
*The Risk in the Dissemination of the Covid-19 Pandemic
Misinfodemics to the General Public through Social
Media in Nigeria*

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Abstract

So many countries all over the world including Nigeria are facing the extensive spread of corona virus known as covid-19. This pandemic puts intensive pressure on education, economic, and social structures. During this crisis, lack of awareness, knowledge, and preparedness would put the general public at risk. The dilemma is how to pass the information of current disease statistics and its prevention to the general population at a rate equivalent to or better than the spreading epidemic. At the same time, a huge amount of health-threatening misinformation is spreading at a faster rate than the disease itself. The major percentage of this false rumor is disseminated through social media. Thus, delivering fast, accurate and reliable information addressing critical problems of infection control is, therefore, of key importance. This review outlines both the positive and negative impact of social media during corona virus epidemic on professionals and on the general public. However, if used wisely and prudently, social media serves as a powerful tool for changing people's behavior and to promote the well-being of individual and the general public at large.

Keywords: Misinfodemics, Corona virus, social media, Dissemination, Risk.

Introduction

Corona virus, is rapidly spreading in Nigeria and to the rest of the world from its origin in Wuhan City, China. This deadly and life-threatening virus infected 2,549,632 people and resulted in 175,825 deaths around the world. In Nigeria there are currently 9,610 positive corona infected cases (till 24 July 2020) as reported by the Ministry of Health and Nigerian Center for Disease Control (NCDC).

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>.

On this sudden outbreak, the public needs access to timely and reliable information about the disease symptoms and its prevention. Nowadays, social media are often seen as fast and effective platforms for searching, sharing, and distributing information among the general population. Also, social media serves to provide an important informal source of data to identify any health information that has not been reported and to uncover or share perspectives on any life-threatening health-related issues. But this channel of disseminating knowledge sometimes mixed with scare tactics, discrimination, misleading reports and conspiracy theories related to the origin of the virus, its spread and mass buying of face masks, all closely connected to the modern 21st century social media networks. Despite the importance of rapid access to information in these critical

situations, poor comprehension, inaccurate or false information in the format of rumors or unreliable news can lead to misunderstanding in the community, which makes the situation worse, (Larson, 2018; Van Der Meer, *et. al.*, 2020).

Risk of Misinfodemics During Covid - 19

The outbreak of this virus is not the first of its kind after all, infectious diseases have to come from somewhere. What is new is the fact we have the technology to identify it fast, track it, stop it, cure it, and vaccinate against it, we are literally watching the birth of a new human infection in real time.

But what is also new is that never before has there been so much true falls, information exploding through our media channels of which there are vast numbers, reaching almost every community on earth.

This unprecedented flow of information has enabled remarkable progress to be made in both controlling this out break as well as potential cures and vaccines, all in a month. However, along with useful facts have come rumours, and misinformation. This has led to confusion, politicking, stigmatization, hysteria and worst of all xenophobia. The WHO can't do it alone. This is a problem that requires efforts at all levels – from government, to health sector, to communities, key influences and the public.

Misinfodemics creates confusion, and spreads fear, hampering the outbreak response. “Misinfodemics on the corona virus might be the most contagious thing about it.” These circumstances can lead to an increase in the people's unnecessary expectations requiring diagnostic, medication, or referral services as for instance taken as shortage and black marketing of face masks and hand sanitizer generally. As for low- and middle-income countries with limited health services, like Nigeria, this can make the situation worse because we don't have enough workforce and financial resources to cope up with this epidemic. Yet we are managing with our own level at its best, but it seems like the virus' potential path is uncertain. Hence, this review provides a bird's eye view of the impact of social media on the general public during this CoVid-19 pandemic . Government and health professionals must embrace and make plans for the use of social media, work together, establish limits and build guidelines for its usage, and above all, make them work for the general public, (Atlani-Duault *et. al.*, 2020).

The Telecommunication report revealed that 53.6% of the global population, or 4.1 billion people, uses the Internet till the end of 2019. With over 560 million Internet users, Nigeria is one of the countries that is

the largest online market globally. The most popular social networking sites are YouTube and Facebook. Indeed Nigeria is one of the largest Facebook user base in the world. WhatsApp, Instagram, and Facebook Messenger are recently a few of the other famous social networking sites used in Nigeria, (<https://www.itu.int/en/ITU-D/Statistics/Pages/default.aspx>).

