HEALTH INFORMATION DIVIDE: A STUDY IN JAMMU DIVISION

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The Internet is a primary part of the everyday life of contemporary Indian; they see it as a safe and confidential source of information on health topics. The aim of the paper is to describe the experience of searching health information on the Internet by respondents from Jammu region. The paper focuses on: examining respondent's access to the Internet; factors related to health information seeking on the Internet; and the factors that affect the accessibility of Internet and led to the digital divide in the society of Jammu region. The data analysis indicates that the respondents are more likely depending on the traditional information sources especially the personal contacts as compared to the Internet for their health information needs. They generally access the information regarding the child health, diet, exercises etc. There is a huge divide across the sample and variables e.g. age, areas, qualification, and their state of health among those who are dependent on the Internet. The paper concludes that the Internet to be used in an efficient way for health promotion it is necessary to gather more complete knowledge of the various aspects of information (health) behaviour and identify the characteristics of those who have adopted it to seek information and led to the digital divide in this information world.

Keywords: Internet, Health, Information, Information divide, digital divide etc.

INTRODUCTION

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The Internet is shifting the world to the information world. In this changing world most of us are accessing, utilizing, and receiving the knowledge from this 'giant global library' called 'World-Wide Web' (Gardner and Oswald, 2000). But one and all are not able or willing to access the Internet in developing environment of India and are making a 'digital divide'. The Organization for Economic Co-operation and Development defines the digital divide as the difference between individuals, families, businesses and geographic areas with regard to (a) their opportunities to access ICTs and (b) their use of the Internet for a wide variety of bodily functions. It is the gap between those who have real access to information and communications technology and who are able to use it effectively, and those who don't have such access (bridges.org.).

In this IT era, the internet has become a primary mode of communication/ information transfer in this information world. The internet provides a number of services like email, chatting, file transfer, conferencing, social networking, etc. in 24x 7 hrs. The Internet makes easy attain a broad variety

of information, from anywhere people are logged in, at the times that suit the user (Fox and Rainie, 2000) and the prospect of tailoring the information to individual needs (Saperstein et al., 2007). It provides a platform for health information for its users from their posts. Now days the internet has emerged as the major source for health information in all its formats.

Healthier lifestyles are 'collective patterns of health-related behavior based on selections from the choices available to people according to their life chances'. This symbolizes that people have dissimilar life likelihood. Edejer (2000), state that knowledge has been illustrated as a good that is available to the public, and as something that is not diminished after being employed by an individual, and once provided it has been regarded as difficult to restrict to a single person or a group. Advances in information and communication technologies make the comprehensive knowledge distribution much easier. The technology, specifically the World Wide Web, enables information to be made available to multiple users the instant it is produced. "The digital divide is focused on the actual access to information technology and the global computer network, whereas the information divide here is more a matter of a society's capability of generating their own information that could be harnessed in their economic development. The digital divide as commonly known is then only a part of the wider information divide, and many scholars have agreed that a way to solve the digital divide problem is to increase the flow of information. Nonetheless, there are some serious problems about this, most notably involving certain types of injustice that are involved in the flow of information." (Hongladarom, 2007)

OBJECTIVES OF THE STUDY

In view of all this, the main purpose of this study aims is to study the characteristics which led to the information divide in Jammu region. However following are the specific objectives of the study:

1. To describe the experience of respondents in Jammu region (India), while searching for health information on the Internet.

2. To examine the respondent's access to the Internet

3. To examine the factors related to health information access through the Internet

4. To examine the type of health information accessed and

5. The problems faced while accessing health information through the Internet.

METHOD

The data were collected from the sample consists of 300 randomly selected residents of rural and urban area of Jammu division, aged above twenty; the data were gathered as a field survey to identify their needs and accessibility to the various health information sources. The variables studied while the survey were the socio-demographic information including the gender, age, area, education, and self reported state of health. A list of information sources was presented and respondents were asked to contribute an answer about each source; access to the Internet was examined by asking the questions like, Do you access the Internet? What kind of trouble do you face while accessing health information sources including the internet? Variables related to the conditions governing the access to and use of information and communication technologies (ICT) are Use of the Internet, frequency of usage, the main usage of the Internet, to study the opinion of the Internet as a safe source of health information and the usage of other sources of health information.

