

A study on use of digital media in health information seeking by university going youth (With special reference to district Lucknow, Uttar Pradesh)

ABSTRACT OF THE THESIS

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ABSTRACT

Introduction

Communicating to improve the health status of general population is the target of any nation state to improve the standards of health for the general public in order to make them mentally, physically and socially healthy to contribute to the growth of the self and the society in which they are living.

Motivating a large number of people simultaneously is a herculean task. That needs to be done at several levels and involve sustained research to improve at communicating about various aspects of health to improve the health outcomes for the public at large. Health education aims to empower individuals, groups, organizations, and communities, by imparting health information and addressing health issues with a view to positively influence their health behaviour. It is important to use mass communication channels and new media platforms to connect to the youth and general public to cater to their health information and health status improvement needs. Mass media impart necessary health information in our daily life in a presentable way to make common people more health literate and empower them to take appropriate decision about their different aspects of their lives especially about health.

Evidences suggest that mass Media play a central role in informing & education people about important events / changes happening around the world. Especially because media connect the audience to the world beyond their immediate reach.

Youth forms a major part of Indian population and it necessitates the study to be conducted to understand how youth is fulfilling their health information needs in the converged mass media environment dominated by the digital media presently.

Health communication has its roots in the communication theories of mass communication. Health communication is defined as the art and technique of informing, influencing, and motivating individual, institutional, and public audiences about important health issues. It has been described further as “a multifaceted and

multidisciplinary approach to reach different audiences and share health - related information with the goal of influencing, engaging and supporting individuals, communities, health professionals, special groups, policy makers and the public to champion, introduce, adopt, or sustain a behaviour, practice or policy that will ultimately improve health outcomes” (Schiavo, 2007). Understanding and using principles of health communication, program staff can craft and deliver health messages in a way that is meaningful and appropriate for the audience the program is trying to reach. All too often, well intended and seemingly clear health communications does not leave unanswered questions that may have unintended negative consequences.

“In ancient India our ancestors have excelled even in the communication skills, is amply evident from the old texts where not only complex philosophical ideas but also the mathematical equations and medical prescriptions were given through enchanting verses. The Sanskrit word ‘Sadharanikaran’ is closer to the concept of communication (J.S. Yadav). “The term ‘Sadharanikaran’ literally means simplification. Conceptually, it means achieving oneness or commonness through sharing and comes close to the Latin word ‘communis’ or its modern English version ‘communication’.

Health Information seeking is an integral part of Health Communication studies as it is essential to understand health information seeking behaviour, so that the agencies dealing with public health and various healthcare organisations dealing with providing healthcare services could deliver the message to the targeted audience of any health message with the optimum utilisation of resources available with them.

Health information seeking behaviour studies focussed on studying various groups of people based on their age, gender, health conditions, financial condition to understand how different group of people avail health related information and how they further use it to cope with some health condition or as a preventive behaviour so that an adverse health event does not happen.

Mass media has a very important role to play in any public messaging aimed for the enhancement of public awareness, collection of views, information and attitudes and bringing about positive change in the targeted audience life. It is the

most powerful tool of communication in the world and available to us in the form of Television, Radio, Books, Magazines, Newspapers etc since long.

With the advent of the internet the media message consumption has seen shifted to computers and Smartphones. Media convergence has emerged as key term to signify the capability of digital platforms to converge all kinds of media messages to be delivered by a single Smartphone.

Presently the digital media is dominating the world in terms of delivery of various kind of messaging with health communication being no exception to this. During the COVID 19 pandemic the social media has emerged as the primary tool of interacting with general public by the authorities.

Highlighting the role of digital media during the pandemic in a research paper published by various scholars (Huanyu Bao et.al.,2020) said “The severe acute respiratory syndrome coronavirus outbreak has had a significant impact on global health, the economy, and society as a whole. Various measures are being taken to respond to the pandemic, with digital media playing a pivotal role, especially in the use of visual data to disseminate information, mobile health to coordinate medical resources, social media to promote public health campaigns, and digital tools to assist population management and disease tracing. However, digital media also faces some challenges like misinformation, lack of guidance, and information leakage. We encourage the increased use of digital media with a focus on improving trust, building social solidarity, reducing chaos, educating the public on prevention measures, and reducing the medical burden in facility-based sites”.

In this context it becomes important to understand how health information seeking is done by the University going youth to understand following three component of coping mechanisms in dealing with adverse health situation. Disease prevention, disease diagnosis, treatment and post treatment protocol are different stages of a disease cycle which needs to be understood to evolve medica facilities for coping with the health information seeking and its effects in influencing each of these stages of patients and healthcare providers.

