

Does Social Media have any Influence during the COVID-19 Pandemic? An Update

Satish Vishwanathaiah¹, Prabhadevi C Maganur², Varsha Manoharan³, Ganesh Jeevanandan⁴, Zaki Hakami⁵, Mohammed A Jafer⁶, Sanjeev Khanagar⁷, Shankargouda Patil⁸

ABSTRACT

Aim: The study aimed to explore the role, impact, and influence of social media on the population during the coronavirus disease-2019 (COVID-19) pandemic.

Background: During pandemics, communication is an important factor to disseminate the information, create awareness and provide timely updates from authorized personnel to the masses. Social media progressed to function as a mediator of transmission of information between the government and authorities and the public during the COVID-19.

Review results: Though several strengths were observed yet liabilities did not go unnoticed regarding the role essayed by social media during this pandemic period. When used responsibly, these technologies can aid in the rapid dissemination of crucial facts, important scientific discoveries, and information regarding diagnosis, treatment, and follow-up as well as comparing different strategies across the world. It is recommended to follow certain fundamental standards while exchanging information on social media networks during the COVID-19 era in order to utilize these technologies responsibly and effectively.

Conclusion: In this research, we have made an attempt to synthesize the vital facts regarding the impact, benefits, and drawbacks of using social media during COVID-19. Eventually, the decision of evaluation, acceptance, and denial of the information received rests with the individual.

Clinical significance: Social media use has become intangible with health care. Instead of venturing out the negative effects, we need to focus on utilizing social media for the betterment of the public and to the advantage of the public to increase awareness levels, spread knowledge, and cooperate to tap the benefits to the maximum extent possible to prevent the disease spread.

Keywords: COVID-19, Impact, Pandemic, Social media.

The Journal of Contemporary Dental Practice (2022): 10.5005/jp-journals-10024-3251

INTRODUCTION

Coronavirus disease-2019 (COVID-19), the distressing and ongoing pandemic has brought the world to a standstill from its emergence in early 2020 with rampant spread leading it to be declared a Public Health Emergency of International Concerns (PHEIC) by WHO. Though 2 years have elapsed from its onset yet the world is cramped and crippled under its influence. The strict to-be-adhered protective guidelines and the vaccination programs provided some defense; however, new mutations are escalating the existent hurdles.^{1,2} It has led to several lockdowns across the geographies at various time periods with an intense impact on our existence. Strict lockdown periods ensured restricted movement barring the health care workers, essential commodities force and allowed a limited workforce at government offices and banks to allow the basic functions yet contain the spread of infection. Loss of life and job, plummeted economy added to the existing woes disturbing the psychological well-being of an individual. This resulted in the exploration of a different outlook for continuing the educational and obligatory commitments necessary for survival. Online education being imparted from educational institutions and work from home approach instilled by accommodating professions have increased the internet dependency and the prolific use of laptops and smartphones.³ Thus, to address the disturbed psychological well-being, the in attendance social media formed the perfect medium for a person to acquire relevant information of the ongoing pandemic. Therefore, the present review aims at exploring the role, impact, and influence of social media on the population during the COVID-19 pandemic.

^{1,2}Department of Preventive Dental Sciences, Division of Pediatric Dentistry, College of Dentistry, Jazan University, Jazan, Saudi Arabia

³Department of Public Health Dentistry, KVG Dental College and Hospitals, Sullia, Karnataka, India

⁴Department of Pediatric and Preventive Dentistry, Saveetha Dental College, Saveetha Institute of Medical and Technical Science, Chennai, Tamil Nadu, India

⁵Department of Preventive Dental Sciences, Division of Orthodontics, College of Dentistry, Jazan University, Jazan, Saudi Arabia

⁶Department of Preventive Dental Sciences, Division of Preventive Dentistry, College of Dentistry, Jazan University, Jazan, Saudi Arabia

⁷Preventive Dental Science Department, College of Dentistry, King Saud Bin Abdulaziz University for Health Sciences, Riyadh, Kingdom of Saudi Arabia; King Abdullah International Medical Research Center, Riyadh, Kingdom of Saudi Arabia

⁸Department of Maxillofacial Surgery and Diagnostic Sciences, Division of Oral Pathology, College of Dentistry, Jazan University, Jazan, Saudi Arabia

Corresponding Authors: Satish Vishwanathaiah, Department of Preventive Dental Sciences, Division of Pediatric Dentistry, College of Dentistry, Jazan University, Jazan, Saudi Arabia, e-mail: drvsatish77@gmail.com; Prabhadevi C Maganur, Department of Preventive Dental Sciences, Division of Pediatric Dentistry, College of Dentistry, Jazan University, Jazan, Saudi Arabia, e-mail: prabhadevi.maganur@gmail.com

How to cite this article: Vishwanathaiah S, Maganur PC, Manoharan V, et al. Does Social Media have any Influence during the COVID-19 Pandemic? An Update. *J Contemp Dent Pract* 2022;23(3):327-330.

