



Prevalence and Attitude towards Health Related Web Searches

AUTHORS

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Abstract:

Introduction:The usage of internet for guidance or health information has been a tool since 1990s.The abundance of medical information on internet makes it convenient for people to conduct their own diagnosis based on their signs and symptoms. People have been searching for professionally undiagnosed conditions increasing their anxiety levels.

Objectives:The aim of this study is to give a review of online health information searching among medical students of Dow University of Health Sciences Pakistan and corporate the user's online health information search behavior factors including frequency of searches, preference of search engine ,number of visits to the doctor, practicing self-treatment and anxiety.

Methodology:This research was a cross sectional study carried out at Dow medical college in the time period of three months from Jan to march 2018.Survey was done on a computed sample size of 335 MBBS students of DMC regarding health related web searches. Results were compiled by self-completed response based questionnaires.

Result:Out of total, one- third perform health related web search mostly and one- half perform sometimes. Of these almost one –half reported increase in anxiety. After online



searching, one-third went for self-medication and two-third has no effect on increase or decrease in no of visits to the doctor.

Conclusion: Internet based Health related web searches have become an epidemic all over the world due to easy access of internet. In our research we presented an in-depth study for the prevalence, nature and need of seeking web bases health care and education.

Keywords:

Attitude, Websearches, Unprofessional diagnosis, Health information, Anxiety.

INTRODUCTION

The usage of internet for guidance or health information has been a tool since 1990s¹. People all over the world now use the internet on a regular basis and much of this activity has been occupied by health related web searches³⁻⁴.

Searching for information can be done purposefully or unintended which includes how information is sought, found, used and also avoided⁵.

A lot of websites are used for health care information like ehealth, medscape, and among them personal health records is one of the emerging health information technologies that deliver important and transformative potential for improving the ways of providing health care¹⁸.



Even though the treatment provides in the hospital has a higher quality of care self-treatment based on internet health related searches has the advantage of low cost and ease of access. Self-treatment commonly includes searching for minor illness and low cost for each episode ¹⁹⁻²⁰.

User can often rely so much on health forums which may stress out things between the patient and health professionals as they are not the only reservoir of health information to them ⁷.

The abundance of medical information on internet makes it convenient for people to conduct their own diagnosis based on their signs and symptoms. In 2009, a study was conducted by White RW and Horvitz E on 515 people and it was found that three quarters of people searched for their professionally undiagnosed conditions. Two in five people stated that online health related searches increase anxiety ¹.

OBJECTIVE OF THE STUDY

There is a developing frame of literary work that is involved with the prevalence and figures of online health information searching.

This study believes to devote to that frame of attainments by giving a review of online health information searching among medical students of Dow University of Health Sciences (DUHS) Pakistan.

SIGNIFICANCE OF STUDY

This study will be helpful for students who wish to conduct further research on health related web searches.

This study will incorporate the user's online health information search behavior factors including frequency of searches, preference of search engine, number of visits to the doctor, practicing self-treatment and anxiety.

METHOD

STUDY DESIGN

This cross-sectional study was done at Dow Medical College, Karachi using non probability convenience sampling. It was carried out in a period of three months i.e. from January to March, 2018.

SAMPLE SIZE

The calculated sample size for the study consisted of 335 medically health adults and it was calculated using "openepi.com" with 95% Confidence Interval. The mean age of the sample was 21 years.

STUDY POPULATION

The questionnaires were equally distributed among all the batches of MBBS at Dow Medical College, Karachi. A total of 400 questionnaires were distributed among students and yielded a response rate of 83.75% (335/400).

The Study performed was a cross-sectional survey of the Medical Students regarding Health-related Web searches.



STUDY TOOL

The data collected was based on a self-completed response based questionnaire. Closed-ended as well as open-ended questions were asked for data collection and consent was taken prior to the questionnaire.

INCLUSION / EXCLUSION CRITERIA

All the MBBS students at Dow Medical College were included in this study. While all non-medical individuals as well as other medical fields such as BDS, Pharm-D, DPT, paramedics, etc. were excluded from the study.