The data were collected by using the self-devised 'structured questionnaire'. Prior data collection the instrument was pilot tested on 50 respondents for determining the suitability of the questionnaire. The responses during the pilot study are not included in the data analysis.

RESULTS AND DISCUSSIONS

Table 1. Demographic information (N = 300)

Demographic details	N (%)
Area	
Rural	183(61)
Urban	117(39)
Gender	
Male	125(41.7)
Female	175(58.3)
Age	
20-30	90(30)
30-40	138(46)
40-50	53(17.7)
50-60	13(4.3)
60-70	0 (0)
70-ABOVE	6(2)
Qualification	
Literate but no formal education	16(5.3)
Primary	45(15)
Secondary	33(11)
Higher secondary	61(20.3)
Graduation	74(24.7)
Post graduation	71(23.7)
Self-reported state of health	
Poor	65(21.7)
Fair	93(31)
Good	85(28.3)
v good	57(19)
Internet users	74(24.7)
Health information sources	N (%)*
Print media	
Newspaper	141(47)
Internet	59(19.7)
Hospital literature	37(12.3)
Magazine	21(7)
Library	21(7)
Roadside hoarding	10(3.3)
Non- print media	
TV/radio	96(32)
Advertisement	27(9)
Personal contacts	
Family	209(69.7)
Doctor	135(45)
BabaRam Dev	130(43.3)
Patient	122(40.7)
Pharmacist	57(19)
Religious gurus	27(9)
Medical camps	7(2.3)
* Multiple response	

The respondents belong to all the social-demographic levels. The sample has respondents from the rural (61%) and urban (39%) areas including both male (41.7%) and female (58.3%) with the literacy level from the literates who do not have any formal education (5.3%) to the highest of postgraduate level (23.7%). They belong to the age groups from the twenty years (30%) to the oldest of 70 years (2%). The 28.3% of respondents mentioned their self-reported level of overall health good, 31% described their health as fair, 21.7% respondents reported their health as poor and the least percentage 19% described their health as very serious. As far as the access of health information is concerned the respondents uses the variety of the health information sources. The accessibility is based on their ease of approach the healthiest source, knowledge of the health information sources and need. The respondents get health information from a variety of sources, including, through traditional sources such as newspapers (47%), magazines (7%), libraries (7%), roadside hoarding's (3.3%), brochure/ pamphlets from health department (12.3%), and non-traditional forms like Internet (19.7%); print media and non print media. Respondents get information about health issues from conversations with family, friends, or co-workers through local prescriptions which usually resulted to self treatment or healthcare professionals.

Table 2. Internet as the source of information (N = 74)

Frequency for using internet	
Rarely	24 (32.4)
Daily	23(31.1)
Few times a week	15 (20.2)
Few times a month	12 (16.2)
Place for accessing internet*	
Working place	31 (41.9)
Mobile phone	19 (25.7)
Cybercafé	16(21.6)
Home	8(10.8)
Purpose of using internet*	
Social networking	65(87.8)
Chatting	64(86.4)
Music	59 (79.7)
Health information	59(79.7)
Working/ education purposes	47 (63.5)
Email	42(56.7)
Shopping	21(28.3)
Internet as the source of health information(N=59)	
Frequency for searching health information	
Whenever required	31 (52.5)
Few times a week	6 (10.1)
Daily	8(13.5)
Few times a month	9 (15.2)
Name of the health website known	10(16.9)
Google	
Reasons for using internet for health information*	
Free source of information	43 (72.8)
Huge source of information	25 (42.3)
Attain knowledge about the health condition	21 (35.5)
Quick source of information	17 (28.8)
Problems while searching health information*	
No internet at home	41 (69.4)
Health information is in English	41 (69.4)
No confidence	34 (57.6)
Lack of searching skills	25 (42.3)
Lack of knowledge of websites	17 (28.8)
Evaluating the health website	7(11.8)
Type of information*	
Cure of the disease	44 (74.5)
Health care cost	39 (66.1)
Child health care	34 (57.6)
Exercise	24 (40.6)

Diet	22(37.2)
Causes of the disease	13 (22.03)
Symptoms of the disease	10 (16.9)
Prevention of the disease	4 (6.8)
*Multiple responses	

When the respondents were asked about the role of the Internet, the respondents expressed their distrust and low experience level while utilizing the computers and the Internet. Out of the total 300 respondents surveyed, only a few respondents (24.7%) utilize the Internet as their source of information. The Internet literacy was one of the weakest parts of the overall health information literacy and therefore, ability to use the technology to complete a health information search appear to impede them in any way. Out of total Internet users only 72.9% respondents use this technology for health information searches. The respondents had an access to a huge quantity of written health information on the Internet. The internet is mainly used by the younger age groups. The Internet was primarily used for personal social tasks like social networking activities (87.8%), chatting (86.4%), emailing (56.7%), shopping (28.3%), and music (79.7%).