Objectives of the study

The following are the objectives for this study

1. To study the prevalence of digital media use among the university going youth.
2. Prevalence of digital media in health information seeking.
3. To study the effect of gender, age, educational level and educational stream on the health information seeking behaviour.
4. To identify the motivating factors driving online health information seeking.
5. To identify and list the factors that affect the choice of digital media platform uses for health information seeking.
6. Comparative popularity of different digital media platforms in health information seeking.
7. Students' familiarity and confidence in deciding about best resources suitable for health information seeking.
8. Role of trust factor in deciding about the choice of resource for health information seeking.
9. To study the comfort level of students in searching the digital media for health information seeking.
10. To study the healthcare professional's response to the health information shared by the university going students.

This study becomes important to study as understanding the online health information seeking behaviour is the key in deciding to share the right information with the information seekers to help them in taking some preventive measures and help in early diagnosis of some diseases thus affecting the health outcomes for the patients in a positive way.

Research Questions

Following aspects of health information seeking behaviour this study is going to answer.

1. How prevalent use of digital media is among the university going youth?
2. How prevalent use of digital media for health information seeking is among the university going youth?

3. What is the role of gender, Age, education level, educational stream in health information seeking behaviour?
4. What are the reasons for health information seeking?
5. What factors affect the choice of the digital media used for health information seeking?
6. What type of digital media platforms are most popular in health information seeking?
7. How confident students are in differentiating good quality health resources from the others?
8. How important trust factor is for the student in choosing the digital media use for health information seeking?
9. What is the comfort level of students in using digital media for learning different aspects of self-care and general well-being?
10. How does healthcare professionals' respond to digital media information shared by the patients?

Universe of the study:

All the university going students from Lucknow district form the universe for this study.

Population of the study:

Students of the two universities namely University of Lucknow and Babasaheb Bhimrao Ambedkar University having most diversified set of students form the population subset for the purpose of this study.

Unit of the Study:

A university going student from these two universities is the unit of the study for this research.

A questionnaire survey administered in online and in offline mode among the university going students to collect the data to understand how the youth is adopting digital media for health information seeking.

Independent Variables for the study:

Educational stream, Educational level, Age, Gender are four independent variables for which data is collected by the researcher.

The data is collected on these independent variables as researcher wanted to study how these independent variables affect the various aspects of the health information seeking behaviour among university going youth.

Dependent Variables for the study:

All the aspects of internet usage and health information seeking that we are going to study with respect to independent variables are the dependent variable for the study.

Sampling process followed:

As the universe for this study is university going youth and Lucknow has several universities situated in the city it was a tremendous task to draw sample from all the universities.

In the first-round two Universities having most diversified students pool is selected so that a diversified sample for all the independent variable can be obtained. Keeping the above aim in mind Lucknow University and Babasaheb Bhimrao Ambedkar University was drawn from the list of universities to collect responses.

In the second round Quota sampling was applied to decide on the quota for the independent variables of educational stream and educational level, age and gender so that representative data for these independent variables is gathered from the students of the above two universities by sharing a google form link with a request to forward to all the student contacts studying in the above two universities in their respective educational streams and educational levels.

For the offline data collection printed questionnaire was administered to the students at the gate of the universities and in the library and in target departments to collect responses from the students by following simple random sampling and then the offline data was also processed by using google forms to collect all the data at a single platform for ease of analysis.

Collected sample is then processed on Microsoft excel to make it proportionally representative of all the independent variables for which analysis is to be done.

Sample Size for the study:

Appropriate sample size for the population of this study is calculated by using the following formula proposed by Yamane's.

In Yamane's formula if we take confidence level at 95% and precision level at 5% the sample size for 17500 population is estimated at 391. A sample size of 391 students is suitable for this study.

Findings as per research questions

1. How prevalent use of digital media is among the university going youth?

It is clear from the data analysis that internet use is almost universal in the university going youth.

There is no impact of educational stream, educational status, age, gender etc on the internet use among the university going youth of the Lucknow.

Internet and digital technologies are fast becoming so essential to human beings that it is almost impossible to imagine any student not using in the current level of digital penetration in the country.

This finding is in sync with the general digital technologies and internet penetration status of the country.

Internet uses has gain lot of traction after introduction of 4G technologies and they are poised to grow further after the introduction of latest digital technologies.

