



Role of social media in health information exchange amongst the female social media users during the pandemic in India

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Abstract

Social media platforms are providing new opportunities for communication between common people and healthcare professionals. Accordingly, social media is facilitating public access to information related to healthcare, networks of peer support, different aspects of health policies, and consulting online with doctors and other health professionals. The potential of social media and related technologies have begun to be addressed by government policies as well as professional organizations too, in the healthcare domain and the responsibility that they carry for the users. In the social networking for the healthcare domain, there are three distinct groups of users. They are doctor to doctor, second is patient to patient, and the last is doctor to patient. The objective of using social media for healthcare purposes differs for each of these three groups. A sample of 200 female social media users was considered for study survey, to know the role of social media in providing health information specially during the pandemic. The study concludes that social media has played a significant role in exchanging health information specially for female users during COVID-19 pandemic period.

Keywords: e-Health, social media, Virtual health communities, social networking

1. Introduction

The usage of electronic systems of communication in support of public health and healthcare purposes has been done for a very long time, even before the arrival of the internet. First applied by the government of the United Kingdom, it was widely used with the help of information and communication technology that enhanced the involvement of the public in healthcare and reduced the costs of public services. Communication based on the internet was targetted to provide solutions related to healthcare that are cost-effective to reach out diversified health support services with a large population access and mainly to those in great need like older people. The study shows that the latest policies related to digital health, work effectively to patients who are self-sufficient and need information and feedback on the services but less than those who need everyday support for some serious health issues and diseases. In adopting social media as a medium to enable the choice for consumers, these policies motivated the marketing of information related to health through a more significant role for commercial organizations and non-profit organizations in the domain of e-Health. The platform of social media, when used judiciously, offers a substantially important support in promoting individual as well as public health, along with the advancement and professional development in the healthcare sector. However, if the platform is used carelessly, it can be dangerous for patients as well as the healthcare system (**Ventola, C.L. (2014)**).

Appearance of COVID-19 pandemic developed a type of public health crisis everywhere when people started facing serious issues and difficulties in bringing their life back to normalcy due to the fear of covid-19. They are trying to manage their stress through social media platforms. It is found through the studies that the women faced several issues due to their health emergency in lockdown situation (**Yoosefi et al., 2020**).

The earlier limited access to technology and communication for the female population specially in countries like India saw a huge change during the pandemic. Their ignorance to the outside world happenings changed into their eagerness to be aware about the pandemic conditions for themselves and for their families. The user-friendly modes of social media helped in this smooth transition. Women started taking more and more interest in knowing about the pandemic, its different aspects, people's opinions, patients' experiences, healthcare providers' information about the possible cures and reliefs. They looked for instant online news sources to get reliable health related information which was found to be useful for their family and friends as well. A majority of the

Female social media user population, who otherwise, did not seem to be keen regarding seeking the health-related information online, started to follow social media platforms much more eagerly and vigorously to deal with this crisis.

The health information seeking behavior of consumers has increased manifold, with the involvement of patients, researchers, doctors, health care providers. Getting involved in the social media online groups, helps consumers with the information related to health, especially social support and empathy. Additionally, the interaction on social media between the patients, doctors, and health professionals helps the consumer identify more personalized assistance that fits the requirement (**Zhao & Zhang, 2017**).

Because of its gender-neutral approach, social media platforms were to be found as an easy access to seek health related information for female social media users more effectively, which helped people analyze and deal with health-related issues globally, where other users are sharing their personal experiences concerning health. At the same time, even the health experts and the governing bodies are managing the adverse consequences of health crisis by adopting the social media tools. Women are using smartphones and social media more in comparison to traditional media for health information. While analyzing the “mental health problems” during pandemic, it is a challenge to highlight the “emotional trauma” and also, decode important social and technical factors which is responsible for this at all levels (**Smailhodzic et. al., 2016**).