It was found that the favourite online activity was social networking. Each of the Internet users had spent much time on the social networking sites like Facebook, Twitter, YouTube, etc.

As a respondents state,

"*Social networking makes me connected with my friends without having anybody else know about it*"

Whereas another state that,

"I wish to talk to my friends from anywhere and in an affordable than the phone calls."

Internet users have experience in doing social networking rather than using search engines, hence the use of social networking sites must be encouraged to find health information. Therefore, it is noteworthy that the respondents has had not

experienced using a search engine, a primary search strategy, to find health information.

The survey respondents were asked what they would do if they use Internet skills they had already had. It was quite evident from their responses that they believe that Internet contain a valuable information but they are sometimes uncomfortable while using the online tools such as search engines like Google and social networking site for health information. The maximum number of the respondents had the minimal experience in looking the health information online (Table 3). The fact that they had the minimal experience in engaging the Internet to find health information; it was based on their view of the Internet as a source of more informal and personal information. Thus, they were more unlikely to use online sources for health information, because of their inability to use the technology and their ideas about using the Internet as a health information sources. Throughout the survey it was found that the respondent's uses search engines for searching health information but had a minimal experience while making use of health information.

A respondent while describing his search pattern state,

"I search online health information. Usually I put key words or topic in the search engine to search multiple websites. I checked out the website on the first or the second page shown while search."

Another respondent state,

"I click the links from the search engine page and choose the website by clicking the health sites links."

Thus, the respondents use various methods while searching the health information, either they use the keyword search and click and choose the method. The methods require minimal technical knowledge and they browse haphazardly expecting

the trials and errors to be part of their finding the relevant websites or health information.

The primary reasons reported for using the internet were possessing the huge amount of the health information (42.3%), provides quick linkages to a variety of information (28.8%), can access free from their working places (72.8%). Moreover, health topics most frequently sought by respondents relates their physical condition as they wants to know about the healthy diet (37.2%), exercises (40.6%), the discourse of the various health problems (74.5%), information about the health care cost involving medication and treatment (66.1%), the preventive and precautionary information (6.8%), causes of the diseases (22.03%), symptoms of the diseases (16.9%), the child health (57.6%) information. The respondents don't feel important to know about the health laws, their health records, their health rights and health insurances as well. It was clear from the analysis that the respondents have an urge to know about the various types of the health information but they require certain guidance from where to get the quality of health information (Table 2).

For health information the respondents may have difficulties in interpreting the data and lack knowledge about health services and trust in those who provide it. Table 2 shows all the factors / barriers while gaining access to various information sources including the Internet. The respondents experience the major problem while using the Internet were lack of knowledge of information sources (28.8%) and the language problem (69.4%) as the majority of health information in various information sources is in English which is not the native language.

The internet users of the users are availing the Internet from their work places, home and cybercafé. The data revealed that there is a colossal possibility for using the computers and the internet to make search of health information. It was found that the respondents of the younger age groups have high interest in using internet in comparison to the older groups (Table 3).

A respondent state,

"Internet is absolutely an informal source of health information; its credibility is always questioned by the health professionals. Whenever we talk about the Internet, they totally discard it........................... The health professionals or nobody ever guided us about the most credible sources of health information on the internet. That's why we simply use it for fun, social tasks and professional work only".

