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Contribution of Information Professionals in Combating Misinformation Surrounding the Current Coronavirus Disease (COVID-19) and Beyond

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ABSTRACT

This paper presents the findings of a study on the impact of COVID-19 misinformation and the role of information professionals in fighting this scourge. A quantitative research approach was deployed to collect data from Google scholar database and analysed via Statistical Package for Social Sciences. The study established that with regard to misinformation on the origins of COVID-19, 21 (44%) sources claimed that the disease originated from Wuhan city market. Results further revealed that concerning the impact of misinformation on the individual, social withdrawal, vulnerability and death (15, 48.4%) were the main impacts. As regards the role of information professionals, findings show that 18(58.1%) of the sources reported information packaging and repackaging as the main strategy for information dissemination. Findings suggest several ways for information professionals to minimise the spread and impact of COVID-19 misinformation. The study recommends a paradigm shift in information service delivery among information professionals while viewing the COVID-19 outbreak as an opportunity to reassert their roles in the changing information landscape.

Keywords: Coronavirus disease, Covid-19 pandemic, information professionals, Information provision, misinformation

INTRODUCTION

According to the World Health Organisation (WHO, 2020), the Coronavirus disease (COVID-19) is the first pandemic in history in which technology and social media are being used on a massive scale to keep people safe, informed, productive and connected. At the same time, the technology we rely on to keep connected and informed is enabling and amplifying an infodemic that continues to undermine the global response and jeopardizes measures to control the pandemic.

The COVID-19 pandemic has not only caused significant challenges for the health system globally but also fueled the surge of misinformation regarding the pandemic. This misinformation has negatively influenced healthy behaviors and promoted erroneous practices that instead have increased the spread of the virus and ultimately result in poor physical and mental health outcomes among individuals.

Chisita (2020) asserts that while the world is grappling with the greater risk of COVID-19 transmission and its impact on the global socio-economic interactions, the greatest challenge that many countries should be worried about are the global epidemic of misinformation that continues to take centre stage on social media platforms and other outlets. Zarocostas (2020) adds that despite the rapid response to the COVID-19 pandemic by the WHO, it has become a pre-ordained ritual that every outbreak precipitates information disorders, misinformation characterised by gossip and rumours.

This study explores the critical role that information professionals can play in the fight against misinformation surrounding the COVID-19 and beyond.

Objectives of the study

The main objective of the study was to explore the critical role of information professionals in combating misinformation surrounding COVID-19 while specific objectives were to:

- i. Establish existing misinformation on COVID-19
- ii. Ascertain the effects of COVID-19 misinformation

- iii. Examine the critical role of information professionals in combating misinformation surrounding COVID-19

Significance of the study

The study provides a basis for further discussion and or research on the role of information professionals vis a vis the provision of information in times of pandemics such as the COVID-19 outbreak. The paper is a modest contribution towards establishing information gaps on COVID-19 misinformation in light of the 2030 Sustainable Development Goal (SDG) # 3, which aims at ensuring healthy lives and promoting well-being for all, regardless of age.

LITERATURE REVIEW

Various studies have assessed the role of library and information professionals in combating COVID-19 pandemic and other global crises. For instance, Bengani (2021) noted that librarians had to contribute to the fight against the infodemic by raising awareness, providing credible information, collection development and research support, and through sharing best practice in conferences and other forums. This study affirms the role of libraries globally in the fight against fake news. The results of this study are an affirmation of the role played by libraries in the fight against fake news in general and specifically during times of crises.

Similarly, Chisita (2020) opines that the COVID-19 and infodemic outbreak should be seized by libraries as an opportunity to reassert their role and usefulness as the *deus ex machina* that will provide solutions to an impending catastrophe. Librarians from all sectors should mobilise their knowledge, skills and material resources to proffer practical solutions to overcome this crisis. The invaluable support that academic, medical and public librarians provide to learning, teaching and research should be enhanced to generate new knowledge to help citizens and policy-makers make informed decisions.

Naeem and Bhatti (2020) relied on myth busters, fact-checkers and credible sources relating to COVID-19 to conclude that fighting fake news is now the new front in the COVID-19 battle.