Source of support: Nil

Conflict of interest: None

SURGE IN SOCIAL MEDIA USE DURING COVID-19

With the majority of the population being confined indoors, an escalation of social media use by 87% has been reported.⁴ Various platforms such as Facebook, Twitter, WhatsApp, WeChat, Instagram, YouTube, Snapchat have embarked on the role of primary medium for sharing information on the ongoing pandemic. A similar scenario was presented during the earlier pandemics like SARS, MERS, and H1N1 where media was an important information source. It has now become the cornerstone for the COVID-19 infodemic. Standing true to its meaning, the information shared appears to be unreliable and transmissible at times, thereby prohibiting arriving at an amicable solution. To address the jeopardy of "infodemic," the WHO initiated the Information Network for Epidemics that aims to intercept and curb the spread of false information. However, the accessibility and familiarity make the media a powerful medium that could either benefit or jeopardize the well-being of society based on how it is used.⁵

DOCUMENTATION ON MEDIA SURGE DURING UNPRECEDENTED SITUATION

Early detection and containing the spread of infection are the foremost requirement to control the disease followed by eradication measures. Research has proven that media plays a significant and contributory role in both stages. A study in 2016 by Yan et al.⁶ reported that media has the ability to modify the community knowledge for mitigating emerging infectious diseases. These media reports thereby should focus on how to guide the public behavioral changes, which are essential for constraining the spread of the disease.⁶ Another study conducted by McCauley et al. indicated that media coverage dispensed anxiety as well as awareness on the H1N1 pandemic.⁷ Earlier in 2009, during the H1N1 pandemic, approximately a 5% rise in misinformation and misused terminologies paved way for the instillation of fear in the general public.⁸ There were media impact models designed after the SARS outbreak from 2003 to 2004 but a concrete conclusion on its positive or negative impact was not derived. Likewise, during the MERS epidemic in 2012 and the H7N9 epidemic, media continued to have a stronger influence on society and presently it has reached the threshold wherein analyzing the impact of media on COVID-19 would definitely assist in a better understanding of its outcomes.⁹

ROLE ESSAYED BY MEDIA DURING COVID-19

The social medium comprising the print media: newspaper and magazine and electronic media: WhatsApp and Twitter are powerful sources of communication, which without doubt exists as the pillar of strength to voice the needs of the common man. However, the effective utilization of the medium depends on tilting the fulcrum towards the benefits than its disadvantages. Media fosters the power to inform, create awareness, reach across boundaries about a situation. On the contrary, it is also a platform responsible for panic, havoc, and restlessness among the population. Understanding the beneficial and detrimental aspects of media provokes the following question to be answered: The role essayed by the media during the COVID-19 outbreak. With the potential to control or affect the disease outcome, the different social media platforms have contributed both, being a savior and the disruptor. Among the

different media platforms available, electronic media is profusely used by the public due to its ease of accessibility and instant data transfer across other media platforms. The International Telecommunication Report states that more than 50% of the global population uses the Internet of which almost 71% of them are of between 15 and 24 years.¹⁰ Numerous surveys worldwide suggest the majority of the population uses the Internet for pursuing health-related information through different search engines.¹¹

Television/Radio

Television and radio have been accessible to society way before social media came into existence. Besides entertaining people, this medium is equally responsible for spreading awareness and information. During the COVID-19 pandemic, television has helped to spread general awareness about the disease, uplifted the advantages of wearing masks and maintaining social distancing, and has popularized the measures and guidelines necessary during the situation. Frankly, the medium works as the perfect stop-gap arrangement between the public and the government, playing its supportive role of educating, informing, and entertaining the public during the testing period. Radio has played its part well during the pandemic, helping society understand the need for preventive measures, has constantly advertised the benefits of staying indoors, and has been a trustworthy source of entertainment during this period.

Social Media

Social media has changed the perspective of communication. It can be either a boon or a bane for the given situation. It is a smart way for easy exchange of information. During this COVID-19 pandemic, this platform has helped maintain sanity among people, tackle the fears of isolation during the lockdown, and find hope in the most devastating situations. The electronic platform has stepped up and sincerely attempted to offer any updates and information on the disease on a real-time basis. With Twitter, the most reliable information from public health authorities could directly reach the people in real-time. At the same time, Facebook, Twitter, YouTube, and other social media sites are also open to public views, opinions, and exchange of thoughts which can provoke fear among all, if in case the information available is taunting or untrue. Unfortunately, we have witnessed the rapid flow of unauthentic information in these platforms including the Internet that consequentially alters the behavior of the public during the pandemic period.