Time spend on internet surfing is one important parameter to understand internet browsing habits of the university going students.

As observed from the data 83.8% of the respondents are browsing the internet for more than 2 hours and 13% are browsing the internet for more less than 2 hours but more than 1 hour. This makes it clear that majority of students are spending substantial time on the internet.

Educational stream and internet browsing data crosstabulation reveals that majority of students across all educational stream are also spending more than 2 hours per day on the internet.

Among the arts students 84.2%, among the science students 93.9%, among the commerce students 79% students are spending more than 2 hours on the internet, which is fairly comparable figure.

Educational level and time spend on internet

Data analysis makes it clear that 69.2% doctorate students, 85.4% of the master's students and 84.6% of the bachelor's students are spending more than 2 hours on the internet.

This data makes it clear that students up to the master's level are comparatively more in percentage terms to spend more than 2 hours on internet.

Among the doctoral students the percentage is lower with 69.2%. Doctoral students focussing a bit more on books and periodicals could be the reason for this different percentage figure for the doctoral students.

Age and time spend on the internet

As observed from data analysis, it is clear that in all the age groups more than 75% of the students are spending more than 2 hours on the internet. The lowest percentage is for the age group 30 years and above at 75.1% and highest is for the age group 16-20 age group with 86.5%.

Gender and time spend on the internet

Data analysis makes it clear that 85.5 % of the male respondents and 82.1 % of the female respondents are spending more than 2 hours on the internet per day regularly.

This fact makes it clear that gender has no role to play as far as internet browsing habit of the university going students is concerned.

1. How prevalent use of digital media for health information seeking is among the university going youth?

Data analysis indicates that internet use is popular among the university going students for health information seeking with 97.5% of the students replying in affirmative for using the internet for health information seeking, and only 2.5 % of the students saying no for it.

This figure is overwhelmingly high that shows that traditional model of health information seeking is changing in the converged digital media environment.

2. What is the role of gender, Age, education level, educational stream in health information seeking behaviour?

Educational stream and wearable health monitoring device

Data analysis indicates that only 23.8% of the total respondents are wearing wearable health monitoring devices.

Data analysis makes it clear that this percentage is yes for 21.5%,23.5%,32.7% for the arts, commerce and science streams respectively.

This finding suggest that wearable health monitoring devices have not gain that much popularity among university going students of Lucknow.

Educational level and wearable health monitoring device

Health monitoring devices use percentage among doctoral, masters and bachelor's students are 38.5%,36.6% and 18.8 % respectively, indicating their comparatively less preference. Wearable health monitoring devices more popularity among the masters and doctorate students may be because more economic independence leads to the ability to make a decision of their purchase.

Age and wearable health monitoring device use

Data analysis indicates that health monitoring devices are most popular among the age group of 26-30 years of age with 47.1% and least popular among the 16-20 age group with 14.8%.

This finding indicates that younger students are not opting for it but slightly older student are going for it in more percentage terms.

This could be because of more health consciousness or some other factors contributing to it. Further research is needed to look into the factors influencing this data percentage.

Gender and wearable health monitoring device use

Data analysis indicates that 21.2 % males and 26.1% females are opting for the health monitoring devices. There is not much difference in gender-based figure for health monitoring devices.

Educational stream and frequency of health information seeking

Data analysis indicates that most of the students have picked up the once in a month option of health information seeking as far as frequency of health information seeking is concerned.

Most of the students across the different educational stream have also picked up this option as their first preference with 39.5%,41.8% and 32.7% of arts, commerce and science students opting for once in a month answer form the above four options.

Once a year was second most preferred option for the students with 22.7 % students opting for it. Several times in a week response followed the above response with 19.2% students opting for it closely followed by 17.9% students opting for once in a week option.

Education level and health information seeking frequency

Once a month is the most preferred option among masters and bachelor's students as 37.8% of the master's students have opted for the once in a month option and 41.4 % of the bachelor's students have opted for once in a month option.

Several times in a week is the most preferred option for the doctoral students with 42.3 % of the doctoral students opting for it.

Once in a month option is followed by the several times in a week option for the master's students but it is followed by the once in a year option for the bachelor's students.

These findings indicate that the bachelor student have less frequently searched the internet for health information but master's students have searched more and doctorate students have searched even more frequently the internet for health information.

This could be happening because with growing age illness is more frequent and responsibility towards family also increases leading to increased health information search. Further research is needed to explain factors contributing to this health information seeking trend among the students.