A study by Okike (2020) suggests that librarians should serve as catalysts for the effective dissemination of information to promote true knowledge. Librarians should disseminate information via existing and digital media platforms to educate users. For better dissemination of information, especially in a time of great need for accurate health-related information resources in an ever-increasing digital environment, libraries should establish working relationships with health agencies and communication organizations with the objective of cooperative developments of collections, referrals and information shared and learning for users and a new breed of reimagined librarians.

METHODOLOGY

The study adopted a quantitative research approach in which data sets were collected from Google scholar database. In total forty six (46) publications were extracted, out of which 36 were research publications while ten (10) were social media posts. Of the ten (10) social media posts, five were from Facebook while another five were tweets. These publications were firstly categorized according to themes identified under each study objective. The four main themes identified were: COVID-19 misinformation, the effects of COVID-19 misinformation and the role of information professionals. From the three main themes, twenty-eight variables were created for analysis. The Statistical Package for Social Sciences (SPSS) software was used for data analysis. Data was presented in tables, frequencies and percentages based on study objectives.

RESULTS AND DISCUSSION

The results are discussed according to the set research objectives and themes.

COVID-19 misinformation

Social media outlets, such as Facebook, Twitter, YouTube, etc., emerged as major information seeking and sharing channels during and after the pandemic. During health crises, access to reliable information sources and services becomes critical to enable the public to take part in healthcare and preventive decisions. However, the abundance of health information on social

media without any comprehensive checks makes it difficult for the public to identify accurate information, thus impeding effective public health response.

To assess the existing misinformation on the origins of Covid-19, three commonly debated variables were used; the famous Wuhan Chinese market, the laboratory and animals. The results of the data analysis show that out of the 48 information sources, 21 (44%) sources indicated that Covid-19 originated from Wuhan city market, as the whole world knows it. Meanwhile five (10.4%) suggested that Covid-19 is a fabricated virus engineered in the laboratory, 8 (16.7%) revealed that Covid-19 originated from animals and 14(29%) had no mention of Covid-19 origins. The aspect of the Covid virus originating from animals however is closely related to the Wuhan live-animal market origins speculated. The results are presented in Figure 1 below.

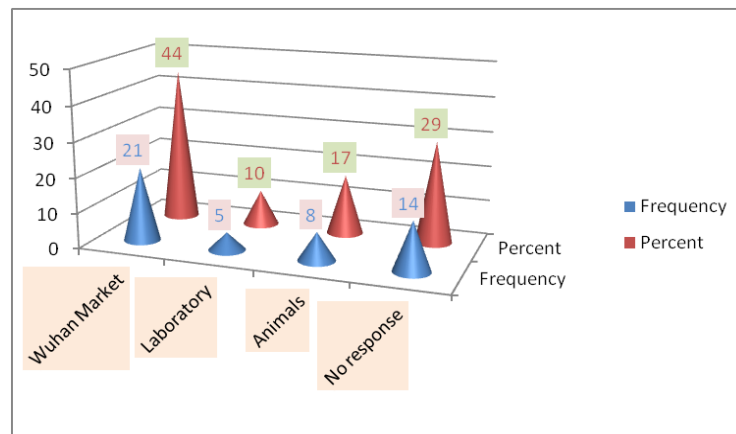


Figure 1: Myths and misinformation on the origins of Covid-19

These results prove the presence of confusing information or misinformation on the origins of Covid-19. The literature establishes that despite most research conducted in China at the start of the outbreak (WHO, 2020), the first coronavirus case was recorded in Wuhan seafood Market suspected to come from bats. Meanwhile, Wu et al (2020), Mackenzie, and Smith (2020) have argued that there were no bats on sale at the market prior to the outbreak. Mackenzie and Smith claim that based on existing evidence, COVID-19 may not have emerged from the market foods and hence the need to do a thorough research to determine its origin (Mackenzie & Smith 2020).

Mackenzie and Smith add that the 14 cases of the first 41 COVID-19 patients had no contact with the seafood market. Similarly, other sources 5(10.4%)

suggest that the Corona virus did not originate from Wuhan Market but was laboratory-originated. These scientists base their argument on the Corona virus's close resemblance to the viruses found among bats. It is believed that a bat-origin virus may have infected unidentified animal species sold in China's live -animal markets (Wu, et al, 2020; Mackenzie & Smith, 2020).