Social media has been used as an effective tool to communicate health information to others at the difficult situation of COVID-19 pandemic when the users and the usage of social media is increased to a great extent (**Giustini et al., 2018**). It is also true that the information which is usually generated by the users on social media can be “subjective or inaccurate” and also may include wrong information. This is the reason why it is necessary that correct information needs to be spread in time for the general public. **Tang et al. (2018)** explored a systematic review in their study about key approaches in publishing studies on social media and appearance of infectious diseases. The authors have recognized three key approaches that includes “assessment of the public’s interest in, and responses to, emerging infectious diseases; examination of organizations’ use of social media in communicating emerging infectious diseases; and evaluation of the accuracy of medical information that is related to emerging infectious diseases on social media.” These social networking sites help people in obtaining support from their friends and other contacts as

they are able to interact with an individual with like-minded and face the adverse mental and emotional effect of pandemic (lockdown and quarantine) among people (**Serafini et al., 2020**).

At the time of pandemic, social media had played an important role in reducing psychological stress among people where they share their views, feelings and beneficial health related information with others to deal with the situation. Social media is also used by public officials to circulate any important update and information regarding uncertain situation (pandemic, natural disaster, crime, accident etc.). The literature shows that the people of younger age group got less affected by mental health issues due to the reason they are more involved on social media where they got social support from a wide range of people with similar views and opinion during COVID-19 pandemic (**Qi et al., 2020**). A positive association is explored between “a stronger significant perception of social support and a reduced likelihood of developing psychological distress.” People are getting emotional support through an online support system where people share their experience, information related to concerned doctors, medication and treatment that help and encourage others to deal with the situation (**Lee and You’s, 2020**). It is a great support at emotional level where they feel the sense of community that helps them to reduce their feeling of fear. It is found in the previous studies that social support that largely works as protective factor is not much explored by the researchers.

2. Literature Review

2.1 Uses of social media in healthcare

Bhaskaran, Kumar, & Janodia (2017) stated that with evolving of social media, majority of people have started taking its benefits in every field. Although social media has a lot of benefits, everyone who is involved with it must be careful while sharing any kind of information related to health. Social media is an effective channel for marketing in the healthcare industry these days. At present, in India, there is no legal mechanism overseeing whether the information related to health that is being provided on social media is authentic or not. The respondents who are involved in the study stated that they are using social media for health communication and also are seeking health information from various social networking sites depending upon their needs. According to them,

the most frequently used social media platform is WhatsApp followed by Facebook, YouTube, Twitter, blogs, and LinkedIn.

Khamis & Geng (2021) revealed that social media has become a strong and powerful mode that provides health awareness information for comforting the situation of COVID-19 and it has helped people to understand the local medicines and treatments that have to be done to reduce the infection of COVID-19. Additionally, a high connection was identified between online health information and the health actions of people offline. The usage of social media posed no threats in people's minds during the pandemic period. However, high risks impact those who lack the literacy of social media and the internet. Though there is no threat from social media to literate users, the literacy of social media usage must be provided to all in a sensible way so that they can make the best usage of it.

Gatewood et al. (2020) explained that the interactions between people and the healthcare professionals had been influenced by social media as it has transformed the nature and the speed of the interaction and engagement. Nowadays, it is expected that public health organizations and healthcare professionals interact with the public through social media platforms. However, its effectiveness and how efficient is this strategy is, it still less known. As the demand for instant communication is growing, a solid and effective digital strategy is rooted in best practice. Regularity and the awareness of the target population are essential to maximizing the public's engagement.

2.2 Misuse of social media in healthcare

Sahni & Sharma (2021) explained that there was huge amount of dangerous misinformation in society about the COVID-19, and most of it was generated through social media that was harmful to people. This misinformation and fake news consist of distinct elements of the pandemic and it has the capability of threatening the safety of the public, and aggravates crisis management. Rumors on social media was spreading faster than the virus, and the healthcare professionals were fighting against two types of viruses, one is fake news and the other is COVID-19 virus.

Chukwuyere et. al., (2020) explained about the statements made by the government about the fake news and information spreading through social media have created confusion in the minds of

people regarding the reliability and genuineness of the information and news of COVID-19. Social media platforms like WhatsApp, Instagram, Facebook, LinkedIn, WordPress are effective and popular social media platforms that can be used to spread information and news that are correct and valid to educate people and avoid misconceptions and misinformation.