Age and health information search frequency

Data analysis indicates that once a month is the most preferred frequency of the health information search for the age group of 16-20 and 21-25 with 45.2 and 35.6% students opting for it among these age groups.

For 26-30 age group the most preferred options are once a month and several times in a week with 35.3% of the students opting for it.

For the 30 plus age group several times in a week is the most preferred option with 37.5% students opting for it.

This finding is consistent with the earlier finding where doctorate students have opted several times in a week option more in percentage terms.

Factors contributing to this trend needs to be researched further to understand this trend of health information seeking behaviour.

Gender and frequency of health information seeking

Data analysis indicates that male and female both are opting for once in a month option with 39.4% and 39.6 % respectively.

This is followed by once in a year option for the male with 26.9 % opting for it and several times in a week option for the females with 22.7 % of the women opting for it.

This trend of more females opting for several times in a week option for health information seeking can be linked to more health issues among women.

This finding also needs further probing to understand why more females are more frequently searching for health information online as compared to male counterparts.

There are slight variations in the trends of health information seeking with different behaviour observed for the independent variables of educational status, age and gender with respect to frequency of health information seeking.

3. What are the reasons for health information seeking?

Reasons for health information seeking analysis indicates that 64.5% or 258 of the total students opted deciding to change my behaviour/daily routine as their most preferred reason for health information seeking closely followed by the noticing new symptoms or change in my health.

This finding suggest that the students are conscious of the healthy behaviour and they wish to stay healthy by adopting healthy behaviour and following healthy diet and lifestyle to prevent illness.

Reasons for health information seeking and educational stream

Data analysis indicates that 72.3% students from arts have chosen Deciding to change my behaviours/ daily routine (e.g., diet, exercise, quit smoking) option followed by 62.4% students from commerce followed by 44.9% students from science stream have opted for this option.

The second most preferred option of the Noticing new symptoms or change in my health (Am I ill? Is opted by 251 student or 62.7%. So many students opting for it indicates, that the students are using internet to search about any new symptoms that may appear to tackle the anxiety coping mechanism against the onset of some new illness and symptoms.

Data analysis indicates that 61% of arts,66.5% of commerce and 55.1% of science students have opted for this second most preferred option; Noticing new symptoms or change in my health (Am I ill? as their preferred option.

Third most preferred option is the dealing with an ongoing health condition such as diabetes/Blood pressure etc with 81 students or 20.3% students opting for it. This finding supports the health information seeking as an instrument of stress, appraisal and coping mechanism to deal with an ongoing health condition.

Data analysis indicates that 22 % of arts, 21.2% of commerce and 12.2 % of science students have opted for Dealing with an ongoing medical condition (e.g., diabetes, high blood pressure) option.

Finding/selecting a doctor is fourth most preferred option with 64 students or 16 % students opting for it indicates that some students prefer to make well informed decision about choosing the healthcare facility and they use internet for selecting the same.

Data analysis indicates that 11.3% of arts, 15.9% of commerce and 30.6% of the science students have opted for; Finding/ selecting a doctor or healthcare facility and preparing for a doctor consultation/ to discuss it with the doctor option in percentage terms.

Being diagnosed with a new medical condition option is the fifth most popular option with 46 students or 11.5% students opting for it. This option is selected by the least number of students indicates that after confirmation of diagnosis students may be preferring to trust their healthcare provider more rather than going for health information seeking online.

Data analysis indicates that 9.6% of arts, 12.4% of commerce and 16.3% of the science students have opted for; Being diagnosed with a new medical condition and being prescribed with a new medication, test, or treatment by the doctor and having some confusion or doubts about information given by the doctor option across the educational streams.

Educational stream and reasons for health information seeking crosstabulations indicates the trend that the students are following the trend of avoidance/prevention as they have selected healthy lifestyle and vitamins and supplement search as the most preferred option.

Digital health information search is used as the coping mechanism to cope with the stress caused by appearance of new symptoms and to mitigate this stress the students have searched online information.

Second most important reason for search being appearance of new symptoms indicates that the students are using the search as coping mechanism.

There are some differences but not very significant gap as far as educational stream and reasons for health information seeking is concerned.

Educational status and reason for health information seeking

Data analysis indicates that 73.6% bachelor,42.7% masters and 30.8% doctorate students have opted for deciding to change my behaviour/daily routine as the option for the reason of health information seeking online.

Data analysis indicates that 69.2% of bachelors,48.8% of masters and 34.6% of doctorate students have opted for Noticing new symptoms and change in my health as their preferred option.