Without clarity about the origins of the virus, it is not surprising that many information sources have become rife with rumours, myths, falsehood and general misinformation on the pandemic. Consequently, one may argue that although the Wuhan market might not have been the site of origin or the only source of the outbreak, the virus is likely to have been amplified in the market (Mackenzie & Smith, 2020). One may further argue that even when the different sources hold different views, one aspect becomes clear that the effects of the virus were first recorded from the Wuhan market. Therefore, what is known is that the disease started in China in Wuhan city, with the market highly suspected to be the source.

Misinformation on the transmission of Covid-19

The results of Covid-19 transmission misinformation are presented in figure 2 below.

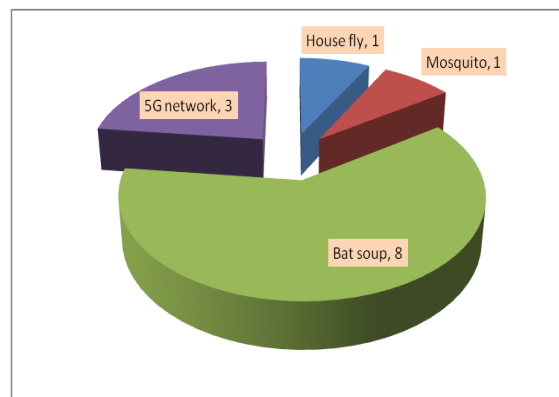


Figure 2: Misinformation on the coronavirus transmission

The analysis as revealed in figure 2 above shows four interesting beliefs on the Covid-19 transmission. That the virus is transmitted through houseflies, mosquitoes bites, and 5G network and through drinking bat soup. Other than these beliefs, mostly on social media, most researchers have maintained that coronavirus is mainly distributed among humans through contact (WHO,

2020; Wu et al, 2020 and Mackenzie & Smith, 2020). This is why Dotinga (2020) laments that the rapid, open and transparent sharing of data on Covid-19 outbreak is now being threatened by rumours and misinformation.

This calls for information professionals' involvement in ensuring that the accurate information is made available to the people to help them make informed decisions before, during and after a coronavirus infection, as well as for prevention purposes. Accurate information would also assist those with COVID-19 patients among them. In addition, the study sought to establish existing mis/information on the prevention and treatment of coronavirus. The results are presented in Table 1 below.

Table 1: Mis/information on Covid-19 prevention and cure

Variable	Yes	No indication	NA
Body steaming, sanitizing, hand washing	3 (9.7%)	22 (71.0%)	5 (16.1%)
Mouth and nose rinsing with salt water	3 (9.7%)	22 (71.0)	5 (16.1%)
Drinking bleach, m/ethanal	3 (9.7%)	22 (71.0)	5 (16.1%)
Chloroquine	4 (12.9%)	21 (67.7%)	5 (16.1%)

To analyse the existing information as well as misinformation on the prevention of COVID-19, four highly contentious methods were analysed as shown in Table 3 above. The results reveal that, out of 30 information sources examined, 3 (9.7%) sources indicated that COVID-19 can be prevented through body steaming, sanitizing and hand washing, 3 (9.7%) suggested mouth and nose rinsing with salt water, another 3(9.7%) indicated drinking bleach or ethanal and 4 (12.9%) suggested taking Chloroquine.

These results confirm the existence of misinformation on the prevention of COVID-19 pandemic. The literature establishes that, other than the first statement (body steaming, sanitizing and hand washing) the rest have not been confirmed preventive measures for COVID-19 prevention and or treatment. As such, different methods and medicines used for normal flu have been suggested for use in different parts of the world to alleviate the effects of the disease on individuals. For example, hydroxychloroquine, one of the drugs believed to treat COVID-19 by some scientists, WHO has argued that studies

have shown that hydroxychloroquine does not have clinical benefits in treating COVID-19 (WHO 2020). WHO (2020) asserts that chloroquine, a treatment for malaria, lupus erythematosus, and rheumatoid arthritis, has been under study as a possible treatment for COVID-19. Current data shows that this drug does not reduce deaths among hospitalised COVID-19 patients, nor help people with moderate infection. The aim of the existing COVID-19 drugs is to manage and reduce symptoms until one recovers.