The general public abuse the use of handsets likewise a study reported by The Lancet described WhatsApp” in which a young women had wrist pain because of sending too many messages from her phone, as almost every person is having Internet in their cell phones, laptop and everyone is capable of sending text messages and information, nowadays instead of “alert,” “panic” transmit faster when compare to Covid-19 disease itself.

In the environment in which people are born, live, study, work, play, worship, and age are social determinants of health, which are the factors that influence a wide variety of health outcomes, risks, and overall quality of life. Based on these determinants' educational organizations and public health professionals enormously used social media for health guidance and for any outbreak's prevention. The general public,

Organizations, and health agencies have opened YouTube, Facebook, and Twitter pages to get access to good information. But these pages or sites should be used with precautions by all and other agencies as any misinformatics creates havoc among the general public. To prevent this at some level, many organizations have social media utilization standards for the people and other staff. The use of social media for any public health crisis requires complete consideration and dedication, (http://www.who.int/social_determinants/en).

71% of the world's Internet users are youth aged 18–35. In Nigeria, there were 206.139,589 million active social media users (14% of the total population). According to the 2020 Digital Health Literacy Survey among European Citizens, 59% of Europeans used the Internet to check for health information. 55% requested general information, 54% requested information about a particular illness, 23% sought detailed information on a diagnosis, and 10% used the net to get a second opinion after consulting their physician. Approximately 82% and 87% of people looking for health-related information used search engines for their queries. The second source of information (47%–48% people) was relevant and

dedicated websites such as health blogs and forums, while between 33% and 38% were looking for information from official health websites, such as the Ministry of Health or the WHO. Another study performed by Public Health Dentists of Bengaluru India in 2014 revealed that out of 572 study participants, 150 (26.2%) reported the use of the Internet for oral health-related information, overall more than 80% of the respondents preferred the use of Google as their search engine but when asked about any research article and journal website they could not picture anything, (Wilder-Smith and Freedman, 2020).

At this time, when no other ways available to cure or manage Covid-19 other than quarantine and social distancing. Social media become a strong platform for spreading public health awareness and advocacy regarding public health issues. Some nations do have Twitter and Face book accounts for these purposes. The Center for Disease Control (CDC) should maintains an active page on Twitter and Facebook as these platforms allows users to post large numbers of short messages in less period (known as Microblogs) also these organizations use to monitor “tweets” that may signify any outbreak and share information on events of this nature. Social networking sites also serve as a way for

disaster management, outbreak prevention, and emergency response staff to easily communicate and access critical information collected by organizations like the WHO and the Center for Disease Control. A study showed that during the Ebola (2014) and Zika (1947) outbreak, social networks helped the WHO to establish active communications with the community and then applied it to improve in public health.^[26] Another evidence indicates that in 2016, when the WHO declared Zika virus as a danger to the world, social media monitoring and prevention awareness messages played as a lifesaving role in enhancing risk control and disease management, (Chauhan, *et al.*, 2020; <https://twitter.com/cdcgov>.)

The Panic from Social Media during this Pandemic

With its capacity to bring people closer than ever before, social media has also set new and special challenges, including phenomena of Cyber-bullying, exploiting public opinion, and other forms of crime. The pandemic of CoVid-19 is affecting global health and now become a Public Health Emergency of International Concern (PHEIC) as declared by the WHO, (Stawicki, 2020).

While the Internet is seen as an effective source for obtaining health information, it

can be used as a means of disseminating misinfodemics. As standard research methods include methodology and peer review, this analysis also includes a framework for inspections which balances to minimize the risk of inaccurate or inappropriate content dissemination; social media platforms will often encourage open membership, and in large part unrestricted exchange of ideas under 'protecting and allowing free' principles expression – sadly because of short legal consequences, there is little or no accountability for what is said or communicated. (Stawicki, *et al.*, 2020).

