SHORT ARTICLE

A cross sectional study on internet usage for health information among 18-49 years in urban Chandigarh

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Abstract

Background: Internet use for health information has increased over the years. However, how people use internet for health needs to be explored. **Aims & Objectives**: Our study aim was to determine the proportion of people who use internet for health information in the age group of 18-49 years in urban Chandigarh, to document the type of health information sought from Internet, and its association with socio-demographic variables. **Material & Methods:** Community based cross sectional study was carried out with multistage sampling using simple random and systematic random sampling. Data was collected using pretested semi-structured interview schedule. **Results:** Out of 262, 60.6 % of participants used the internet for health information. Availability of broadband connection at home and gender were significantly associated ($p<0.05$) with use of the internet for health information. **Conclusion:** Internet use for health information could have significant potential, particularly in terms of the general public decision-making and autonomy as has been reflected in the results of the present study. The Internet has become an important tool with the potential to improve information dissemination and health care delivery to consumers.

Keywords

Internet; Health Information; Health Communication; Urban

Introduction

The channels of communication are dynamic and expanding, which significantly influence our decision-making. People have become active consumers of health information and their autonomy has increased in making health-related decisions (1). Internet has become a valuable tool in supporting consumer's health information and health care needs. There is a visible increase in use of Internet to obtain health information, though majority still prefer to use doctors, pharmacists, and nurses as their main sources of information. Since, client in healthcare decision-making is increasing, therefore, it is important to know the use of Internet for health, and, if it is having any influence on health practices of people.

In 2017, 51% of world's population has internet access and by 2021, there will be 635.8 million internet users in India (2). The use of Internet is

noted highest (18.8%) in Chandigarh (3) but how many of these uses it for health still needs to be documented. A good community-based study needs attention of the researchers and present study has been planned to explore the extent of use of Internet for health information and to find out its association with the socio-demographic variables of people living in urban Chandigarh.

Aims & Objectives

1. To find out the proportion of people using Internet for health information.
2. To find out the type of health information sought from Internet.
3. To find out the association between uses of Internet for health information with socio demographic characteristics.

Material & Methods

Study design and study setting:

Present study is cross sectional study, which was conducted in Chandigarh Union Territory. Chandigarh has a total population of 10, 55,000 (Census, 2011) (4). The primary unit of city's design is a sector, which is 800 x 1200 meters in area. Barring 1-6 sectors 7 to 56 sectors are having quadripartite structure with subsectors - A (North), B (East), C (South) and D (West) (5). Each sector and subsector has specific housing viz big, medium and small. Some houses are for low socio- economic group. However, the city was planned to bring equity but is a mirror of inequality. This study confines to the urban community only.

Sample size:

The prevalence of household Internet users has been reported to be 18% (3). Assuming 50% of users use Internet for health information, a sample size of 262 was estimated considering an absolute precision of 5% with 95% confidence and design effect of 2.

Sampling technique:

For the purpose of the study, four sectors were selected randomly in four directions namely, North-West, North- East, South- East and South-West. One subsector was selected from each sector by using simple random sampling. In each subsector, 66 households were selected using systematic random sampling.

To begin, one household was randomly selected using systematic random sampling and sampling interval calculated for the subsequent households. In case there was no eligible individual in the selected household the next household was approached in place of the selected household, consecutive houses were selected until the desired sample size was reached.

If there were more than one eligible individual in a household, one of them was randomly selected using Kish table. In case there was, no eligible individual in the selected household the next household was approached in place of the selected household. If there were more than one eligible individual in a household, one of them was randomly selected using Kish table.

The names of all the eligible members in the household were written in the order of age starting with the oldest. Based on total number of eligible household members and a pre-assigned random number, the household member to be interviewed was identified from the Kish table.

Inclusion and Exclusion criteria:

People had ever used internet for any purpose prior to the survey between the age group of 18- 49 years were included in the study. No exclusion criterion was used for the population.

Study tool and study variables:

A pretested, validated, semi structured interview schedule was used for data collection. Independent variables in the study included were age, sex, place of residence, socio economic status (education, occupation, and income) Internet access at home whereas dependent variables were use of the Internet for health information, reason for using Internet as health information and frequency of use of Internet for health information.

Data Analysis:

The data was analysed using statistical software SPSS- 22 version. Chi- square test has been used for testing significance of association between categorical variables in bivariate analysis.

Ethical consideration:

Following Institutional ethical guidelines, written consent was obtained from the participants after explaining purpose of the study.

Results

Proportions of health information seekers on Internet:

Nearly 60% (159/262) of the participants were using Internet for seeking health information. Out of 159 Internet users for health information, 68% had used the internet at least once in the past two months.

With the help of two experts, multiple responses received on the types of information sought were

divided into major categories are presented as Figure 1.

Among Internet users, 35% were using Internet to search for information on prevention and treatment options of different medical conditions such as Cancer, Arthritis and Urinary tract infections.

One fifth of respondents searched information related to medicines such as analgesics, antibiotics and steroids. People were also inclined to access the internet for mental health issues and HIV/AIDS related information, though, the percentage of people who searched information on such topics was as low as 2%.

More than half (53%) of the users accessed the Internet for the reasons such as easy accessibility, lack of trust in doctors and considered as economical source of information (Fig. 2). One fifth of the respondents used Internet because they wanted to be empowered with knowledge about their health condition before seeing a doctor while 4.3% respondents had chosen internet as it was difficult to get a doctor's appointment.

Socio- demographic profile:

The sociodemographic profile of the internet users has been presented in Table 1. The median age of participants was 25 years (IQR 13). Most (61.5%) of Internet users were in the age group of 18-28 years. More number of women (53%) were using Internet as compared to men.