With regard to drinking methanol and related substances, WHO (2020) reports that drinking methanol, ethanol or bleach does not prevent or cure COVID-19 and can be extremely dangerous. Methanol, ethanol and bleach are poisons. Drinking them can lead to disability and death. Methanol, ethanol and bleach are sometimes used in cleaning products or utensils to kill the virus on surfaces and not for drinking. They will not kill the virus in the body but will harm the internal organs.

Similarly, rinsing one's mouth and nose or mouth with saline does not prevent COVID-19, although it may reduce the effects of the virus if one is already infected, just like in a normal flu situation. According to the WHO, there is no evidence that regular rinsing the nose with saline has protected people from infection with the new coronavirus.

However, despite having neither a cure, effective treatment nor a reliable and effective vaccine, online information sources are peddling misinformation about cures and preventive measures about COVID-19 that are mostly not in line with WHO guidelines or any other public health expert's opinion. Other than the recommended masking, social distancing and as preventive measures, social media has other suggestions that are not only proven but also unhealthy for human consumption.

To this effect, Guner, Hasanoglu and Aktas (2020) state that preventive measures are the current strategies to limit the spread of cases such as early screening, diagnosis, isolation and treatment are necessary to prevent further spread.

The impact of COVID-19 misinformation

We are all being exposed to a huge amount of COVID-19 information on a daily basis, and not all of it is reliable. The study sought to assess the impact of misinformation on people's daily lives, focusing on four variables indicated in Table 2 below. The analysis show that out of 30 information sources, 14 (45.2%) sources indicated that COVID-19 is associated with anxiety, panic and confusion while 16 (54.8%) were silent on this aspect.

With regard to social withdrawal, vulnerability and death, the results show that 15 (48.4%) indicated that COVID-19 can cause social withdrawal, vulnerability and death while 13 (41.9%) did not and 2 (6.5%) were not applicable. As regards fear, anger, physical and mental exhaustion, the results show that eight (25.8%) of the sources indicated that the pandemic can cause fear, anger, physical and mental exhaustion while 12 (38.7%) did not.

Concerning stigma, racism, prejudice and xenophobia, the results show that 8 (25.8%) of the sources indicated that COVID-19 can contribute to the upsurge in stigmatisation, racism, stereotyping, prejudice and xenophobia while 16 (51.6%) did not support this. The results are presented in Table 2 below.

Table 2: The impact of COVID-19 pandemic misinformation

Variables	YES	NO	N/A
Anxiety, panic and confusion	14 (45.2%)	12 (38.7%)	4 (12.9%)
Social withdraw, vulnerability & death	15(48.4%)	13 (41.9%)	2 (6.5%)
Fear, anger, physical & mental exhaustion	8 (25.8%)	12 (38.7%)	10 (32.3%)
Stigma, racism, prejudice & xenophobia	8 (25.8%)	16 (51.6%)	6 (19.4%)

From the results in Table 2 above, it is clear that COVID-19 pandemic misinformation can have far reaching consequences on people's lives if not properly handled. Consequently, WHO (2020) states that the COVID-19 pandemic has led to a dramatic loss of human life worldwide and presents an unprecedented challenge to public health, food systems and the world of work. These situations can be amplified by lack or confusing information on the management of the pandemic.

The literature further establishes that the misinformation accompanying the coronavirus pandemic has caused hundreds of fatalities. For instance, Love, Blumenberg and Horowitz (2020) reported that in Iran, a rumor that alcohol kills coronavirus led many Iranians to drink counterfeit alcohol containing toxic methanol. This led to the death of over 300 people, hospitalization of over 1000 people, while many were feared to experience permanent vision loss. Despite managing the actual COVID-19 cases, the Iranian healthcare system was faced with the additional challenge of caring for patients with methanol poisoning during the height of its COVID-19 crisis (Love, Blumenberg & Horowitz, 2020). This is how devastating misinformation can be if not curbed early enough.

The findings of this study corroborate those of Scheufele and Krause (2019) who found that the spread of false information in the context of health could have severe consequences for public health. Aguilera (2020) add that misinformation does not only favour the increase of racist attitudes and behaviours but also puts at great risk populations' health and the ability of governments to effectively implement prevention measures.

In this context, misinformation can lead individuals and institutions to make wrong choices against their own best interests or against society's needs (Merino, 2014 in Pulido et al., 2020).