This spreading of panic and misinformation about CoVid-19 is termed as “Misinfodemics.” Sharing and spreading timely and transparent information, especially when the news is unfavorable and the predicting uncertainty is clearly an integral part of managing large-scale epidemics and other emergencies. All such interaction should be routine between government agencies and the general public to develop trust that becomes critical during epidemics. In today's world, reaching the general population – especially in times of public health crisis – it takes more than common mass media like some of the channels which are behind paywalls. Other parts of the world and exchange of knowledge strengthened the response to the

outbreak. The last outbreak of Ebola in Western Africa is yet another clear example of the ability of social networks to influence the actions of people. This news of the epidemic created a fearful environment globally with rumors and misinformation, which rapidly spreads through social networks. Several studies had investigated the role that social media have played in spreading misinformation about Ebola. A study published in the British medical journal analyzed tweets about the Ebola outbreak from African countries. The researchers revealed that most of the messages contained false information, and 'fake' tweets were more retweeted than those comprising "truthful" facts. Odum and Yoon (2007) also state that various senses of public anxiety, anger, and health information seeking global Ebola-related goals were identified during the Ebola epidemic through Twitter's 2014 to 2016 content review. Furthermore, social networks helped spread conspiracy theories,

<http://www.bbc.com/news/technology-29610865>).

According to the evidence published, the major reasons behind COVID-19 misinformation are cultural influences, continuous compulsion demands during disease prevalence, trouble-free dissemination of false news through online

media, financial incentives, and lack of supervision. Marketing and financial benefits also triggered misinformation disseminated, as found in other studies, (Carey, 2020).

Social media conveyed information about the personality, beliefs, and interests of an individual; it also creates the initial impression which persists in the mind of people. Perceptions may be based on some of the details in a social media profile, such as photos, nicknames, links, and statements, posts, and comments that a person likes or shares, as well as friends, charities, organizations, games, and media that a person follows. Some health professional users strive to keep their personal and professional social accounts separate by having different social profiles. However, some of the social networking sites provide privacy settings that allow users to modify and manage both their profile content and select the people who can view their posts. HCPs must check their own names or other identifying details carefully to ensure that their social media activity projects a professional image of them, (Peck, 2015). A lack of accuracy and reliability is the major drawback of health information found on social media or on other online sources. Medical or health-related information posted on social media sites are

often anonymous in nature. Moreover, these kinds of health information are always incomplete, informal, and without references. Many users post false description videos on YouTube and Facebook just for getting views and followers. HCPs should guide people and their patients to seek information only on reputable peer-reviewed websites where quality assurance is the focus of the information. The WHO, therefore, addressed the Internet provider company for assigned names and numbers to create a new domain suffix that can be used only for validated information on health. So that if people search for any particular disease or health-related topic, then the search engines should give priority to only those domain addresses which provide reliable results and truthful facts, (Moorhead, 2013).

A study found that, during the outbreak of Zika in 1947 and the prevalence of yellow fever in 2016, misconceptions about the transferring of virus and its side effects were widely disseminated. Furthermore, Li, published a literature review study found that dissemination of misinfodemics about health can lead to unnecessary and undesirable outcomes such as fear, anxiety, misunderstanding of the disease, and problems in the patient-doctor relationship. To tackle this, WHO has

initiated a dedicated WhatsApp and Facebook messaging services in Arabic, English, French, Hindi, Italian, Spanish and Portuguese languages to keep people safe and aware of the facts related to the coronavirus. This easy-to-use chat app has the ability to cover 2 billion people, and it also allows WHO to directly get in touch with those people who need it. <https://www.who.int/news-room/feature-stories/detail/who-health-alert-brings-covid-19-facts-to-billions-via-whatsapp>).

Conclusion

A significant amount of potentially dangerous mis-infodemics has been generated about the COVID-19 pandemic, and much of it has been disseminated via social media networks. This misleading news consists of different facets of the epidemic, which is capable of threatening public safety, which again aggravates crisis management. This false rumor about COVID-19 is disseminated faster than the virus, and it appears that the social media are actively battling against two faces of the virus and misinfodemics simultaneously.

Suggestions

The key approach suggested in this review was to correct misconceptions by health institutions experts. Although some studies stress that corrects knowledge can be unsuccessful during any public health crisis

but at the same time many researches demonstrated the efficacy of providing and transmitting truthful facts by those concerned. We also suggest various methods for correcting misconceptions about corona virus through social media, which involves timely expert advice, regular public health awareness, and correction program with periodic communication among the general public and on media algorithms. We also want to draw attention to a correction program which will be successful if it is applied quickly and clearly, along with relevant document, at the same time evidence should also be provided and shown to the public. With all these above-mentioned ways one should always address the intellectual and emotional dimensions of the audiences during this phase of fear and anxiety. As the virus tends to be spreading too quickly to interrupt but still too deadly to be ignored. There are many lessons learned during this corona virus epidemic, which will serve as a blueprint for coping with future pandemics, but the near future requires a sustainable new standard of management by all social medias.

