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Original Research Article

Use of internet for health information and health seeking behavior among adults: a cross-sectional study

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ABSTRACT

Background: In recent era web technology has unlock many new opportunities in health care sector. E-Health literacy is "the ability to understand, and appraise health information from electronic sources and apply the knowledge gained to solve a health problem". This study aimed to understand the characteristics and preferences of online health information seekers so that online health information providers can create appropriate health information content which will contribute to health management and promotion.
Methods: A cross-sectional study carried out in the general population who use internet to access health information. A sample of 400 were selected though convenient sampling. Semi-structured, self-administered, pre-tested online questionnaire using Google forms was sent to participants. Data was entered in Microsoft excel for appropriate statistical analysis.
Results: In the present study, 82% (315/400) were using the internet for health information through digital media and 74% believe this could be helpful for raising health awareness. It was observed that among the participants (n=49.5%) looked for the side effects and dosing of common medications followed by disease symptomatology and its diagnosis (n=45%). This study found out that younger age group and literate population were more likely to access health information via internet which was statistically significant.
Conclusions: The current study revealed that younger individuals primarily utilize the internet to explore health information. Nearly half of the participants (49.5%) search for information on medications and their side effects online.

Keywords: E-Health literacy, Internet, Online health information seeking behaviour

INTRODUCTION

The internet is the foremost important tool and the prominent resource that is being used by almost every person across the globe. The internet offers a collection of important services and resources that are essential to daily living. Due to the abundance of devices and ease of access subsequently allow the use of internet to avail heath information.

Internet once primarily used for entertainment, have evolved significantly in recent years, particularly in the field of public health.[1] Online health information (OHI) now encompasses a wide range of services, including virtual doctor consultations, lifestyle management, that enable individuals to monitor their daily activities, exercise, and diet, privacy in searching sensitive health issues.[2]

The term "e-Health" refers to use of web technology in the health sector. E-health literacy is "the ability to seek, find, understand, and appraise health information from electronic sources and apply the knowledge gained to addressing or solving a health problem". The internet

helps individuals seeking knowledge about health conditions and their treatments; therefore, no wonder internet is transforming the health care industry drastically.[3]

The COVID-19 pandemic helped to accelerate the adoption of digital health apps. However, there are ethical and regulatory issues that should be considered.[4] The impact of the online health information (OHI) has its own pros and cons. When a person is flooded with countless health information it becomes hard to distinguish between right and wrong. Due to this, they feel confused and stressed, and for this reason it is important to understand the characteristics and preferences of online health information seekers so that online health information providers can create appropriate health information content which will significantly contribute to health management and promotion.[5] With this background the present study was conducted to assess the use of internet for health information and health seeking behavior among adults.

Aim and objectives

To study the use of internet for health information and health seeking behavior among adults in general population. To study preferences for types of online heath information among different age group of adults. To study the pattern of health seeking behaviour among adults.

METHODS

This cross-sectional study was conducted among adults in general population in western Maharashtra. Adults above 18 years who use internet through any digital media among general population and willing to give the informed consent were included in the study. A semi-structured, pre-tested, online self-administered questionnaire using Google forms was used for data collection. Questionnaire included sections on socio-demographic details, online health information and health seeking behaviour with internet use. The entire time frame for covering the data collection and analysis was October 2023 to January 2024.

In a study conducted by Parija et al, the use of internet once a day for health information was 55%, hence, considering 95% CI and 5% allowable error and awareness of 55%, the sample size was calculated to be 400 using the sample size calculation for population proportion.[6] The Google form was shared through email ids, and different WhatsApp groups and requested to fill forms with informed consent till the desired sample size was achieved.

Institutional ethical committee approval was obtained for the study. All the data was tabulated in Microsoft Excel and results were calculated by using frequency, percentages, and chi square test was applied wherever required.

RESULTS

Total 400 participants were included in the study. There were 53.5% (214) of females and 46.5% (186) male participants in the study. The age wise distribution (age in completed years) is given in the table below (Table 1).

Table 1: Distribution of the study participants according to their age.