The study was limited by relatively small sample size i.e. 334 adults only. It was also limited to MBBS Students and people with other educational backgrounds were excluded from the study.

Another limitation was that Medical Students of only a single institute were focused in this study. Students from the other Medical Colleges of Karachi were excluded.

DATA COLLECTION PLAN

To reduce acquiescence bias, respondents were given blank-spaces (open-ended) to respond with their own answers wherever necessary.

Questionnaire consisted of both closed-ended, response-based questions and open-ended questions.

To reduce bias in questionnaire, leading questions were strictly avoided. To further reduce bias in questionnaire, general questions were asked before specific.

STATISTICAL ANALYSIS

Data was entered and analyzed using Statistical Package for the Social Sciences (SPSS)

Questions were put up to check the prevalence and demographic distribution of the searches.

RESULTS

(Table 1) Represents demographic information of the respondents and table 2 represents student's response to the survey.

Out of 335 students, 89 students (26.6%) mostly, 168 students (50.1%) sometimes, 66 students (19.7%) rarely and 12 students (3.6%) never performed health related web searches.

Table 1;

	Characteristics	Frequency, n (%)
Gender	Male	132 (39.4)
	Female	203 (60.6)
Age group (in years)	18-22	215 (64.2)
	23-25	120 (35.8)
Year of study	First year	67 (20)
	Second year	67 (20)
	Third year	67 (20)

	Fourth year	67 (20)
	Final year	67 (20)

A large proportion of students, (196, and 58.5%) performed health related web searches for some professionally diagnosed medical condition.

Among these, 51.1% performed 1-5 searches, 20.3% performed more than 5 searches whereas 25.1% rarely performed any search during last six months. 68 (20.3%) students carried out health related web searches for some professionally undiagnosed medical condition.

Of these, 47.2% performed 1-5 searches, 14.6% performed more than 5 searches whereas 34.6% rarely performed any search during last six months.

While typing, majority of students 55.8% went with searches appearing below search bar. 57.0% students checked source validity after they obtained medical information online.

Furthermore, students had consulted the Internet for health information for themselves 63.3% and also for their friends and relatives 33.1%.

Table 2;

Questions	Response	Frequency, n (%)
	Mostly	89 (26.6)
	Sometimes	168(50.1)

How often do you perform health related web searches?	Rarely	66(19.7)
	Never	12(3.6)
What type of health-related web searches do you perform?	For some professionally diagnosed medical conditions	
	For some professionally undiagnosed medical conditions	
	For some new research	
	Others	
Do you go with previous related searches?	Yes	187(55.8)
	No	136(40.6)
Do you check source validity?	Yes	191(57.0)
	No	132(39.4)
Do you always search for yourself or for others?	Yes	212(63.3)
	No	111(33.1)

(Table 3) shows effects of searches on anxiety of students. 152 (45.4%) students reported increase in anxiety.

Referral to serious medical conditions and terminologies was found to be the major factor that increased stress and anxiety among the participants. Majority of the respondents 142 (42.4%) consulted their doctor after searching and it helps them in relieving anxiety.

After online searching, 100 (29.9%) of participants rarely went for self-medication, 92 (27.5%) of students sometimes and 71 (21.2%) never conducted self-treatment.

Table 3

• Questions	Response	Frequency, n (%)
Health related web searches:	Increased anxiety	152(45.4)
	Decreased anxiety	45(13.4)
	No effect	126(37.6)
If increase then, what makes you more anxious:	Mention of serious conditions	124(37.0)
	Mention of serious terminology	23(6.9)
	Others:	5(1.5)
	Appointment with doctor	142(42.4)

What do you do to relieve anxiety?	Disengage from virtual world	88(26.3)
	Searching for credible website	48(14.3)
	Others:	45(13.4)
After searching, how often do you practice self-treatment?	Always	15 (4.5)
	Often	45(13.4)
	Sometimes	92(27.5)
	Rarely	100(29.9)
	Never	71(21.2)

While searching for online health issues 91 (27.2%) of participants faced trouble because of difference of information between two sources. 78(23.3%) reported that searching online is time consuming and 64 (19.1%) believed that available online information is not enough (shown in table 4).