Recommendations

Social media have always been the key platforms for spreading misinfodemics, and the primary topics of misinfodemics include disease statistics, medications,

methods of prevention, nutritional guidelines, and methods of transmitting the virus. The researcher recommends that the general public, students, and other trainees must be educated and guided regarding the judicious use of social media platforms in the context of the Health Information on corona virus pandemic in Nigeria and Africa as a whole, while not all of us can find a cure or invent a vaccine, we can be part of the solution to misinfodemics and not part of the problem by fact checking before sharing and sharing good information from reputable sources.

References

- Aarogya Setu Coronavirus Tracker App for Africa: How to Download, Setup and Use for COVID-19 Tracing; April 14, 2020. Available from: <https://indianexpress.com/article/technology/social/aarogya-setu-covid19coronavirus-tracking-app-Africa-how-to-setup-download-use-6347537/>. [Last retrieved on 2020 Apr 19].
- Account, C. D. C. V. (2020, April 15). CDC (@CDCgov). Available from: <https://twitter.com/cdcgov>. [Last retrieved on 2020 Apr 19].
- Atlani-Duault, L., Ward, J.K., Roy, M., Morin, C. and Wilson, A. (2020)

- Tracking online heroisation and blame in epidemics. *Lancet Public Health*, 5:e137-e138.
- Bastani, P. and Bahrami, M.A., (2020). COVID-19 Related Misinformation on Social Media: A Qualitative Study from Iran [published online ahead of print, 2020 Apr 05]. *J. Med. Internet Res.*, 10.2196/18932.
- Bernhardt, M., Alber, J. and Gold, R.S. (2014). A social media primer for professionals: Digital do's and don'ts. *Health Promot. Pract.*, 15:168-72.
- Carey, J.M., Chi, V., Flynn, D.J., Nyhan, B. and Zeitzoff, T. (2020). The effects of corrective information about disease epidemics and outbreaks: Evidence from Zika and yellow fever in Brazil. *Science Adv.*, 6:eaaw7449.
- Charles-Smith, L.E., Reynolds T.L., Cameron, M.A., Conway, M., Lau, E.H. and Olsen, J.M., et al. (2015). Using social media for actionable disease surveillance and outbreak management: A systematic literature review. *PLoS One*, 10:e0139701.
- Chauhan, B., George, R. and Coffin, J. (2012). Social media and you: What every physician needs to know. *J. Med. Pract. Manage*, 2012;28:206-9.
- Coronavirus. Available from: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>. [Last retrieved on 2020 Apr 24].
- European Citizens' Digital Health Literacy (2020) (n.d.). Available from: http://ec.europa.eu/commfrontoffice/publicopinion/flash/fl_404_summary_en.pdf. [Last retrieved on 2020 Apr 19].
- Farnan, J.M., Snyder, Sulmasy L., Worster, B.K., Chaudhry, H.J., Rhyne, J.A. and Arora, V.M., et al. (2013). Online medical professionalism: Patient and public relationships: Policy statement from the American College of Physicians and the Federation of State Medical Boards. *Ann Intern Med.*;158:620-7.
- Fernández-Luque, L. and Bau, T. (2015). Health and social media: Perfect storm of information, 21:67-73.
- Gesse, R., Edelsburg, A., Diamant, A., Hijazi, R. and Mesch, G.S. (2018). Correcting misinformation by health organizations during measles

