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Abstract

Purpose: The purpose of this paper is to explore the transmission of Covid-19 (coronavirus) pandemic and the roles of librarians in curbing its spread. With the recent outbreak of corona virus, known as Covid-19, the global community has been thrown into fear and anxiety as a result of its high rate of community transmission.

Design/Methodology/Approach: The paper adopted conceptual approach. It examines the modes of transmission of Covid 19; media platforms used by librarians in providing information to people on Covid 19 transmissions; and roles of librarians in curbing the transmission of Covid 19 pandemic.

Implication: Over 13, 299, 163 confirmed cases of coronavirus in over 206 countries with 578, 319 deaths have been reported. If precautionary measures are not taken by librarians to provide valid information to the public, it will undoubtedly increase the transmission geometrically on daily basis

Originality/Value: It was concluded that in this COVID-19 pandemic era, librarians need to disseminate valid information with their patrons using social sites and media platforms on adapting social distance, hand washing, wearing of face mask, avoiding over-crowded places and practicing good hygiene culture which are the keys to protecting ourselves from this geometric transmission of the COVID-19 virus

Keywords: Transmission, COVID-19, Librarians, Health Information, Social media platforms, Global health

Introduction

Coronavirus known as "COVID-19" first appeared in the city of Wuhan, China, and has spread rapidly to almost all countries across the world. Initially, no evidence was found that it was manufactured in a laboratory or otherwise engineered (Holshue, DeBolt, Lindquist, Lofy, Wiesman, Bruce & Tural, 2020). Several authors have discussed the origin of the virus. For example, Andersen, Rambaut, Lipkin, Holmes and Garry (2020) confirmed that it originated through natural process. Zhou, et al (2020) investigations have shown that some bat SARS-CoVs have the possibility to infect human. The COVID-19 pandemic is rapidly spreading to countries around the globe (Lipsitch, Swerdlow & Finelli, 2020).

According to World Health Organization (WHO) (2020) corona virus disease is an infectious disease caused by a newly discovered coronavirus which affect people in different ways. COVID-19 seems to spread from person to person by the same mechanism as other common cold or influenza viruses—i.e. by face to face contact with a sneeze or cough, or from

contact with secretions of people who are infected. The role of fecal–oral transmission is yet to be determined in COVID-19 but was found to occur during the earlier Severe Acute Respiratory Syndrome (SARS) outbreak (Heymann & Shindo, 2020). The common symptoms include fever, dry cough, tiredness, shortness of breath, pains and aches, sore throat, and very few people will report diarrhoea, nausea or a runny nose (WHO, 2020).

As at 15th July 2020, 00:15 GMT, the European Centre for Disease Prevention and Control (ECDC, 2020) report shows that there are 13,299,163 confirmed cases of coronavirus in over 206 countries with 578,319 deaths. Presently, the global community is ravaged by the pandemic while the end to the COVID-19 pandemic still remains unknown due to variations of its spread among the countries. The transmission of this virus is very high as majority of citizens are uninformed (Jogwu, 2010) and this might be due to lack of public awareness on sign and symptoms of the virus, and poor advices for the public on how to protect or cure themselves from the virus. To contend the spread of this virus, WHO continues to advise

that everyone maintain hand hygiene regularly, follows respiratory etiquette recommendations and frequently clean and disinfect surfaces (WHO, 2020). Also, other measures to curb the transmission of Covid 19 as recommended by Ladan, Haruna and Madu (2020) include; maintaining physical distances, averting people with fever or respiratory symptoms, lockdown. i.e. stop all movement in and out of an area until all the virus is defeated, no travel and no mass gatherings. Only essential movements are allowed. These preventive measures are seen to help in reducing the viral transmission of Covid19; hence the drawing of the attention of the relevant organizations as well as professionals in various fields to quickly take necessary measures to control the transmission of the virus. One of such organizations/professionals who have lived up to its expectation in this regards is the libraries and librarians

Librarians as information specialist are responsible for ensuring public health awareness and the provision of up to date information to rural and public dwellers, and serve as information consultants to clinics and health managers (Ali & Gatiti, 2020). The roles of the librarians are more crucial in the face of the prevailing global Covid 19 pandemic. It is apparent that fake news and misinformation can create confusion and subsequently, pose greater challenge to every effort to curtail the transmission of Covid 19 among the people. In this regard, librarians in academic, special and public libraries in Nigeria can provide and share information quickly, efficiently and in real-time as strategies in response to COVID-19 pandemic through their social networking pages like Facebook, Twitter, Instagram and LinkedIn (Ladan, Haruna & Madu, 2020). They can provide a platform for gathering and disseminating information to promote awareness of the current situation.

