly rely on human information source. These include health professionals (i. e. doctors, nurses, chemotherapy & radiotherapy staff, pharmacist/medicine seller); but it also incorporates older patients, fellow cancer patients, NGO & other support groups. But they basically depend on the information suggested by the health professional staff.

In this study, breast cancer patients in Five Medical College Hospital were surveyed in 2015. Total number of respondents are 10 in each medical college. As there are five medical colleges, so total number of cancer patients surveyed was $10 \times 5 = 50$.

According to the respondent's choice, they want information on the symptom of the disease and screening test on it. Almost all the respondents, who got at least basic education in a school, have agreed that there should be certain information in the text books (may be in the class VII syllabus) on the symptom; screening procedure of the disease; so that rate of breast cancer to some extent declined or diagnosed at the stage I.

Respondents inform about the nature of the disease from various sources; which is depicted below.

The sources of information consist 07 statements. The respondents were asked to express their views on a five point Likert Scale

Non – Informative	Less Informative	Informative	Moderately informative	Highly Informative
1	2	3	4	5

Likert Scale

The total score obtained for each cases are calculated and presented in the table.

Table 1: Preferred Source of Information by the Health Information Seekers

SI No.	Sources	SSKM (50)	CMCH (50)	R G Kar (50)	NRS (50)	CNMC & H (50)	Score obtained	Total score
1	Human Information Sources	45 [90%]	46 [92%]	41 [82%]	43 [86%]	44 [88%]	219 [87.6%]	250
2	Institutional Information Sources	09 [18%]	16 [32%]	15 [30%]	13 [26%]	17 [34%]	70 [28%]	250
3	Mass Media	38 [76%]	35 [70%]	32 [64%]	34 [68%]	31 [62%]	170 [68%]	250
4	Print Media	34 [68%]	36 [72%]	31 [62%]	28 [56%]	30 [60%]	159 [63.6%]	250
5	Outdoor Publicity	37 [74%]	28 [56%]	29 [58%]	32 [64%]	31 [62%]	157 [62.8%]	250
6	Internet & e - Resources	12 [24%]	26 [52%]	18 [36%]	22 [44%]	14 [28%]	92 [36.8%]	250
7	Training, Seminars, Workshop	11 [22%]	18 [36%]	14 [28%]	12 [24%]	15 [30%]	70 [28%]	250

It is clear from the table that, human information sources are the preferred source of information, all the respondents preferred the doctor’s voice, then they rely on mass media (68%) sources; among them television & radio are most popular broadcasting system. Print media (63.6%) is another preferred source of information, but due to illiteracy & less education, to some extent it was not so much popular like mass media.

Irrespective of percentage value, outdoor publicity (Banner, poster, Rally, Procession, Adv.) also get an advantages positions (62.8%). But due to lack of technical support and not familiar to internet and e - resources, emails, e - documents, social networking sites are not so much popular to the rural participants. (36.8%). As the respondents are not

familiar with the workshop, training, seminars and institutional sources of information very much; so they preferred less (28%) in these two category.

According to their suggestion, more and more information on the symptom of breast cancer, treatment option, screening procedure of breast cancer are to circulated through print media, mass media and outdoor publicity.

Preferred Source of Information by the Health Information Providers (Doctors, Nurses)

According to the doctors and other health professional; sources of information is divided into a scientific manner. Information sources are categorized as follows:

Table 2: Documentary Sources of Information on Breast Cancer

Documentary Sources of Information	Primary Source	Periodicals	Newspaper	Medical News Today (Paper clipping from several newspaper)
			Magazine	a) Breast cancer Wellness Magazine b) A women ‘ s Health
				Journals
		Patents	Supreme court reaches compromise on breast cancer gene patent (June 13, 2013)	
		Research Report	Breast cancer Research ‘Publish several article on breast cancer, eg - Breast Cancer Care in India: The Current Scenario and the Challenges for the Future Gaurav Agarwal* and Pooja Ramakant	
		Trade literature	Pharmaceutical manifesting review (1996) England : Argus Business media	
		Dissertation, Thesis	High risk breast cancer: From biology to person aliased Therapeutic strategies (2013), by Tashima Z Paris University of Gothenberg	
		Secondary Source	Text book	a) Your guide to breast cancer – J Lewis b) Breast cancer & molecular medicine - M. Piccart & others
			Reference Book	National Comprehensive Cancer Network (2012). Breast cancer risk reduction. NCCN Clinical Practice Guidelines in Oncology
			Hand Book	Bhattacharjee, S. K. (2014) Handbook of Medical Plants.4th rev ed. Jaipur: Pointer
Chemical Abstract	International Journal of Breast Cancer			
Tertiary Source	Bibliography of Bibliography	Clinical Bibliography by NCBI		
Guide to literature	AMEDEO: The medical literature guide Breast Cancer New 04.07.2016 You may choose a subset of the fo 27.06.2016 subscribe to our free e - mail servic articles 20.06.2016 receive an e - mail with bibliographi 13.06.2016 available abstracts. 06.06.2016			