Alsughayr (2015) found that the unwillingness of healthcare professionals in adoption of social media platforms is due to the risks attached to it that can be harmful for the organization as well as for the public. However, along with some risks, it also has some benefits that can be useful for the health professionals as well as for the public as it has the potential of reaching a huge audience in just few seconds. Thus, spreading news and messages related to health can be done through social media. Social media is helpful in providing information to the public and make them better informed about health and help them participate in the forum and give their suggestions and feedback to other patients.

2.3 Effectiveness of social media

Al-Dmour et. al., (2020) found that the platform of social media can make a positive impact on the awareness related to health issues and behavioral transformation and protecting the public against COVID-19. Social media platform can be utilized by the public health authorities as a useful instrument to increase awareness among public by spreading positive news and messages to the target population. More researches need to be done to identify how much valid is the usage of social media channels and how it can be used to improve the knowledge about a healthy lifestyle. The study also identified lack of researches focusing on the role played by social media campaigns on the awareness about public health and protecting people from the pandemic.

The content related to health information is provided on social media platforms which is helpful for the people who are searching for such information for themselves and their friends as wells. Significant and beneficial health information is offered by social media platforms for the people that are going through health anxieties and medical conditions. The social support refers to the “perception and practicality” of the people that are there in social network and care for others. Social network and sites show how people are involved and take part in social duties by communicating and sharing on these social media sites. Social media network is becoming very popular and supportive in health activities where people motivate and encourage users to be fit,

healthy and active. It is found that in comparison to male, female users are more active on these supportive resources that include “physical and emotional care and nourishment, advice, a sense of belonging (companionship), financial assistance (tangible), and personal advice (intangible).” Where they communicate using these social networking tools as an effective way to spread awareness among people. People found social media an effective way in terms of cost and extent of spread that is used to promote prevention and control of infectious diseases (**AlSurimi et al., 2017**).

Anand, Gupta & Kwatra (2013) examined that the traditional media has efficiency and efficacy in spreading knowledge and awareness among the public related to health, in present times, social media like Facebook and Twitter are used to spread messages about the health. The study has found social media as feasible and easily adopted option by the large number of users, however, it needs proper and adequate maintenance by human resources to avoid its harmful usage. The large-scale usage of technology has made a significant impact on the healthcare system of the economy. The way in which an individual interact with each has been fundamentally changed by the introduction of social media.

In the situation of COVID-19 pandemic, WHO, health care providers and even the governing bodies all over the world are commonly using social networking sites and platforms to deal with critical issues related to public health (**Benetoli et al., 2018**). Social media platforms are been used to spread the health information to general public and related departments on different subjects that include “anti-microbial tolerance issues to subjects such as reporting of adverse reactions.” The “overall size, scope for coverage, and proximity of social networking channels to connect quickly, accurately, as well as reliably constitute the primary goal of these efforts” features of “social media channels and social networking sites” are been used for perception making strategies.

Saxena (2020) stated that in present time, social media is the one and only the fastest medium of communication. Social media platforms connect huge number of audiences together very fast and attract people towards itself. Social media these days is used highly for the healthcare information and sharing awareness, and knowledge about many health-related problems faced by patients. Social media is used to communicate any news and message instantly. However, the information

that is shared on social media related to health might be misleading and incorrect. Thus, it is the responsibility of healthcare professionals to correct it and guide patients with correct information. During COVID-19 pandemic situation, people from all over the world are using different media platforms and networking sites to express and share their views regarding health information. There are different groups, communities, individuals and businesses which is formed to use these different social media platforms and sites to spread information and awareness of the disease. People are following these sites to gather information for themselves and for others as well regarding treatment, precaution, availability of resources to overcome and deal with COVID-19. After the outbreak of different levels of pandemic, people all over the world were highly affected with several forms of social media platforms. People are quarantined at their home and it is tough to follow the personal distance pattern, no matter they are from which state, profession and family, all are asked to follow social distancing (**Misra et al., 2015**). Everyone is trying to engage themselves on social media platforms for health information, commiseration, mental and emotional support in pandemic. There are so many behaviors gets included in life on daily basis that includes “washing the hand, masking, community separation, evading group events, grooming, and loneliness.” Social media is helping its users to improve their health at physical, mental and emotional level by providing health information and online services in the battle against COVID-19 pandemic.