However, in recent time, multiple information sources and diverse communication channels have emerged which makes it confusing for users to access the most valid information. It is estimated that there are 11 different types of information sources ranging from valid

information to untrusted or doubtful information (Ashrafi-Rizi, & Kazempour, 2019). With the proliferation of information about Covid 19, there are fears that its transmission will be very high if people are not provided with relevant and useful information. Therefore, this paper will dwell on the transmission of COVID-19 (Coronavirus) pandemic and the roles of librarians in curbing its spread.

Modes of Transmission of Covid 19

The novel coronavirus outbreak, coronavirus disease 2019 (COVID-19), which was declared a pandemic by the World Health Organization (WHO) in March 11th, 2020, has infected over 13 million people and caused nearly 579,000 fatalities over 206 countries (World Health Organization, 2020). The novel coronavirus, named as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), belongs to the family of the pathogen that is responsible for respiratory illness linked to the 2002–2003 outbreak (SARS-CoV-1) (Fehr & Perlman, 2015). The enveloped virus contains a positive-sense single-stranded RNA genome and a nucleocapsid of helical symmetry of ~120 nm. Judging from the rate of infection gathered on its spread, available evidence indicates that COVID-19 virus is transmitted during close contact through respiratory droplets (such as coughing) and by fomites 2-8 (World Health Organisation (2020).

Furthermore, the virus can spread directly from person to person when a COVID-19 infected person coughs or exhales producing droplets that reach the nose, mouth or eyes of another person. Alternatively, as the droplets are too heavy to be airborne, they land on objects and surfaces surrounding the person. Other people become infected with COVID-19 by touching these contaminated objects or surfaces, then touching their eyes, nose or mouth. According to the currently available evidence, transmission through smaller droplet nuclei (airborne transmission) that propagate through air at distances longer than 1 meter is limited to aerosol generating procedures during clinical care of COVID-19 patients (Ladan, Haruna & Madu, 2020).

Also, large droplets readily settle out of air to cause person/object contamination; in contrast, aerosols are efficiently dispersed in air. While transmission via direct or indirect contact occurs in a short range, airborne transmission via aerosols can occur over an extended distance and time. Inhaled virus-bearing aerosols deposit directly along the human respiratory tract. Previous experimental and observational studies on inter-human transmission have indicated a significant role of aerosols in the transmission of many respiratory viruses, including influenza virus, SARS-CoV-1, and Middle East Respiratory Syndrome coronavirus (MERS-CoV) (Pyankov, Bodnev, Pyankova & Agranovski, 2018).

The COVID-19 outbreak is significantly more pronounced than that of 2002/2003 SARS, and the disease continues to spread at an alarming rate worldwide, despite extreme measures taken by many countries to constrain the pandemic (WHO, 2020). The enormous scope and magnitude of the COVID-19 outbreak reflect not only a highly contagious nature but also exceedingly efficient transmission for SARS-CoV-2. Currently, the mechanisms to spread the virus remain uncertain (Lewis, 2020), particularly considering the relative contribution of the contact vs. airborne transmission routes to this global pandemic. Available epidemiological (WHO, 2020) and experimental (van Doremalen et al., 2020; Liu et al., 2020) evidence, however, implicates airborne transmission of SARS-CoV-2 via aerosols as a potential route for the spreading of the disease.

Media platforms used by librarians in providing information to people on Covid 19 Transmission

Media platforms are avenues through which information on health and other matters are provided to a wide range of people. They comprised of prints, electronic and social media network sites which provide information for individuals, groups and organisations and create presence for them to share information through texts, photos, music videos etc. According to Allcott, Gentzkow and Yu (2019), the more worrisome aspect of the media platforms, most especially the electronic and social media is its potency to be used to spread fake health news with its significant negative effects on the society

and on people's decisions and behaviours. These media platforms have promoted fake news which has succeeded in convincing people of an untrue message and this is obviously quite worrisome (Aymanns, Foerster & Georg, 2017).

As scientists and health professionals search for solutions to halt the transmission of COVID-19, librarians have the important role of disseminating COVID-19-related information and resources to the public through various virtual media channels available to them, especially as most people may not come to the library or because the library may be closed during the COVID-19 pandemic (Okike, 2020). Librarians can partner with mass media agencies, including TV and radio to lease out information on COVID-19. Librarians can also leverage on posters, books, magazines and newspapers, and video clips that shows the transmission mode of the COVID-19. The internet is also another source of health information (Mills & Sullivan, cited in Okike, 2020). They posited that internet media related sources offer broad coverage for the communication of messages to reach a vast number of the target audience quickly and frequently. In this regard, librarians can use these internet sources such as Google and Wiki to sensitize her users on COVID-19 pandemic.

