Summer 7-1-2021

Roles of Librarians in Combating Misinformation on Corona Virus Disease (COVID-19)

Grace D. PELEMO Mrs.
Sola Akinrinade University Library, Osun State University, Osogbo, gpelemo@gmail.com

Millie HORSFALL PhD
University of Port Harcourt, Rivers State, Nigeria, millie.horsfall@uniport.edu.ng

Onyinye Alexander OSEDO
Michael Okpara University Of Agriculture, Umudike, Abia State, osedo.onyinye@mouau.edu.ng

Roles of Librarians in Combating Misinformation on Corona Virus Disease (COVID-19)

Grace D. PELEMO
Sola Akinrinade University Library
Osun State University, Osogbo
gpelemo@gmail.com
+234-8034719512

Millie Nne HORSFALL, Ph. D, CLN, FCAI
University of Port Harcourt,
Rivers State, Nigeria
millie.horsfall@uniport.edu.ng
+234-8035056502

&

Onyinye Alexander OSEDO*
University Library, Michael Okpara University of Agriculture, Umudike
osedo.onyinye@mouau.edu.ng, onyialex@gmail.com
+234-08063944172
***Corresponding Author**

Abstract
The outbreak of the Corona Virus Disease (COVID-19) in Wuhan, China and the attendant explosion of "fake news" brings to the fore the need for Librarians and Libraries as well as other information providers to offer access to dependable information resources for the consumption of their patrons and users. Giving access to reliable sources of information and resources with minimal barriers comprises cooperation among Librarians and Libraries. This article surveyed the roles of Librarians and Libraries in response to the problems of fake news and misinformation arising from the outbreak of COVID-19 focusing on how librarians and other information professionals in Nigeria have articulated the difficulties and the approaches put in place for combating misinformation. A descriptive research design was adopted for the study, and twenty-four (24) Federal Universities were randomly selected across the six (6) geopolitical zones of the country. Data were analysed using simple descriptive statistics, and presented in tables and graphs. The study showed that Librarians should conduct a background search on sources of information to determine their authenticity and reliability before making them available to the clients.

Keywords: Misinformation, Disinformation, Corona Virus Disease (COVID-19). Librarians, Libraries.

Introduction

In the 21st century, effective management and control of the spread of any epidemic depend greatly on the availability of timely, accurate and reliable information for use by both health practitioners and individuals in society. This is especially so because, during an outbreak of epidemics, people look out for accurate information that will enable them to stay safe and be protected from the infection. Such information could range from the causes of disease, modes of transmission, preventive methods, as well as curative measures for the infected people.

Misinformation on Corona Virus Disease codenamed COVID-19 by the World Health Organisation (WHO) may be dangerous to the general public as it can cause more pandemic due to the speed of information dissemination. It is a very destructive phenomenon that is found in the society we live in. It is found in organizations; workplaces, families, religious entities, associations, etc. Misinformation on COVID-19 breeds fears and panic which in turn leads to wrong actions being taken thus exacerbating the spread of the virus.