Pizzutiet al. (2020) revealed that majority of the healthcare professionals feel that social media is an effective tool for educating people about health. However, understanding about how to make the best usage of social media might be different for other professions as healthcare professionals are using social media in different ways these days. More researches must be carried out to examine the usage of social media platforms in an effective and efficient manner in the healthcare sector. Studies must be done to understand how social media can be used as a platform of education for medical practitioners, administration, and physicians as well.

Halevi, Liu, & Yoon (2018) stated that as a source of communication and source of information, age, geographical, and professional barriers have been crossed by social media. Social media channels are working effectively by doctors and other healthcare professionals to reach out to their patients and the public in large numbers. Health professionals of young generation who are already using social media from long time are making best use of it by spreading news and messages

related to health and educating people about it. The usage and awareness of social media by healthcare system is essential factor in deploying it successfully.

Gupta, Tyagi & Sharma (2013) explained that technology is here to stay forever and the channels of social media has developed as a game-changer. The digitalization of human interaction with each other has brought them closer in just a click of a button. Social media has occurred as a social boon for the community of public health, and it has the potential if promoting the health-related attitude and problems of patients in the time of crisis. Unlike other media campaigns, social media has provided novel opportunities to mingle messages related to public health in the most convenient way.

Longest and Kang (2022) examined the impact of pandemic and lockdown situation on mental health among young adults. They had focused on their pattern of using social media and its support at social level through online mode in digital environment. The investigators also analyzed the mental health of this section of people on being completely at home for longer period of time. The study considered the respondents belongs to age group 18 to 25 years and found that women particularly those who unfortunately lost their job due to pandemic have gone under elevated depression and shown its symptoms. They use social media to overcome their depression and also, for online informational support.

Guo et al. (2020) found in their study that social media platforms and network had successfully provided different kinds of dental health related information to its users. People have got a positive experience of “remote healthcare services” in the situation of corona virus crisis where they are in need of less traffic and get the services at the comfort of their home to prevent the outbreak of the disease. There are studies which explores some particular sites and pages on social media related to disease and health care information which are found more active in the pandemic time and the users actively participate in responding to queries. Social media helps the people to conduct virtual sessions (question and answer) on any particular topic in a very required and effective manner. Where people are made aware of the current situation and procedure to be followed by providing them secured health information and services. The social media platform is considered as a tool or platform where groups of healthcare providers share medical resources that helps to reduce the “sense of uncertainty, ensure the quality of healthcare, and reduce the workload” (**Nahandi et al., 2020**). The public health measures cannot be replaced by social networks but it can be definitely used to increase people’s attention towards COVID-19 through relevant information and correct

news. It also helps health professionals and care providers to deal with complex and overburden situation and simplify the process of decision making (**Park, Park & Chong, 2020**).

It is found that when the world is going through the situation of isolation and quarantine, social media is used by its users as tool which is “informative and recreational” both to provide covid-free content. The content includes incorporation of information and updates with entertainment. The essential precautionary measures are promoted with the help of messages and info-graphics which is good for psychological well-being of an individual. These strategies are already been used for community campaigns at the time of “SARS and Zika outbreak” and helped to increase the satisfaction level of using social media platforms in improving the quality of the life of the people (**Whitworth, 2020**).

A new dimension has brought up by social media in the healthcare sector which provides a common platform for the “healthcare professionals, patients and the public” to interact regarding their health issues. It has the potential to improve the health results and the lifestyle among people that use this powerful tool for “social interaction and ongoing education, and facilitates collaboration between users.” Social media has shown definite benefits in terms of health communication during pandemic in which “time urgency, physical distancing and the need to widely distribute information” has forced everyone to search a way that can help us to work and learn in this situation. But at the same time, it is very important for the users and creators of the social media platforms to have a good check and monitor the content which is shared and the information which is exchanged on these platforms. The quality and reliability are the most important aspect for the users while participating in social media activities. It is also important for service providers to respect the confidentiality of their clients while they are taking part in their services whether they are clinicians and their patients or any other service providers (**Wong et al., 2021**).