In addition, librarians can utilize social media platforms such as Facebook, Whatsapp, LinkedIn, Instagram, Twitter, Netlog and other enhanced social sites to relate information to her patrons on COVID-19. Social media platforms are more appropriate for use in sharing information and delivering personalized information on transmission and related matters on COVID-19 to groups of people or individuals. Ezeani and Igwesi (2012) stated that librarians in Nigeria have started to use social media tools to be able to keep up with their patrons on real time. Social media platforms are used mostly to provide current and up to date information to clients on COVID-19, and provide links to other open source library resources. Ezeani and Eke (2011) posited that the most applicable web 2.0 technology enable librarians to interact with users on various information aspects and give a feedback, photo sharing- where archival pictures can be posted to users or uploaded on the library websites.

In the quest to meet up with the health information needs of people, librarians can use other mediums to reach and disseminate information on COVID-19. Shonhe (2017) suggests that librarians can use various information dissemination techniques such as personalized collections, SMS/text notifications, QR codes, online reference services, social networks, websites, mailing lists and OPACs. These media can be used to reach people's health matters such as COVID-19.

Text notifications via the use of mobile devices can disseminate information and multimedia content such as videos, images and audio files. Librarians can use this service to alert patrons regarding the latest information about COVID 19 pandemic, how to stay safe or other related information. On the use of Online reference services by librarians, Barnhart and Pierce (2011) noted that it allow librarians to create a bond with patrons and improve their efficiency through provision of a 24/7 reference and information service. These can be in form on information curbing the transmission of COVID-19. Librarians can also use the library websites to effectively share information, links, updates on transmission and infection of COVID-19.

The Role of Librarians in curbing the Transmission of Covid 19 Pandemic

With the recent rise in transmission and infection rates of COVID-19 on individuals, the need to guide and protect them from contracting this virus has become imperative. The potentials of librarians to acquire, evaluate, package, store and disseminate information, especially to the information poor society has placed a huge demand on them to intervene in critical situation such as COVID-19 pandemic era. Librarians can leverage on their ICT skills to provide information on the virus to their patrons. Bello and Aghadiuno (2019) suggest that the librarian must adapt and be knowledgeable in all fields of human endeavour and proficiency in using print and digital options for information dissemination. Since the health information needs of the people are on the COVID-19 pandemic, librarians need to carry out relevant researches and surveys on COVID-19 which will help to mitigate the transmission of the virus. As a result, librarians become adequately equipped

to disseminate necessary information based on needs assessment to diverse populations (Nkiko & Iroaganachi, 2015).

The librarians' roles are identified as follows:

a) Promoting public health awareness by disseminating information relating to preventive measures:

Librarians can offer this role by using their social and information gadgets to inform the poor information literate society on the preventive measures to curb the pandemic such as; staying indoors, practice remote working, home isolation, and monitoring the health of symptomatic individuals using telephone or online health consultations (Heymann & Shindo, 2020). Librarians can also create awareness campaigns about COVID-19 on steps individuals can take to prevent transmission - general instructions on using masks, hand washing, and the use of sanitizers, the avoidance of handshakes and various other ways to control the spread of the virus. All librarians in public, special and academic libraries have a responsibility to share evidence-based information about this pandemic. Other useful information might include histories from those who are recovering from this coronavirus and advice on good, nutrition and lifestyle which can reduce the risk of this disease (Ali & Gatiti, 2020). Librarians can also advice patrons on quarantine measures which is an effective measure to control a pandemic (Wilder-Smith & Freedman, 2020), as well as advice patrons on how to avoid misinformation through the different social media channels such as; Facebook, Twitter, WhatsApp, Instagram, etc. Librarians can share this information with patrons through institutional and personal social media accounts and platform.

b) Assist research team by providing information on latest developments on COVID-19:

In her effort to support the dissemination of information on COVID-19 transmission to patrons, librarians can support medical staff, academics, and research teams by drawing their attention to the latest developments regarding vaccination, diagnosis kits, and relevant studies published in medical journals. This published information can be summarized and sent to medical experts and patrons for use to enable them contain the transmission of the COVID-19.