Ultimately, these study results prove that COVID-19 misinformation is hazardous to humanity, hence the need to curb it. The indirect and direct impacts, such as occurrences of 5G towers being burned down due to conspiracy theories linking them to Coronavirus make it critical to address the problem of misinformation (Sharma, 2020). This is where the services of information professionals should be highly felt and appreciated by the community worldwide.

Role of information professionals

Two variables were used to assess the role of information professionals in the wake of the COVID-19 pandemic misinformation, namely: (1) information packaging and repackaging; and (2) public health awareness, sensitisation and education. Table 3 below has the details.

Table 3: The role of information professionals

Variables	YES	NO	N/A
Information packaging & repackaging	18 (58.1%)	9 (29.0%)	3 (9.7%)
Public health awareness campaigns	7 (22.6%)	20 (64.5%)	3 (9.7%)

The results of the data analysis in Table 3 show that out of the 30 information sources on information packaging and repackaging, 18(58.1%) articles reported the use of this strategy. This suggests high use of information packaging and repackaging in combating COVID-19 given that articles 9(29.0 %) did not report packaging and repackaging information as a strategy, which can be used by information professionals. In support of this finding, Chisita, (2020) revealed that information packaging and repackaging is an important information mediation and consolidation strategy.

In addition, the fact that 3(9.7%) of the articles did not report any strategy that information professionals can use to combat COVID-19 misinformation suggests a lack of knowledge or development of strategies by information professionals to combat misinformation. This must be a wake-up call to information professionals to display their services in dealing with misinformation around COVID-19.

With regard to public health awareness, sensitisation and education as a strategy for combating COVID-19 misinformation, findings indicate that only 7(22.6%) of the articles reported this strategy. The low use of this strategy is against Ali and Gatits' (2020) advice that promotion of public health awareness is one of the roles that information professionals play as a preventive measure for pandemics. This role may come natural to most information professionals but the few reports on the use of this strategy suggest the need for more emphasis of this strategy given that a significant amount 18(37.5%) of articles analysed did not report the use of the strategy. In addition, the majority 21(43.8) of the articles did not report any strategy that

can be used by information professionals to combat COVID-19 misinformation on social media, pointing to the need for the development of more effective strategies.

Furthermore, 29(60.4%) of the articles analysed reported that information professionals targeted the public, a strategy which seems to be widely used by information professionals. This could be explained by the fact that this strategy falls within the traditional role of providing information to the public that information professionals play. Meanwhile, the majority 26(54.2%) of articles reported that information professionals used support for medical staff, patients and researchers through provision of relevant, accurate and timely information as a strategy. This comes naturally for librarians because their role has always been supportive in terms of information provision and sourcing. Thus, it is not surprising that few articles 8(16.7%) reported the use of this strategy by information professionals while few articles 14(29.2) did not report this strategy or any other strategy for that matter.

However, certain strategies reported by Ong'ong, (2020), of discovering information as fake on social media and advocating for social media laws against misinformation were not mentioned in the 30 articles that were analysed. This is despite most platforms advocating for reporting pages with fake information. These pages can be flagged as having fake information or they can be deleted for posting fake news. This lack of knowledge of other strategies by researchers suggests the need for information professionals and the researchers themselves to fully understand the strategies for combating misinformation about COVID-19.

Thus, Information Professionals can contribute meaningfully to the fight against COVID-19 misinformation by strengthening their capacity to disseminate information to enable citizens to take precautionary measures against COVID-19. This is because they have the knowledge, skills and experience to play this important role in the fight against COVID-19 pandemic through information literacy programmes on evaluating facts and checking the authenticity of information.

CONCLUSION AND RECOMMENDATIONS

The aim of this study was to explore the role of IPs in combating COVID-19. IPs have the knowledge and skills to provide guidance to the public on how to find credible and reliable information. Information Professionals should share resources and collaborate to help people become more critical of what is being presented to them as facts through social media and other outlets. Using the many tools at their disposal, the goal of Information Professionals should be to enable the public to distinguish between facts and fake information.

Based on the foregoing, the study recommends that IPs should adopt and enhance the use of digital platforms to provide online health information and services to the public. They should also learn to evaluate the authenticity and reliability of certain sources to differentiate correct information from fake news.

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