3. Study’s Objectives

1. To identify and analyse the role played by social media access and usage related to health during the pandemic.
2. To know the effect of social media in exchanging health information to female social media users.

4. Methodology

A sample of 200 female social media users were considered to know the role of social media in health information exchange during the pandemic. A Structured questionnaire was used to collect the data through convenience sampling method for this empirical study. The end results were reached using statistical tools like mean and t-test.

5. Findings

Table below is showing basic details of the respondents in which 18 to 25 years are 26.5%, those between 25 to 35 years are 35.5%, and those who are above 35 years are 37.82%. With reference to the types of users, salaried are 27.0%, students are 24.5%, self-employed are 28.5%, and housewife are 20.0%.

Table 1 Basic Details

Variable	Respondent	Percentage %
Age		
18 to 25 years	53	26.5
25 to 35 years	71	35.5
Above 35 years	76	38.0
Total	119	100%
Types of Users		
Salaried	54	27.0
Student	49	24.5
Self employed	57	28.5
Housewife	40	20.0
Total	200	100%

Table2 Usage of social media in providing Health Information

Serial No.	Statements	Mean Value	t-Value	Sig.
1.	Knowledge about medicines and diseases is improved through social media	4.23	8.103	0.000
2.	Social media has been a good instrument to get reviews about online healthcare services during COVID 19 pandemic	4.32	9.160	0.000
3.	Social media has been a tool to create awareness related to health which was helpful during pandemic period	4.29	8.965	0.000
4.	Social media helps in increasing health knowledge about health and prevention from COVID	4.12	6.894	0.000
5.	It helps in communicating with other patients with similar health problems	4.27	8.703	0.000
6.	Social media helps in sharing new researches and discoveries related to medicines and vaccines related to COVID	4.05	6.112	0.000
7.	Social media is proved highly useful during the COVID-19 period	3.89	4.375	0.000
8.	Social media was used as an effective platform to spread news and messages related to health care during COVID-19	4.16	7.436	0.000
9.	Social media users share their knowledge related to specific disease and precaution that needs to be taken	4.03	5.899	0.000
10.	Users share reviews for particular doctor, and its process of medication	4.10	6.796	0.000

Table 2 displays the “Usage of social media in providing health information” the first statement is “Knowledge about medicines and diseases is improved through social media” 4.23, “Social media is a good instrument to get reviews about online healthcare services during COVID 19 pandemic” it has scored the mean score of 4.32. With reference to public health awareness, third statement “Social media is a tool to create awareness related to health which is helpful during pandemic period”4.29, “Social media helps in increasing health knowledge about health and its prevention

from COVID” 4.12. The fifth statement is about the communication “It helps in communicating with other patients with similar health problems” 4.27, next is about the discoveries, “Social media helps in sharing new researches and discoveries related to medicines and vaccines related to COVID” 4.05, the usage of social media during pandemic is shown in statement “Social media is proved highly useful during the COVID-19 period”^{3.89}. “Social media was used as an effective platform to spread news and messages related to health care during COVID-19” 4.16. “Users share reviews for particular doctor, and its process of medication” and “Social media users share their knowledge related to specific disease and precaution that needs to be taken” having the mean score of 4.03 and 4.10 respectively. All the statements are found significant after applying t-test.

6. CONCLUSION, RESULT & DISCUSSION

Social media is the fastest moving platform to share and exchange information, messages, and news. Social media is used by people especially females to interact and communicate with each other in large numbers, and they can get connected with each other very quickly. Women today try to connect a huge number of groups and communities through social media channels and platform. People during pandemic used social media effectively to share and exchange their experiences, information, and news related to the pandemic and its preventions. It is used as an opportunity to reach out to people and targeted population. It can be used to promote medicines, vaccinations, healthcare related news, and care. It is widely been used by housewife, students, salaried and self-employed women. People use social media to understand about particular medicines, its uses, and side-effects, before taking any kind of medication people check feedback and suggestions of others. All in all, social media has proven its worth during the pandemic in helping the female social media users in several ways, for themselves and the people around in their families and surroundings.

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