Table 4

Questions	Response	Frequency, n (%)
Do you face any of the problems listed below	Limitation of online information	64(19.1)

when searching for health issues online?	Limitation in your understanding	55(16.4)
	Anxiety	27(8.1)
	Time consumption	78(23.3)
	Conflict between two sources	91(27.2)
	Any other:	8(2.4)

As shown in table 5, 225(67.2%) of respondents stated that the collected online health information had no impact on their number of visits to doctor and 223 (66.6%) believed that this health information was beneficial to them.

124 (37.0%) students on their clinical visits came up with their online collected medical information to their doctor. Of these 107 (31.9%) participants stated that information made them interact better with their doctor.

Majority of participants 104 (31.0%) stated that there was no need to bring collected information up to their doctor.

Out of which 7 (2.1%) revealed that it was a reason of embarrassment for them , 60(17.9%) came up with the point that the doctor might not want to hear about the online collected information and for 26 (7.8%) students there was issue of memory recall, so they always ended up not telling their consultant.

Table 5:

Questions	Response	Frequency, n (%)
	Useful	223(66.6)

Do you find web related-health searches?	Harmful	35(10.4)
	No idea	65(19.4)
How does it affect your number of visits to the doctor?	Increases	48(14.3)
	Decreases	50(14.9)
	No effect	225(67.2)
Do you bring your search information up to your doctor?	Yes	124(37.0)
	No	199(59.4)
If yes; does your collected information make you interact better with your doctor?	Yes	107(31.9)
	No	19(5.7)
If no, why? Kindly specify:	Concern you about embarrassment	7(2.1)
	Concern you that doctor does not want to hear about it	60(17.4)

	You believe that there is no need to bring it up	104(31.0)
	You forget to bring it up	26(7.8)

DISCUSSION:

A Cross Sectional Study in Scotland in 2015 suggested that a total of 68.4 % (379/554) of respondents had previously had used the Internet to acquire health information ⁵⁻⁶.

A total of 43.2 % (201/479) of respondents stated that health information improved their health and 67.1(290/432) provided that using Internet for health information results in learning something new accordingly .

Use of Internet and Email for Health Purpose from National Survey in 2001, suggested that 40% of their respondents with Internet Access reported using Internet to look for advice on Internet about health or health care ²⁻³.

About one-third of respondents came up with decision to visit a doctor being affected by Internet and almost said there is no effect on no of visits to doctor .

Seeking and Sharing Health Information Online: Comparing Search Engines and Social Media, a research has demonstrated that Learning about the treatment and the diagnosis process of a health condition was a common purpose of health searches, gathering knowledge about the impact of health conditions on lifestyle and deriving general understanding of a medical procedure were popular goals behind using Internet and Search Engines for health activities ^{2,3,4,5}.

In Our Study, Most of the respondents (66%) suggested that Use of Internet for health care is Beneficial. Most of them(67.2%) doesn't had effect on no of visits to doctor while some(14.3%) had increased no of visits to doctor



Two third of the respondents said that they hadn't consulted with doctor what they had searched because doctor doesn't want to pay attention towards it while on-third suggested that they had consulted with doctor what they had searched and that made them to interact better with doctor.

Most of respondents said that they check Source validity which could if not checked can lead to a wrong diagnosis. It could be suggested that due to different sources on Internet for same health condition make problem for respondent for their health care diagnosis and causing them to increase in their anxiety.

CONCLUSION:

Internet based Health related web searches have become an epidemic all over the world due to easy access of internet. In our research we presented an in-depth study for the prevalence, nature and need of seeking web bases health care and education.

The goal of study was to investigate the results of such prevalence on anxiety and no. of visits to a doctor. The precision was made by confining it to the MBBS students which concluded that such practice has resulted in the increase of anxiety but haven't affected the no. of visits to a doctor.

Moreover it has become a key of knowledge for the respondent's

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