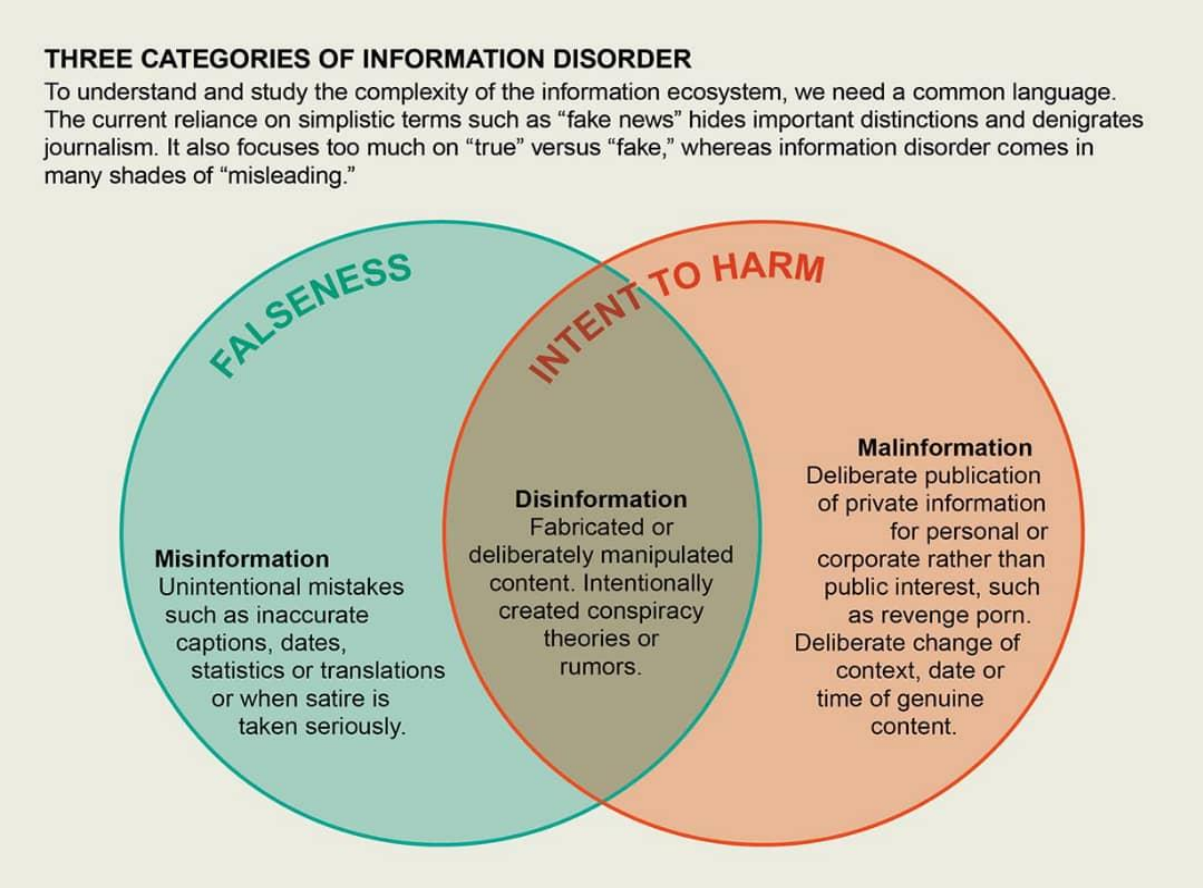
Van der Meer (2018) stressed that information has the potentials to shape society's understanding and interpretation of a given health situation, which can either make or mar positive response efforts at containment. Also, Liu and Kim (2011) posited that any misunderstanding arising from incorrect communication (misinformation) on the pandemic, often results in unnecessary confusion that ends up worsening the problem than solve it. In other words, misinformation undermines government, non-governmental organisations and even individuals' reasonable efforts in the fight against any pandemic by wittingly triggering avoidable doubts, fear and tension among the populace.

Tan, Lee and Chae (2015) defined misinformation as any information excluding rumours, contradictory or contested information, exaggeration, or preliminary health findings, which is explicitly untrue and attribute and generally considered to be so, by expert opinions. Similarly, Southwell et al., (2018) described misinformation as any information that is deliberately created, carefully promoted and accidentally or intentionally shared to promote falsehood. This means that any information which is intentionally or unintentionally created and shared to mislead or misinform people about a given situation is misinformation. The concept is said to have originated from the field of Psychology but has, in recent times, gained widespread attention and become a dominant theme among scholars in different disciplines including political

communication, health communication and cognitive psychology (Waisbord, 2015). Oftentimes, the term is used synonymously with fake news and false information.

Misinformation falls under the category of information disorder which has three arms namely: misinformation: fake information shared not to cause harm; disinformation: fake information shared to cause harm; and malinformation: correct information deliberately shared to cause harm (Amusan, 2020). This can be seen in Figure 1.

Figure 1: Categorization of Information Disorder



Source: Wardle (2019)

People create fake information/news around people and within themselves. They however depend on people to share it. One of the major sources of misinformation in contemporary society is social media which allow people to share information without proper verification. Specifically, Mutsvairo and Bebawi (2019) observed that the main sources by which misinformation spread faster include but not limited to Social Media such as Facebook, WhatsApp, Instant Messaging, etc., in today's information-rich society.

Despite this, it should be noted that misinformation is not the same as a misconception. While misinformation represents false information itself; misconception means wrong beliefs that people have as a result of misinformation that are not evidence-based (Nyhan and Reifler, 2010; Southwell et al., 2018). Extant literature reveals that when people are constantly exposed to fake information, they may form perceptions that differ considerably from the reality on the ground, as well as the opinion they would have had if they were correctly informed (Bode and Vraga, 2015).