Table 3: Demography of internet users for health information (N=59)

Demography	N (%)
Area	
Rural	32 54.2)
Urban	27 (45.8)
Age	
20-30	27 (45.8)
30+-40	21 (35.6)
40+-50	10 (16.9)
50+-60	0
60+-70	0
70-above	1 (1.70)
Qualification	
Literate but no formal education	0
Primary	0
Secondary	0
Higher secondary	1 (1.7)
Graduation	14 (23.7)
Post graduation	44 (74.6)
State of health	
Poor	4 (6.8)
Fair	13 (22)
Good	26 (44.1)
V good	16 (27.1)

The young information seekers are potentially bigger user of Internet for their health information. The real recipients of health information are users from younger age groups. The results indicate that there is a great prospect of using the Internet to build health information available to a wide audience. The access to the Internet is an important aspect of the digital divide and hence the information divide, but the features like the ability to use the Internet effectively to seek information should also be considered as a major divide in the digital world. Several barriers have been found to effect the acquisition of data. The respondents were split in their conviction of whether or not they are considering that they be able to find health information online. This confirms that the respondents had a variance between their views of health as a topic and the Internet as a source. Their belief was that the Internet was an informal resource to attain their health information needs, it makes sense that the respondents would not find health information online, since they were not used to operate the resource for that purpose and they are able to make available them with other apprehensions, such as social networking and chatting, since they were regularly engaging in these activities.

Our results indicate a great divide among the internet users across the age groups and educational levels. The study showed that the users may use the internet at home, workplaces, and mobiles but there are still many other places where people may access the internet e.g. Libraries, CICs etc. These public places may allow the users to access the internet for a limited period, thus it may make them less appealing to access from these terminals.

The divide across the sample

It was found that overall there is a huge divide in the whole sample in concerning the health information access. A small number make a quality use of computers and the internet for its health information. This is because the sample consists of all groups of the society i.e. the age, gender, qualification etc and a very small number of respondents use Internet at home to access such information. Such digital divide in the society had led to ultimate health information access divide.

The divide across age groups

It was found that even though persons above the age of 70 were expected to have a high interest in health information, only about one in six are using the Internet to get it. The IT revolution does not seem to be reaching the older generation and the number of internet health information declines as the age increases. As the older people are the greatest users of health care this technology must be potentially useful for older Indians, but on the contrary they are not able to access health information on the Internet directly.

The divide across the qualifications (literacy level)

There is again a great divide along with the rise in qualification. The data might be simply revealing that those with higher qualifications. One of the best single predictors of internet purpose is having a postgraduate degree. Almost maximum numbers of users are from the highest level of qualifications. At the other extreme, no one with any formal qualifications) use the internet. Literacy is an issue of concern. Literacy includes basic, functional literacy and most importantly (in this concern) the technological literacy. Older respondents, who may be literate, may have an unapproachable experience in using a computer and Internet. In addition to this, there are currently fewer sites for non-English speakers, in particular for Dogri, Urdu and Hindi speakers, thus understanding the complex technical language become knotty for Internet users.

This amplifying digital divide led to a great barrier in health information across the all categories of the internet users. India is the diverse state with all levels of instruction. The material available on the internet may be not be suitable for all educational levels thus there is a need to provide such information which may be more understandable to less qualified information seekers. Being a multi cultural society, the relevant information must be provided. The existence of such digital divide has some inferences for the web based health information. The Internet offers a health promotional opportunity, to propagate and to enable health information to be sought on a range of sources, differently from when the more traditional information sources are utilized.

The Indian Governments should play a vital role in bridging this digital divide by developing such policies which would regulate the creation of a robust national information infrastructure that must include the environment that would keep the prices down. The digital divide can be eradicated by providing the concept of health information in school level. The school children must be educated for searching the reliable information. Moreover the people from all age groups, gender, and area must be educated about the Internet, its usability and the credibility of the sites. They must be provided with reasonable priced Internet connections and computers in their family irrespective of their demography.

CONCLUSION

Dissemination of health data is a critical tool for promoting wellness and enhancing the quality of life. The study sought to investigate how people look for information about health and lifestyle with how often they look for information in relation to their employment, and quotidian life. However, people may have online access from more than one place and, thereby, better opportunities seek information. Having online access is not enough since the digital divide also refer to inequalities in people's abilities to make use of the Internet for gathering health information. Hence, the extent the various demographic groups seek health information, the problems and barriers they experience, and the perceptions they had about their own information skills due to the digital divide, are also the matter of concern, which this study dealt with. The present study is an attempt in that direction. The findings from this and future studies can lead to a better understanding of factors related to online health information seeking and bridging the health information dividing by removing the digital divide.

From the standpoint of public health, these results present an opportunity for health services. Hence, it is necessary to design websites for the needs of people of Jammu, which may provide them with dependable and confidential information platform in their native languages.

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