			30.05.2016 23.05.2016 16.05.2016 09.05.2016
		Directories	Colorado Breast Cancer Resources Directory
		Yearbook	Yearbook of clinical micro biology (2000) boca rata CRG press

From the basis of this division of source of information, doctors mainly prefer primary source of information in most of the cases. Informal source of information and secondary source are also important for meeting their information need.

College Hospital. So, total number of doctors surveyed was 25. They ranked their preference according to 5 - point Likert scale.

There are five full time oncology specialists in each Medical

Now, the preferred source of information regarding breast cancer according to the doctor 'view is discussed:

Table 3: Preferred Source of Information by the Health Professionals

Source	SSKM	CMCH	R G KAR	NRS	CNMC&H	Score Obtained	Total Score
Primary	25	22	24	25	23	119 (95.2%)	125
Secondary	17	20	18	20	15	90 (72%)	125
Tertiary	13	11	15	12	14	65 (52%)	125
Formal	18	17	16	16	17	84 (67.2%)	125
Informal	20	21	19	18	16	94 (75.2%)	125

From the above table (Table3) it is clear that all the doctors in SSKM and NRS Medical College preferred Primary Sources of Information while other Medical Colleges also

preferred Primary Sources of Information along with Secondary Sources of Information in some cases.

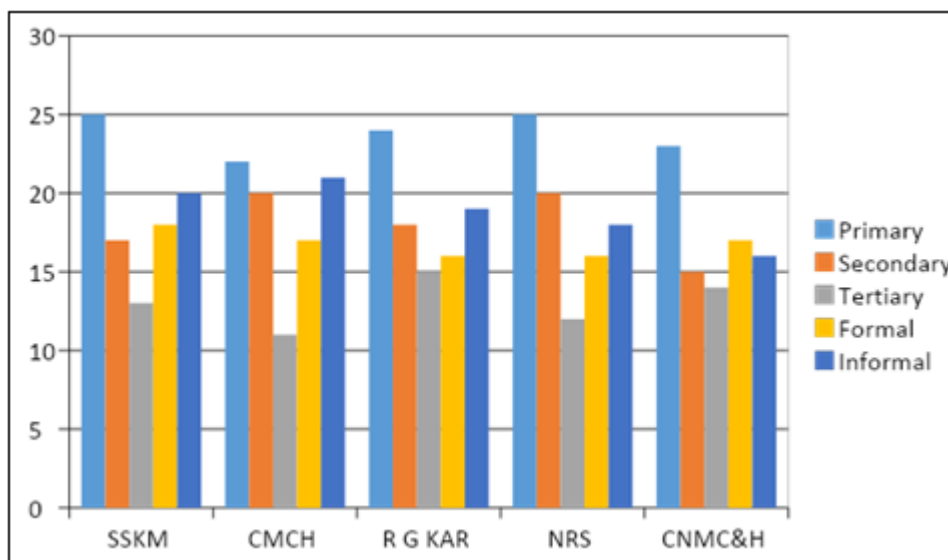


Figure 2: Preferred Sources of Information by the doctors in Five Medical College Hospitals in Kolkata

Figure 2 depicts the preferred sources of information by the doctors in the five medical college hospitals in Kolkata using the bar diagram.

and updated information must have reached to its users. Thus, the use of new technology is important for delivering the right health information to the right user at a right time.

The doctor selected different source of information according to their own choice. Out of 25 doctors (5 medical colleges X5 = 25), 22 doctors prefer primary source of health in as the highly informative source. At the same time, they prefer informal source & secondary source as second best alternatives.

3. Conclusion

The health information is intermittently produced on topics in a variety of print and electronic formats and access is fragmented. This resources are usually not indexed, nor they are regularly updated. So it is useful to create a network, so that information could be easily distributed.

2. Analysis

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 such a manner that new

Health research institutes can provide information quickly with the various information retrieval strategy. Such preparation could help to disseminate information quickly and result it in more efficient use of time. They serve as a depository for health information and are acceptable vehicle

for disseminating information.

In this respect, Internet also plays a vital role. Internet provides access to an enormous number of databases distributed around the world. The health information is also available on Internet. Some medical oncology journal appears only online. The information technology can improve the storage and retrieval of health information quickly to the health professionals, patients and others. The support and co - operation of community and government will provide better understanding and development in the health information services.

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