Participants' age in years	Male (%)	Female (%)	Total (%)
18-30	66 (35.48)	93 (43.46)	159 (39.75)
30-45	87 (46.77)	83 (38.79)	170 (42.50)
45-60	28 (15.05)	32 (14.95)	60 (15.00)
>60	5 (2.69)	6 (2.80)	11 (2.75)
Total	186 (46.5)	214 (53.50)	400 (100)

Out of 400 study participants, 42% were educated up to higher secondary and 18% were educated up to graduation and above. 82% use internet to obtain health information. Among participants 39.25% (157) were surfing weekly about online health information, 7.5% daily and 24% yearly (Table 2).

Table 2: Distribution of the study participants according to their education.

Participants	Male (%)	Female (%)	Total (%)
Secondary	46 (24.73)	69 (32.24)	115 (28.75)
Higher secondary	48 (25.81)	41 (19.16)	89 (22.25)
Graduates	63 (33.87)	93 (43.46)	156 (39.00)
Post graduates	29 (15.59)	11 (5.14)	40 (10.00)
Total	186 (46.50)	214 (53.50)	400 (100)

Among 400 participants, 78.75% use internet to obtain health information, out of which 41% are suffering from chronic diseases. Online consultation had by 67% of the participants and 84% have trust on the consultant whom they consulted online. More than three-fourth use internet as a second opinion about their health condition. For another three-fourth of the study participants, the health decision is influenced by the internet to take certain medication and 44% get affected by the information available on internet while dealing with the health condition (Table 3).

Table 3: Responses of study participants related to online health information.

Questions asked to study participants related to online health information	Yes (%)	No (%)
Have you ever used internet to obtain health information?	315 (78.75)	85 (21.25)
Do you have any chronic disease?	71 (17.75)	329 (82.25)
Have you ever had an online medical consultation?	150 (37.5)	250 (62.5)
Do you trust the physician whom you consulted online?	163 (40.75)	237 (59.25)
Does the health information you obtained through internet help you get a second opinion about your health condition?	271 (67.75)	129 (32.25)
Does the health information available on internet affect how you deal with your health condition?	338 (84.5)	62 (15.5)
Does internet influence your decision to take certain medications?	310 (77.5)	90 (22.5)

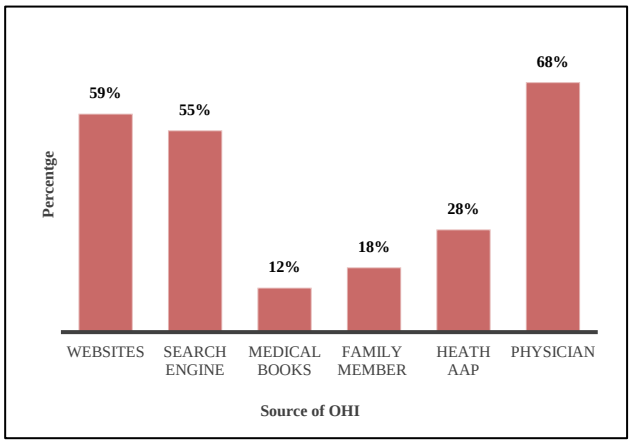

Figure 1: Distribution of study participants for source of health information.

Above graph represents that 68% showed a tendency to trust on the physician for their health-related issues, 55% uses search engine and 59% relies on websites for OHI. A mere 12% of respondents prefer to obtain health-related information from books, indicating a significant shift away from traditional methods and towards more modern and readily accessible technologies (Figure 1).

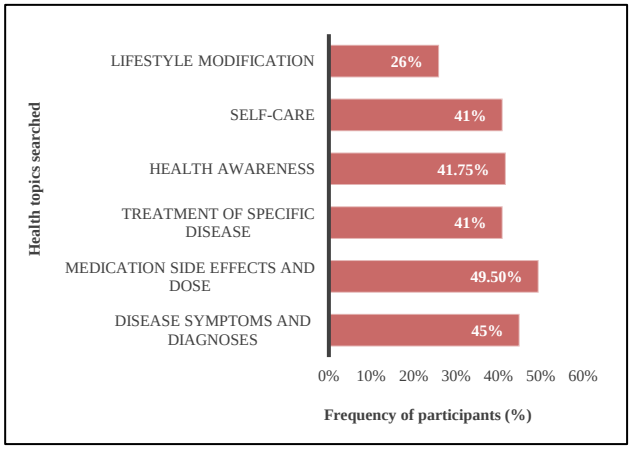

Figure 2: Distribution of health topics that were searched by the participants.