Data analysis indicates that 20.2% of bachelors,23.2% of masters and 11.5% of the doctorate students have opted for this option of dealing with an ongoing medical condition such as diabetes, high blood pressure as their preferred option.

Data analysis indicates that 12.3% of the bachelors,26.8% of the masters and 23.1% of the doctorate students have opted for this option of Finding/ selecting a doctor or healthcare facility and preparing for a doctor consultation/ to discuss it with the doctor as their preferred choice.

Data analysis indicates that 6.5 % of the bachelors ,18.3 % of masters and 46.2% of the doctorate students have chosen; Being diagnosed with a new medical condition and being prescribed with a new medication, test, or treatment by the doctor and having some confusion or doubts about information given by the doctor as their most preferred option.

There is comparatively significant difference in terms of percentages in preferring various options for bachelor's students as 73.6% is opting for change my behaviour/daily routine as their preferred choice. Doctoral students' reason for searching health information is more evenly spread across various options

with 30.8%, 34.6%,23.1% and 46.2% selecting different options which suggest that they have various reasons to search online health information.

This finding suggest that education level has some role to play in reasons for health information seeking choices.

Age and reason for health information seeking

Data analysis indicates that 82.2 % of the 16-20 age group,41.3% of the 21-25 age group,41.2% of the 26-30 age group and 37.5% of the 30 above age group have opted for deciding to change my behaviour/daily routine as their most preferred option.

Data analysis indicates that 73.9% of the 16-20 age group,51% of the 21-25 age group,50% of the 26-30 age groups and 34.4 % of the 30 above age group have opted for Noticing new symptoms or change in my health (Am I ill? as their most preferred option.

Data analysis indicates that 21.7% of the 16-20 age group,18.8% of the 30 above age group,18.3% of the 21-25 age group and 17.6% of the 26-30 age group have opted for Dealing with an ongoing medical condition (e.g., diabetes, high blood pressure) as their most preferred option.

Data analysis indicates that 35.3% of the 26-30 age group,23.1 % of the 21-25 age group,21.9% of the 30 above age group and 9.1% of the 16-20 age group have opted for Finding/ selecting a doctor or healthcare facility and preparing for a doctor consultation/ to discuss it with the doctor as their most preferred option.

Data analysis indicates that 35.3% of the 26-30 age group,28.1% of the 30 and above age group,13.5% of the 21-25 age group and 4.8% of the 16-20 age group have opted for Being diagnosed with a new medical condition and being prescribed with a new medication, test, or treatment by the doctor and having some confusion or doubts about information given by the doctor as their most preferred option.

The above analysis indicates that younger students are more incline towards two options namely deciding to change my behaviour/daily routine and Noticing new symptoms or change in my health (Am I ill? As they have opted for these

two choices with overwhelming percentages. The students of 26-30 and 30 above age group have opted for wide varied of choices as their percentages are widely spread across all the choices given in the question.

We can say that age have some role to play in the reasons for health information seeking as younger students have fewer health concern and with increasing age health concerns may be evolving.

Gender and reason for health information seeking

Data analysis indicates that 63.2% of the males and 65.7% of the females opted Deciding to change my behaviours/ daily routine (e.g., diet, exercise, quit smoking) as their most preferred choice.

Data analysis indicates that 62.2% of the males and 63.3% of the females opted Noticing new symptoms or change in my health (Am I ill? As their most preferred option.

Data analysis indicates that 19.2% of the males and 21.3% of the females opted Dealing with an ongoing medical condition (e.g., diabetes, high blood pressure) as their preferred option.

Data analysis indicates that 15.5% of the males and 16.4% of the females opted for Finding/ selecting a doctor or healthcare facility and preparing for a doctor consultation/ to discuss it with the doctor as their preferred option.

Data analysis indicates that 13% of the males and 10.1% of the females opted for Being diagnosed with a new medical condition and being prescribed with a new medication, test, or treatment by the doctor and having some confusion or doubts about information given by the doctor as their preferred choice.

The above analysis indicates that gender has a very little role to play in the reasons of health information seeking as most of the options are picked in almost equal percentages by students of both the genders.

4. What factors affect the choice of the digital media used for health information seeking?

Data analysis indicates that easy to understand content is the most preferred reason to choose a website for health information seeking as it emerged as a top choice among the students with 227 students or 57.9% students going for it.