ADVANTAGES OF THE MEDIA DURING COVID-19

Health care workers have been frontline workers in handling the COVID-19 pandemic who are presently well prepared than the initial outbreak with better equipment and clinical knowledge to address the situation. However, the presence of stressors in the work environment and being in isolation at regular intervals with the constant stress of fear of contracting the virus weighed them down. During such times, the social media platforms such as Twitter and Facebook, chat forums, and web meetings have been the medium to communicate and connect with their loved ones. Again, with no background references or guidelines available to counter the COVID-19 pandemic, the rapid sharing of clinical case knowledge by the health care workers in real-time through tweets, webinars, and infographics emerged as a potential knowledge resource for physicians worldwide to gain better insights into the

novel coronavirus. Social media platforms have been important mediums for connecting health care units to cope with medical equipment shortages globally.¹² Another greatest advantage is that many of the social media platforms assist in providing real-time data regarding the disease, especially when location services are tagged, and this helps individuals closely monitor the current situation. Hashtags and keywords that gain popularity among people are a sheer reflection of public opinion from which the government can get clarity regarding how people feel.⁵ Positive patients were isolated either in hospitals or at home to prevent the spread of infection and during these times social media was a blessing in disguise wherein quarantined patients were able to communicate through text, voice, or video messages allowing virtually interaction.

Social media also aided health care workers to motivate their community members, offer peer group support and work out ethical dilemmas that arise during patient care. Overall, social media assisted effective virtual communication, overcoming boredom and psychological stress related to isolation and quarantine, and minimized issues of anxiety and frustration among people.

DISADVANTAGES OF MEDIA DURING COVID-19

Though the role essayed by social media is appreciative of the swift dispense of information on COVID-19, its contribution in stirring fear, panic, anxiety, and confusion among the perplexed masses is undeniable. Further, the authenticity of the information is also questioned at times during distressing situations. Media is a sensitive platform with an ability to disseminate, concentrate and rebroadcast the information. For example, "What are the symptoms of Coronavirus?" or "Garlic and hot water are the best cures against the deadly virus" are some of the repeated forwards which are unauthenticated by health care professionals received by the majority of the population through various social media platforms. While some pursue the recommended home remedies without scrutinizing, others ended up worsening their situation. Such occurrences may have encouraged some dubious people to create notorious baseless malicious messages. A study reports that almost 27.5% of YouTube videos on COVID-19 contained misinformation which had over 62 million views⁵ supporting the prolific spread but of inaccurate data adding to the chaos of the situation.

In similar terms, invalid circulation on the possible benefits of chloroquine, an antimalarial drug, in treating COVID-19 led to overstocking of the drug worldwide while some even succumbed to overdosage.¹³ Predominant population even restored to herbal products and drinks as a possible cure against COVID-19, again due to the misinformation spread through social media platforms,⁵ though scientifically unproven yet pursued and hence responsible for debilitating consequences. A study by Basch et al. focused on 100 frequently viewed YouTube videos with the search word "coronavirus". They found more than 165 million views on such videos by March 2020, out of which more than 80% belonged to news channels. While more than 90% highlighted the aspects of death, fear, and quarantine, less than 50% discussed the symptoms, and regrettably lesser than a quarter addressed the preventive measures.¹⁴ While the social media platforms could rightly be considered to deliver precise, valid and quality information to the public, however, a shift in focus is noticed towards unnecessary and disturbing information that does no good.

A study in Iraq observed that individuals of age 18 to 35 years, who predominantly used Facebook for COVID-19 updates suffered

from psychological anxiety.¹ The prolific use of the Internet among adolescents and young adults during the lockdown period and thereon has created an emotional imbalance. Loneliness, poor sleep quality, depression, escapism, and addiction were some of the findings among the 185 adolescents who were primarily college and university students.¹⁵

However, many health care workers are novices to this platform, clueless in handling and consider it as a sheer waste of time accounting for more frustration than benefits. Some even fear lawsuits and damages to their professional life.

The elderly population is mostly at a disadvantage due to the digital divide between younger and older individuals.¹⁶ Inclusiveness is essential to encourage older adults to participate in social media interactions with authentic information without any stigmatization. Hundreds of messages are circulated by millions of people globally and a majority of them seemed to be untrustworthy. The wide news coverage and the extensive passing of unauthorized messages pave the way to a panic situation among the public, called "headline stress disorder".

Embracing and adapting to change is an important survival strategy inculcated by humans for their survival. During COVID-19, social media transformed into an extremely functional platform that had its own strengths and weakness. Each individual must use our discretion to personally authenticate the information from reliable sources before accepting and forwarding the same.