The graph depicts the distribution of health topics that were more commonly searched for by the study participants. It can be observed that among participants (n=49.5%) looked for the side effects and dosing of common medications followed by disease symptomatology and its diagnosis (n=45%) (Figure 2).

In this study, it was observed that, online medical consultation was maximally done by age group 31-45 years i.e. 56%. The use of internet and social media for surfing about health-related information was statistically significant in the age group of 18-45 years (82.29%) and literate population (graduate and post graduates) (40.25%) who were using internet and social media for surfing upon health information ($p<0.05$).

No significant association was found between the trust on physician whom consulted online, influence of heath information found on internet and social media with the health-related decisions with age and education of the participants.

DISCUSSION

In the present study there were a total of 400 study participants. Few key categories that influence online health information seeking behaviors included (1) personal demographic factors, (2) search channels (such as smartphone versus desktop), (3) frequency and duration of internet use, and (4) search appraisals.[7] Online health information seeking behavior (OHISB) has become a widespread global phenomenon with steady increase particularly after covid pandemic. This study revealed that OHISB is around 78.75% which is similar to another study conducted by Parija et al at Delhi in the year 2020, but is less compared to study done in countries like Saudi Arabia (100%) and 92.6% in a Portugal study conducted by Sarah et al and Garcia respectively.[1,6,8]

In the present study it was observed that females (54%) prefer internet as channel for health information as compared to males (46%) this finding is found to be similar with study conducted by Maon in year 2017 in Malaysia and there were 60% female participants.[9]

In this study, it was observed that young individuals, i.e., in the age group 18-45 years (82%) have a higher tendency to engage in online health information seeking behavior (OHISB) as compared to older individuals (18%). This finding consistent with a study done by Xiong et al.[10] This outcome is predictable, as younger generations are more inclined to utilize the internet to meet their needs, whereas older generations are not comfortable with digital technologies.

There were 40% study participants using internet weekly to access health information which was comparable with the study done by Parija et al at Delhi in the year 2020 which was 11.8%, this could be due to increased internet-penetration in India.[6]

Among the study participants, 45% were seeking information related to medication and its side effects and 49.5% were seeking information related to treatment for specific disease which was similar to the study conducted by Sarah et al, which showed 62.3% search for disease medication.[8] While in a study conducted by Gracia, she observed that 77% study participants were interested in disease symptoms.[1] Online Health Information Seeking Behavior was observed 60% for preference to health fitness in study conducted by Parija et al.[6]

In the present study, 67.5% showed a tendency to trust on the physician for physical consultation rather than which is similar to a study done by Thomas et al which was 57 percent.[3]

In the present study, 74% study participants think internet is helpful for spreading health awareness, this finding is similarly seen in a study conducted by Dangui et al in China.[2]

The use of internet and social media for surfing about health-related information was statistically significant ($p<0.05$) in the age group of 18-45 years (82.29%) and population with higher education (40.25%). There was no significant association between seeking of health information through internet and the health-related decisions with respect to age.[3]

This study's findings, although valuable, have limitations. Because of the small sample size results may not be representative for general populations. Since the data was collected from online Google form, it may affect the accuracy of the findings. Highlighting the need for further research in diverse contexts. A more in-depth exploration of online health information-seeking behavior is needed to formulate further policy and content of health information in digital mode.

CONCLUSION

The current study revealed that younger individuals primarily utilize the internet to explore health information, consult with doctors online, and seek a second opinion (59.69%). Furthermore, nearly half of the participants (49.5%) search for information on medications and their side effects online. By providing accurate health information through reliable internet channels, will be effective to promote health awareness among the population, leading to enhanced efficiency and improved medical outcomes.

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