Choice of platforms such as you tube for health information seeking could be because of this reason only as many doctors on you tube mostly explain the content in a layman language so that general public can understand it and they could gain more followers.

Top results from the search engines and trustworthiness are the second most important reasons for choosing a website with 206 and 203 students and 52.6% and 51.8% in percentage terms opting for it.

Verified twitter profiles and you tube content made by professional's popularity can be explained by this choice of the respondents.

Recommended by professionals and recommended by friends or family are the fourth and fifth choices respectively. This finding suggest that expert recommendations and word of mouth has some role to play in choice of health information seeking source.

5. What type of digital media platforms are most popular in health information seeking?

Preferred websites of health information seeking analysis indicates that 64.5 % or 258 of the total students opted Video sharing website you tube as their most preferred website for health information seeking closely followed by social media Facebook/twitter/Instagram at 52 % or 208 of the total students opting for it. Social media is followed by Health portal/medical encyclopedia with 36.5% or 146 students opting for it.

Q&A sites Quora/Reddit emerge as fourth most favourite website with 24.3% or 97 students choosing it as preferred choice. It is followed by commercial sites of

drug, formula and personal care with 13% or 52 students opting it as preferred choice for health information seeking.

Educational stream and preferred digital media platforms

Data analysis indicates that 72.3% students from arts have chosen; Video-sharing websites (e.g., YouTube) option followed by 65.9% students from commerce followed by 32.7% students from science stream have opted for this option.

Data analysis indicates that 55.9 % of arts, 57.1 % of commerce and 20.4 % of science students have opted for social media Facebook/twitter/Instagram as their second most preferred option for health information seeking.

Data analysis indicates that 37.9 % of arts, 32.9.2% of commerce and 42.9 % of science students have opted for Health portal/medical encyclopedia option as their preferred option for health information seeking.

Data analysis indicates that 17.5% of arts, 26.5 % of commerce and 38.8% of the science students have opted for Q&A sites Quora/Reddit option in percentage terms as their most preferred website for health information seeking.

Data analysis indicates that 12.4 % of arts, 9.4% of commerce and 26.5% of the science students have opted for commercial sites of drug, formula and personal care option across the different educational streams as their most preferred choice for health information seeking.

This analysis indicates that science students have least preference for you tube and social media for health information seeking an they are more inclined for health portal, Q&A websites for health information seeking. Commercial drug websites are most preferred by science indicates that awareness level and inclination of science students is more towards scientific resources.

Education level and preferred digital media platform for health information seeking

Data analysis indicates that 71.6 % bachelor, 46.3% masters and 42.3 % doctorate students have opted for Video-sharing websites (e.g., YouTube) as their most preferred choice of health information seeking website.

Data analysis indicates that 62.7% of bachelors, 28 % of masters and 7.7 % of doctorate students have opted for Social media (e.g., Facebook, Twitter, Instagram) as their preferred option for health information seeking website.

Data analysis indicates that 36.6% of bachelors, 29.3% of masters and 57.7% of the doctorate students have opted for this option of Health portal/ medical encyclopedia (e.g., MIMS, PubMed, MedlinePlus, WebMD) as their preferred option for health information seeking website.

Data analysis indicates that 18.5 % of the bachelors, 45.1 % of the masters and 23.1 % of the doctorate students have opted for this option of Q&A sites (e.g., Quora, Reddit etc) as their preferred choice for health information seeking website.

Data analysis indicates that 26.9 % of the doctorate, 19.5 % of masters and 9.9% of the bachelor's students have chosen; Commercial site (e.g., drug/ formula milk/ personal care products manufacturer as their most preferred option of health information seeking website.

Education level analysis indicates that bachelor's students preferred easier to understand resources such as you tube and social media whereas masters and doctorate students opted in more percentage for Q& A websites and health portals.

57.7 % of the doctorate students have chosen health portal as a source of their health information seeking resource which is quite remarkable and indicates that with academic progression awareness level and preference for more research-based platforms gain in percentage.

Age and Preferred digital media website

Data analysis indicates that 80.0 % of the 16-20 age group, 40.4 % of the 21-25 age group, 47.1% of the 26-30 age group and 50 % of the 30 above age group have opted for Video-sharing websites (e.g., YouTube) as their most preferred option for online health information seeking.

Data analysis indicates that 73.5% of the 16-20 age group, 24% of the 21-25 age group, 26.5% of the 26-30 age groups and 15.6% of the 30 above age group have opted Social media (e.g., Facebook, Twitter, Instagram) as their most preferred option for online health information seeking.