COVID-19 as defined by WHO is a current global pandemic, whose outbreak was traced to Wuhan, South China Seafood market in Wuhan, Hubei Province, China, in November 2019. Though it started in the small cluster area of China, it later spread quickly across different continents of the world (including Africa) leading to its declaration by the WHO as a public health emergency of global concern. Currently, both confirmed active cases of Covid-19 and the number of deaths across nations are on a daily increase. The Wuhan Municipal Health and Health Commission (WMHC, 2020) identifies some of the common symptoms of Covid-19 to include pneumonia, fever, breathing difficulty and lung infection.

Since its outbreak, a lot of misinformation, disinformation and fake news replete with myths and fallacies have flooded both the traditional and new media, even while it was yet unclear what the specific cause(s) of the novel virus disease was. Prominent among such misinformation was that the virus does not and cannot survive in the hot weather; that taking a high dose of chloroquine medication can protect against its infection; and that consuming large quantities of ginger and garlic can prevent the virus (WHO, 2020). Other misinformation is that Covid-19 is a bio-weapon allegedly created by China, ostensibly to decimate the United States and assume the first position as a world power; that Covid-19 is God's punishment for the sins of the world; that it was created as a population control mechanism; and that it was caused by the fifth generation (5G) network, among others. This situation of an excessive amount of misinformation about a problem that makes it extremely difficult to identify a solution is described by the World Health Organisation (WHO, 2020) as infodemic.

Also, the United Nations Secretary-General, Antonio Guterres, categorically declared that "though our common enemy is Covid-19; our enemy also is the infodemic of misinformation". The organisation, therefore, warns that misinformation during a health emergency such as this,

can hamper effective health responses and create an atmosphere of confusion and distrust among people. Misinformation is making it difficult for the voices of healthcare organisations to be heard, the consequences of which may only become apparent as the virus accelerates globally.

Similarly, the United Nations Children's Fund (UNICEF) observes that a lot of myths and misinformation are regularly shared online about the virus and how to guard against it, most of which are neither useful nor reliable. It noted that though it is true that some useful tips have been recommended as preventive measures against the spread of the disease, the report purportedly credited to UNICEF that avoiding ice cream and other cold foods can prevent the spread of the disease, is completely fake and one out of many misinformation already in the public domain (UNICEF, 2020). It further stressed that such misinformation in times of health crises can spread paranoia, fear, anxiety and stigmatization which can also result in people being left unprotected against the virus or become more vulnerable to the virus. It, therefore, advised the public to regularly seek information from trusted sources and institutions such as UNICEF, WHO, government health officials and healthcare professionals.

Misinformation is making it difficult for the voices of healthcare organisations to be heard, and the consequences of this misinformation have become apparent as the virus spreads globally. Misinformation on treatments ranges from chloroquine administration, high-dose of Vitamin C, boiled garlic and sesame oil massages through to cocaine and the consumption of industrial-strength cleaning products. These are extremely dangerous, portends a threat as people will now rely solely on them for protection or give priory to these dangerous concoctions and products over evidence-based guidelines. The sheer volume of these claims is proving a significant problem for health and allied organisations such as the WHO, and the government, to overcome. As cases increase worldwide, rates of transmission of the virus could significantly be affected.

Misinformation travels faster, deeper and more broadly through social media networks compared to accurate information. It has also been shown that individuals are more likely to believe false information after repeated exposure. Thus, in the face of overwhelming amounts of information, people rely on information that they are familiar with - in this context, misinformation. One fundamental characteristic of misinformation that has been seen during this COVID-19 outbreak is the speed with which misinformation change tack. Videos, pictures, interviews and articles, are all being used to substantiate false claims.

Therefore, it can be sufficiently stated that the major challenge of the COVID-19 era is hinged on identifying true information from false or fake as it is characterized by information overload, infobesity or infodemic. Infodemic is gotten from information pandemic, meaning that there is too much information on a situation or topic like 'COVID-19' that is been dealt with as it makes it more difficult to know what one should believe. It is also called infodemic because it is more dangerous than the virus itself.