- outbreaks: A controlled experiment. *PLoS One*,13:e0209505.
- Grajales, F.J. 3rd, Sheps, S., H. K., Novak-Lauscher, H. and Eysenbach, G. (2014). Social media: A review and tutorial of applications in medicine and health care. *J. Med. Internet Res.*, 16:e13.
- Heijman, P. and Gale, J. (2020). As Asia panics, one country wins praise for approach to virus. Bloomberg. Available from: <https://www.bloomberg.com/news/articles/2020-0210/as-asia-panics-one-country-winspraise-for-approach-to-virus>. [Last accessed on 2020 Apr 19; Last retrieved on 2020 Apr 22].
- Househ, M. (2013). The use of social media in healthcare: Organizational, clinical, and patient perspectives. *Stud Health Technology Inform.*,183:244-8.
- Hsu, L.Y., Chia, P.Y., Vasoo, S. A. (2020). Midpoint perspective on the COVID-19 pandemic [published online ahead of print, 2020 Mar 25]. *Singapore Med. J.*, 10.11622/smedj.2020036.
- International Telecommunication Union. Measuring the Information Society Report (2019). Geneva: International Telecommunication Union; Available from: <https://www.itu.int/en/ITU-D/Statistics/Pages/default.aspx>. [Last retrieved on 2020 Apr 19].
- Kelion, L. (2014). Ebola Text-Message System Set to Expand. London: BBC News. Available from: <http://www.bbc.com/news/technology-29610865>. [Last retrieved on 2020 Apr 22].
- Larson, H.J., (2018). The biggest pandemic risk? Viral misinformation. *Nature*, 562:309.
- Ministry of Health #StayHome #StaySafeVerified Account. Ministry of Health #StayHome #StaySafe (@MoHFW_INDIA); 2 April, 2020. Available from: https://twitter.com/MoHFW_Africa. [Last retrieved on 2020 Apr 19].
- Ministry of Health and Family Welfare. (n.d.). Available from: <https://www.mohfw.gov.in/dashboard/index.php>. [Last retrieved on 2020 Apr 24].
- Moorhead, S.A., Hazlet, D.E., Harrison, L., Carroll, J.K., Irwin, A. and Hoving,

- C, *et al* (2013). A new dimension of health care: Systemic review of the uses, benefits, and limitations of social media for health care professionals. *J. Med. Internet Res.*, 15:E85.
- Nursing and Midwifery Council (2015). Social Media Guidance; Available from: <https://www.nmc.org.uk/standards/guidance/social-media-guidance>. [Last retrieved on 2020 Apr 19].
- Odlum, M. and Yoon, S. (2018). Health information needs and health seeking behavior during the 2014-2016 ebola outbreak: A twitter content analysis, 10: ecurrents.outbreaks. fa814fb2bec36e29b718ab6af66124fa.
- Oyeyemi, S.O., Gabarron, E. and Wynn, R. (2014). Ebola, Twitter, and misinformation: A dangerous combination? *BMJ*, 49:g6178.
- Peck, J.L. (2014). Social media in nursing education: Responsible integration for meaningful use. *J Nurs. Educ.*, 53:164-9.
- Salisbury NHS Foundation Trust (2015). Guidance on the Use of Mobile Phones and other Devices; Available from: <https://www.salisbury.nhs.uk/InformationForPatients/Pages/Guidanceontheuseofmoblephonesandotherdevices.aspx>. [Last retrieved on 2020 Apr 19].
- Stawicki, S.P., Firstenberg, M.S., (2020). Papadimos, T.J. The Growing Role of Social Media in International Health Security: The Good, the Bad, and the Ugly. *Global Health Security Recognizing Vulnerabilities, Creating Opportunities*. Switzerland AG: Springer Nature.
- Stawicki, T.T., Peck G.L., Galwankar S.C., Bahner D.P., Papadimos J.S. and Stawicki S.P., et al. (2018). From “pearls” to “tweets:” How social media and web-based applications are revolutionizing medical education. *Int. J. Acad. Med.*, 4:93-7.
- Van Der Meer, T.G. and Jin, Y. (2020). Seeking formula for misinformation treatment in public health crises: The effects of corrective information type and source. *Health Commun.*, 35:560-75.

WHO (2020). Health Alert Brings COVID-19 Facts to Billions via WhatsApp. Available from: <https://www.who.int/news-room/feature-stories/detail/who-health-alert-brings-covid-19-facts-to-billions-via-whatsapp>. [Last retrieved on 2020 Apr 22].

andle/10665/259807/9789241550208eng.pdf; jsessionid=D6796FA0ECAD7D6A4E4C5456A762BDB2?sequence=2 . [Last retrieved on 2020 Apr 22].

Wilder-Smith, A. and Freedman, D.O. (2020). Isolation, quarantine, social distancing and community containment: Pivotal role for old-style public health measures in the novel coronavirus (2019-nCoV) outbreak. *J Travel Med* 27:taaa020.

World Health Organization (2020). Commission on Social Determinants of Health. Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health. Available from: http://www.who.int/social_determinants/en. [Last retrieved on 2020 Apr 19].

World Health Organization. (2020). Communicating Risk in Public Health Emergencies. WHO Guideline for Emergency Risk Communication (ERC) Policy and Practice. Available from: <https://apps.who.int/iris/bitstream/h>