Data analysis indicates that 37.8% of the 16-20 age group, 46.9% of the 30 above age group, 26.9% of the 21-25 age group and 47.1% of the 26-30 age group have opted for Health portal/ medical encyclopedia (e.g., MIMS, PubMed, MedlinePlus, WebMD) as their most preferred option for online health information seeking.

Data analysis indicates that 47.1% of the 26-30 age group, 43.3% of the 21-25 age group, 25% of the 30 above age group and 12.2% of the 16-20 age group have opted for Q&A sites (e.g., Quora, Reddit etc) as their most preferred option for health information seeking.

Data analysis indicates that 26.5% of the 26-30 age group, 15.6% of the 30 and above age group, 20.2% of the 21-25 age group and 7.4% of the 16-20 age group have opted for Commercial site (e.g., drug/ formula milk/ personal care products manufacturer) as their most preferred option for health information seeking.

Age certainly affects the choice of health information seeking websites as clear from the above analysis.

Younger students among the students have preferred you tube and social media as their most preferred option for health information seeking websites.

Health portals, commercial medical websites and Q&A websites are more preferred by the older students of 26-30 and 30 and above age groups.

Gender and preferred digital media platform

Data analysis indicates that 64.2% of the males and 64.7% of the females have opted for Video-sharing websites (e.g., YouTube) as their most preferred option for online health information seeking.

Data analysis indicates that 50.8 % of the males and 53.1 % of the females have opted Social media (e.g., Facebook, Twitter, Instagram) as their most preferred option for online health information seeking.

Data analysis indicates that 36.3 % of the males and 36.7 % of the females have opted for Health portal/ medical encyclopedia (e.g., MIMS, PubMed, MedlinePlus, WebMD) as their most preferred option for online health information seeking.

Data analysis indicates that 24.9 % of the males and 23.7 % of the females have opted for Q&A sites (e.g., Quora, Reddit etc) as their most preferred option for health information seeking.

Data analysis indicates that 13% of the males and 13 % of the females have opted for Commercial site (e.g., drug/ formula milk/ personal care products manufacturer) as their most preferred option for health information seeking.

The above analysis indicates that gender has a very little role to play in the choice of the website of health information seeking as most of the options are picked in almost equal percentages by students of both the genders.

6. How confident students are in differentiating good quality health resources from the others?

Data indicates that the respondents have ability to distinguish a good quality authentic health resource from a poor-quality health resource as 66.7 % of the respondents have agreed to this statement.

Data indicates that the respondents have a fair degree of confidence in using online health information to make a health-related decision as 66.5 % of the respondents have agreed with the statement.

7. How important trust factor is for the student in choosing the digital media use for health information seeking?

Top results from the search engines and trustworthiness are the second most important reasons for choosing a website with 206 and 203 students and 52.6% and 51.8% in percentage terms opting for it.

Verified twitter profiles and you tube content made by professional's popularity can be explained by this choice of the respondents.

8. What is the comfort level of students in using digital media for learning different aspects of self-care and general well-being?

Data indicates that the awareness of health information available online is high among the respondents as nearly 71.3% of the respondents have agreed with the statement.

Data indicates that awareness about the websites from which useful health information can be find is high as nearly 76% of the respondents have agreed with the statement of their ability to locate useful health information resources on the internet.

Data indicates that 79.8% of the respondents have agreed that they are confident in locating useful health resources on the internet. This figure indicates that digital health information seeking is getting increasingly popular in the young generation.

Data indicates that 79.5% of the respondents have answered the question with affirmative. This indicates that the respondents know to use the right keywords and have ability to plug right question in the internet to answer their health-related queries.

Data indicates that the respondents have the ability to use the online health information to good practical use as 79.9 % students have agreed to this statement.

Data indicates that the respondents have ability to distinguish a good quality authentic health resource from a not so good health resource as 70.9 % of the respondents have agreed to this statement.

9. How does healthcare professionals' respond to digital media information shared by the patients?

Data analysis indicates that almost 50.5% of the respondents have discussed the health information they obtained with the doctor, and 49.5 % of the respondents have not discussed the same with the doctors.

Data analysis indicates that 28.9% of the doctors were not interested in hearing the information shared by the respondents and 34.5 % of the students don't remember the doctor's response. Only 20 percent of doctors, a sum total of quite interested and very interested seem to hear out the respondents. Coining of the pejorative term "Googlopathy" by the medical fraternity for the patient's information sharing can be explained by this finding.