Librarians can also publish new developments on COVID-19 and other related issues about the virus which can support the public in developing preventive measures on the transmission of the virus

c) Sustain relevant Library Services for patrons:

To sustain relevant Library Services for patrons during this COVID-19 era, librarians need to be more effective in their delivery of their mandate which is to support its regular users with new and updated information of general knowledge including issues of COVID-19. Since there is lockdown affecting the libraries, they are expected to provide virtual support to their users, such as provision of references, document delivery, literature searches, and systematic reviews. Some libraries have initiated online webinar sessions to keep in touch with their users via Google Classroom, Google Hangouts, Skype, or Zoom (Ali & Gatiti, 2020)

d) Collaborating with other institutions in information sharing:

With the need to support information sharing and access to information on COVID-19 to people from different parts of the world, some leading publishers such as Elsevier, Oxford, Wiley, BMJ, Nature, Emerald, and Cambridge have provided free access to the latest literature on Coronavirus (articles, papers, commentaries, case reports) (<http://library.ucmerced.edu/news/2020/publishers-offer-free-scholarly-access-response-covid-19>) Librarians need to share this information with clinicians, academics and researchers. Also, WHO's WhatsApp is one of the most reliable sources of information in the current crisis. Librarians too need to share the WhatsApp link (<https://www.who.int/news-room/feature-stories/detail/who-health-alert-brings-covid-19-facts-to-billions-via-whatsapp>) to library users in an effort to counter rumours and fake news (Ali & Gatiti, 2020). Librarians who share this authentic information to the general public, patients, medical and para medical staff tend to minimize fake news spread by some social media sites.

Challenges librarians face in playing these roles during Covid 19 pandemic.

In the face of the Covid 19 pandemic, librarians face a number of challenges in trying to play these roles of curbing the transmission and the

spread of Covid 19 pandemic on the people. Such challenges are:

- i. Lack of funds to procure systems and tools that will enhance the dissemination of information during the Covid 19 lockdown;
- ii. Lack of professional staff that are experienced in the dissemination of Covid 19 information during the Covid 19 lockdown;
- iii. Most materials in the libraries as used by librarians for curbing the transmission of Covid 19 virus are irrelevant, obsolete, and not up to date;
- iv. Most librarians are not interested to change to the new system or the new normal because they are used to the old mode of practice;
- v. Lack of appropriate training opportunities for Librarians to update their skills in line with the new normal;
- vi. Lack of needs analysis by most Librarians in dissemination of information aimed at curbing the transmission of Covid 19 virus;
- vii. Poor ICT and information policy is a major challenge for Librarians in curbing the transmission of Covid 19 virus; and
- viii. Lack of cooperation of the people to adhere to disseminated information that outlines the methods of curbing the transmission of Covid 19 virus

Conclusions

During the COVID-19 pandemic era, most countries are in community transmission level as infections have been very high. Researchers and other advocates have held that social distancing, hand washing, wearing of face mask, avoiding over-crowded places and practicing good hygiene culture are the keys to protecting ourselves from this geometric transmission level of the COVID-19 virus. However, while upholding these factors, other proponents have advised that in this information age, public health awareness is key to minimize COVID-19 causalities and its high rate of transmission. In this regard, librarians can play a vital role to disseminate this information with their patrons, health care workers, society, and communities. Sharing of these information to patrons by

librarians need to hit on the need to maintaining social distance which is very important during the lockdown phase. They can do these by utilizing social sites and media platforms such as Facebook, Twitter, WhatsApp, Instagram, etc as well as linking users with free access to the latest literature on Coronavirus (articles, papers, commentaries, case reports) from some leading publishers such as Elsevier, Oxford, Wiley, BMJ, Nature, Emerald, and Cambridge. These information channels as utilized by librarians in their dissemination of COVID-19 transmission information has played a vital role in informing and updating public health information to the general public and health care professionals.

Recommendations

Based on the challenges identified, the recommendations were that:

- i. Librarians have to be part of any educational framework that will promote literacy and information awareness on ways to curb the transmission of Covid 19 pandemic;
- ii. Librarians must be adequately financed to enable them key into any useful initiatives aimed at curbing the transmission of Covid 19 virus
- iii. Librarians must be adequately supported by implementable legislation that will drive their profession to informative roles to be more proactive
- iv. The governments should provide adequate tools to libraries that will enable them reach out to the people in an event of the lockdown or any future lockdown
- v. Libraries in curbing the transmission of Covid 19 virus should be made to made part of the task force committee on Covid 19 pandemic to enable them offer a unique and cost effective means of accessing information for all by sharing resources;
- vi. Libraries informative roles have to be based on a community needs analysis and such roles should be relevant to community needs;
- vii. Libraries will need to offer a wide range of informative activities with a special focus on reaching out to marginalized groups

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