There was a significant association ($p < 0.05$) between gender and use of Internet for health. The use of Internet for health information among women was more as compared to the men. Availability of broadband was also significantly associated ($p<0.05$) with the use of Internet for health information

Discussion

Number of Internet users has dramatically increased worldwide (6,7). In India, among the list of state level Internet users, Chandigarh has a highest no in India. How many of these are using the Internet for health is less known. To fill this gap in knowledge, 262 internet users were interviewed to find out proportion of people who are using Internet for health information and if there is any association between the socio- demographic variables with the use of internet for health.

The findings from a national online survey in United States revealed that 59% adults have gone online to search for health information in (8). In the same year, an online survey showed that 49% of Indians use internet for accessing health information as compared our study finding which 60.6% is in Chandigarh (9). A cross sectional study in Italy showed proportion (84.7%) of respondents used the Internet to search for medical conditions was quite high as compared to our study, used multistage sampling design (10). This indicates that across the globe different technique of data collection has been used in different sample population.

Among Internet-using adults, the survey depicts that 72% have looked for information about at least one major health topic online and 27% looked online information on control of body weight (8). The prevalence of internet use related to wellness information ranging 40.7% for diet, body weight, or physical activity to 16.5 % for smoking cessation (10). About 63.8% of the participants indicated that they sought the information about nutrition (11). The search for diet and fitness related among people of Chandigarh was as low as 8%. The observation that individuals actively sought such information could be a key in the prevention and management of risk conditions and Internet could provide an efficient channel for primary health promotion and disease prevention activities.

People have different reasons to seek health information on Internet. Consistent with the literature, the Internet was preferred for its convenience; easy access (47.2%) and 11.6% participants preferred online health information because of its ability to preserve the user's anonymity (11). These results also indicate that as the technology is on rise and people want to update their knowledge related to health conditions from an easily available source of information, which may also create inequalities in health information accessibility (12).

Our study confirmed the result of prior research that women are more inclined than men who looked for health-related information on the Internet (8, 10, 13). The gender difference in online health seeking has been attributed to women's curiosity about their own health, as women seem to be more involved in decisions about their health (14). This should also be seen in the context to the report from the Egyptian MCIT, a minority (44.4%) of Egyptian Internet users were females, whereas 56.6% were male (15).

Access to a broadband connection is an important factor underlying health information seeking.

Significant association ($p< 0.05$) between availability of broadband connection at home and use of Internet for health information was traced in Chandigarh. Accessing Internet connection and Internet use, a measure lacking in most past studies could be potentially very important for future studies as high-speed connections proliferate, more Internet users take advantage of the high speed for finding health-related information (8). While the findings of this study may stimulate discussion about use of Internet for health information in urban Chandigarh, there are some limitations.

Conclusion

The present study has reflected the significance potential of Internet use in terms of the general public decision-making and autonomy. Understanding health seeking behaviour in relation to use of Internet is important considering the gender differences, easy availability of online information and the increasing influence on health behaviour and health outcomes.

Recommendation

The quality of online information is an important and questionable aspect and there is an urgent need to evaluate the authenticity of the available information.

Limitation of Study

The study is limited to urban population and results may not generalise to the rural population. Clearly, this must be acknowledged when interpreting the findings.

Authors Contribution

All authors have contributed equally in this study.

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Tables

TABLE 1 ASSOCIATION OF SOCIO DEMOGRAPHIC VARIABLES WITH USE OF INTERNET FOR HEALTH INFORMATION

Variables	Internet users N (%) N= 262	Internet users for health information N (%) N = 159	p- value
Age	(Median Age : 25 years)		
18- 28	161(61.5)	95(59.7)	0.64
29- 39	64(24.4)	42(26.5)	
40- 49	37(14.1)	22(13.8)	
Gender			
Men	123(46.9)	64(40.3)	<0.001***
Women	139(53.1)	95(59.7)	
Marital Status			
Never Married	150(57.2)	90(56.6)	0.45
Married	112(42.8)	69(43.4)	
Caste			
General	232(88.5)	145(91.2)	0.09
Others*	30(11.5)	14(8.8)	
Religion			
Hindu	207(79)	123(77.4)	0.41
Others**	55(21)	36(22.6)	
Educational level			
Matric and below	12(4.6)	6(3.7)	0.13
Secondary	71(27.1)	37(23.3)	
Graduate and above	179(68.3)	116(73.0)	
Employment			
Employed	147(56.1)	93(58.5)	0.33
Unemployed	115(43.9)	66(41.5)	
Income****			
<=15000	25(9.5)	13(21.3)	0.53
15001-30000	30(11.5)	21(34.4)	
30001- 45000	32(12.2)	20(32.8)	
45001-60000	5(1.9)	2(3.3)	
>60001	7(2.7)	5(8.2)	
Migration Status			
Natives	165(63)	101(63.5)	0.52
Migrants	97(37)	58(36.5)	
Broadband Connection			
Yes	139(53.1)	100(62.9)	<0.001***
No	123(46.9)	59(37.1)	

Figures

FIGURE 1 TYPES OF HEALTH INFORMATION SOUGHT ON THE INTERNET

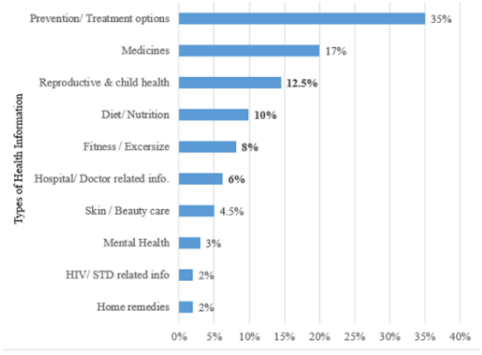

FIGURE 2 REASON FOR USING INTERNET FOR HEALTH