Conclusion

The findings of this study indicates that digital media proliferation have made it almost ubiquitous for the students to browse internet for a significant time on a daily basis.

The internet browsing is popular across all the educational streams and gender with very little difference in percentage terms present as far as educational stream and gender is concerned.

So, internet browsing is almost similarly popular across different educational streams, educational level, gender and age groups as per the findings of this study.

There is some difference in time spend on internet as far as daily duration of internet browsing is concerned as with respect to **educational level and age as with higher educational level and age time spend on internet is slightly reduced for the respondents in percentage terms.**

Digital devices use for health monitoring is also more prevalent with increased age and educational level but less popular among the younger and bachelor students. Educational stream and gender have not much role to play here as well.

Digital health information seeking frequency is also more for doctorate and older students and thus age and educational level has some role to play in this as well.

Educational stream has not much role to play here as well but gender has some role to play as females have more frequently searched for health information online.

In the reasons for health information seeking the bachelor students and younger age group have opted for improving their lifestyle and to identify the illness based on new symptoms onset as most preferred options but higher education level and older students have opted for more varied options in percentage terms this indicates that education level and age have some role to play in the reason for health information seeking as the primary concern for young and bachelor students seems to improve daily lifestyle and identify the possible illness but with increased educational status and age the concern evolve to be more varied in nature.

Gender and educational stream difference has not that profound role as far as reasons for health information seeking is concerned.

Preferred website for health information seeking analysis points out that educational status and age is a factor in deciding choice of website for health information seeking as **doctorate and older students are more inclined towards scientific and research oriented and Q&A websites for their health information search needs but bachelor and younger students opted more in favour of you tube and social media.**

Educational stream has some role here as science students have opted for medical encyclopedia and Q&A websites as their preferred websites for health information seeking.

Gender has again found to not play much role as far as choice of health information seeking website is concerned.

The findings of this study are consistent with the findings of the study conducted (Schäfer M et al.,2021) in Germany on University going student which concluded that student health information seeking takes place primarily online.

The findings of this study also consistent in some broader aspects with (Yilma et al.,2017) study conducted on the students of Malaysian university. Malaysian study has found that a significant proportion of students seeking for health information online. The main source of health information the university students are using is the Internet. Social networking sites such as Facebook and YouTube are found to be useful sites to receive and share health information. The most common health

information type that the university students have sought are fitness, diet, skin health, mental health problems, medication, cancer, and diabetes. Promoting Internet-based health information systems which provide information that is consistent with the health information needs of the university population is important. In this study, health literacy, perceived susceptibility to health problems, and alcohol consumption are also found to be the predictors of health information seeking.

Given the great relevance of social media, video platforms such as YouTube, and search engines as sources of health information for students in general and in an acute pandemic situation, the characteristics and quality of the concrete content presented by these information sources and used by the students must be given greater attention in future research.

Providers of such platforms should be aware that they have a great responsibility. (Roozenbeek.et.al.,2020) Fake news and misinformation must be monitored and rigorously pursued and prevented by content moderation and quality monitoring as observed during COVID-19 pandemic.

This study is also consistent with (Baumann, Czerwinski, & Reifegerste,2017) study as far as role of gender and frequency of health information seeking is concerned. In their study they have found that women are more engaged in searching for health information in general, and from the Internet specifically. Also, as compared with men, women had greater interest in health information, women have showed more active search activities, and used more types of sources to seek health information.

This study has found that university going students have confidence in using digital media for health information seeking and they are confidence in using such derived information for bettering their life and health outcomes.

Response of healthcare providers for the online health information shared is not very encouraging in India as per the finding of this study.

This finding is also somewhat consistent with a study done in U.S.A regarding healthcare providers attitude towards online health information sharing. **The study done by (Brennan & Safran, 2005; Hoch & Ferguson, 2005) concluded that “As a**

result of gaining direct access to medical information, many people started asking their clinicians how to interpret contradictory findings from different studies, how to know what treatment and prevention strategies would work best for them, and how they could learn more about managing their own health conditions. The reaction from the clinical community was decidedly mixed, in spite of the evidence already available from a variety of sources that meaningful patient engagement can lead to better health outcomes (Kaplan, Greenfield, & Ware, 1989; Lorig, 2014)”.

It becomes important in the light of the above findings to find ways and means to deliver authentic and correct information and promoting health literacy for the general population to differentiate good quality health resource from the non-authentic one as the phenomenon of health information seeking is going to be unstoppable going by the current trend.