CONCLUSION

Social media's ability for rapid communication during the COVID-19 pandemic in terms of the exchange of critical information, scientific findings, treatment methodologies, follow-up protocols, and sharing of related equipment is remarkable. It has become an intangible part of the health care system. So, rather than focusing on its liabilities, emphasis should be concentrated on its abilities instead. Therefore, social media is a powerful tool for spreading information and knowledge but could cause unsurmountable side effects if misused.

ORCID

Satish Vishwanathaiah  <https://orcid.org/0000-0002-8376-297X>
 Prabhadevi C Maganur  <https://orcid.org/0000-0002-0959-2597>
 Varsha Manoharan  <https://orcid.org/0000-0002-8409-5996>
 Ganesh Jeevanandan  <https://orcid.org/0000-0003-3631-6982>
 Zaki Hakami  <https://orcid.org/0000-0002-6380-4124>
 Sanjeev Khanagar  <https://orcid.org/0000-0002-4098-7773>
 Shankaragouda Patil  <https://orcid.org/0000-0001-7246-5497>

REFERENCES

1. Ahmad AR, Murad HR. The impact of social media on panic during the COVID-19 pandemic in Iraqi Kurdistan: online questionnaire study. *J Med Internet Res* 2020;22(5):e19556. DOI: 10.2196/19556.
2. Sahni H, Sharma H. Role of social media during the COVID-19 pandemic: beneficial, destructive, or reconstructive? *Int J Acad Med* 2020;6(2):70. DOI: 10.4103/IJAM.IJAM_50_20.
3. Anwar A, Malik M, Raees V, et al. Role of mass media and public health communications in the COVID-19 pandemic. *Cureus* 2020;12(9). DOI: 10.7759/cureus.10453.
4. Coronavirus: 87% increase in social media usage amid lockdown. Available from: <https://timesofindia.indiatimes.com/business/india-business/social-media-usage-jumps-87-as-people-spend-over-4-hours-daily/articleshow/74879674.cms> [Accessed on June 23, 2021].

5. Hussain W. Role of social media in covid-19 pandemic. *Int J Front Sci* 2020;4(2):59–60. DOI: 10.37978/tjifs.v4i2.144.
6. Yan Q, Tang S, Gabriele S, et al. Media coverage and hospital notifications: correlation analysis and optimal media impact duration to manage a pandemic. *J Theor Biol* 2016;390:1–13. DOI: 10.1016/j.jtbi.2015.11.002.
7. McCauley M, Minsky S, Viswanath K. The H1N1 pandemic: media frames, stigmatization and coping. *BMC Public Health* 2013;13(1):1116. DOI: 10.1186/1471-2458-13-1116.
8. Wang Q, Zhao L, Huang R, et al. Interaction of media and disease dynamics and its impact on emerging infection management. *Discrete Contin Dyn Syst B* 2015;20(1):215. DOI: 10.3934/dcdsb.2015.20.215.
9. Maciel-Lima SM, Rasia JM, Bagatelli RC, et al. The impact that the influenza A (H1N1) pandemic had on news reporting in the state of Paraná, Brazil. *Hist Ciênc Saúde-Manguinhos* 2015;22(1):273–291. DOI: 10.1590/S0104-59702015000100016.
10. Measuring digital development: facts and figures 2020. Available from: <https://www.itu.int/en/ITU-D/Statistics/Pages/facts/default.aspx> [Accessed on June 20, 2021].
11. Beck F, Richard JB, Nguyen-Thanh V, et al. Use of the internet as a health information resource among French young adults: results from a nationally representative survey. *J Med Internet Res* 2014;16(5):e128. DOI: 10.2196/jmir.2934.
12. Aggarwal NR, Alasnag M, Mamas MA. Social media in the era of COVID-19. *Open Heart* 2020;7(2):e001352. DOI: 10.1136/openhrt-2020-001352.
13. Obi-Ani NA, Anikwenze C, Isiani MC. Social media and the Covid-19 pandemic: observations from Nigeria. *Cogent Arts Humanit* 2020;7(1):1799483. DOI: 10.1080/23311983.2020.1799483.
14. González-Padilla DA, Tortolero-Blanco L. Social media influence in the COVID-19 pandemic. *Int Braz J Urol* 2020;46:120–124. DOI: 10.1590/S1677-5538.IBJU.2020.S121.
15. Fernandes B, Biswas UN, Mansukhani RT, et al. The impact of COVID-19 lockdown on internet use and escapism in adolescents. *Rev Psicol Clín con Niños Adolesc* 2020;7(3):59–65. DOI: 10.21134/rpcna.2020.mon.2056.
16. Soto-Perez-de-Celis E. Social media, ageism, and older adults during the COVID-19 pandemic. *EClinicalMedicine* 2020;29:100634. DOI: 10.1016/j.eclinm.2020.100634.