Consequently, the library as information institutions whose responsibilities is to select, acquire, process and disseminate reliable information resources and services to the people have become indispensable partners that could play a leading role in the fight against COVID-19. Irrespective of the type of library (public, academic, research or national library), librarians could collaborate with relevant health research institutes, government health institutions and officials, as well as trusted healthcare professionals, to collect verified information on COVID-19 and create awareness within its area of existence. Typically, this falls within the Current Awareness Services (CAS) functions of libraries that can be effectively carried out using technology-mediated platforms such as social media or electronic mailing. In Nigeria, such institutions working to combat COVID-19 include the National Centre for Diseases Control (NCDC); Federal and State Ministries of Health; National and Regional offices of the World Health Organisation (WHO) and United Nations Children's Fund (UNICEF); Ministries of Information and Humanitarian Affairs, Disaster Management and Social Development; National Orientation Agency, Volunteer Groups, among others.

This, therefore, presents an opportunity for librarians to further demonstrate their relevance in nation-building by actively participating in the fight against a national health emergency. It will further restore the confidence of both government and the general public in librarians who have otherwise erroneously believed to be mere bookkeepers in a building called the library. Arguably, the future of libraries especially in the face of daring competition from the Internet and Information Technology (IT) professionals depends on how best it can prove its relevance by contributing its quota in solving societal problems. Suffice to say that the involvement of librarians in combating COVID-19 in Nigeria is to a large extent, a marketing strategy that has the potentials to create public awareness of library resources and services and ultimately increase its patronage, as well as national and global visibility.

The Federal Universities in Nigeria, considered to be among the prestigious in the country, were established by Federal Government through Acts of Law at different times apart from the University of Ibadan which was established in 1948 and constitutes part of the public university system in Nigeria. There are Forty-Three (43) Federal Universities presently and are all under the control of the Federal Ministry of Education. These universities have the President of the country as its Visitor with different Governing Councils. Typically, these universities receive more funds than State Governments owned Universities.

Statement of the Problem

The COVID-19 outbreak has been associated with a wide and evolving range of misinformative content. In part, this is due to the different motivations of those who are creating and disseminating it; each form poses a distinct challenge. This misinformation is making it difficult for the voices of healthcare organisations to be heard, the consequences of which have become apparent as the virus rapidly spread outside of China within a short period. What roles can Librarians play to address information overload thus engaging in the fight against COVID-19?

Purpose and Significance of the Study

The purpose of this study is to expose and espouse the sources of information on COVID-19 to library clients, the level of accessibility to identified sources of information services, and measures to combat misinformation on COVID-19 by Librarians.

The study would be of immense benefit to Library patrons in particular and the general public at large, who seek authentic, reliable and verifiable information on COVID-19. It would also provide empirical evidence on the role of librarians in combating misinformation on COVID-19. Equally, the outcome of this research will positively influence how Librarians and Libraries tackle misinformation POST COVID-19 going forward.

Literature Review

Sources of information on COVID-19 to the public

Coronavirus disease (COVID-19) is an infectious disease caused by a new virus. The disease causes respiratory illness (like the flu) with symptoms such as cough, fever and in more severe cases, difficulty in breathing.

Kunst (2020) published sources of information conducted by Statista about the COVID-19/ coronavirus pandemic 2020 to include; TV, News websites, social media, search engines (e.g. Google), Friends and acquaintances, scientific/medical websites, Newspapers and magazines (print), Radio shows, Online forums, Scientific/ medical journals, Apps, Podcasts, Blogs and others. The researcher affirms that the statistics are based on the daily COVID-19/coronavirus pandemic survey.

James (2020) suggests that there is a need to create awareness for both librarians and clienteles on the adverse impact or effects of misinformation. This according to him can be achieved by sending messages through an offline and online network for librarians. Librarians need to be a source in their source of information dissemination

Level of accessibility to information services

James (2020) argues that most times, librarians' level of accessibility to information services are contradictory such that librarians who are supposed to provide readers with valid information are even the sources of misinformation. Anunobi (2020) suggests that librarians dig into the literature, evaluate the source and counter if wrong with the peer review source. Also, that the link to the right information source is possibly provided, confirmed and re-evaluate source before reposting. It is very imperative to 'Think Before You Send' any information.

Amusan, (2020) is of the view that identifying fake information is very easy and simple provided one is equipped with the necessary skills. He further stressed that in some cases, they are packaged in such a way that it may require a further background check to identify such. Such background checks among others include treating every online content with suspicion and being familiar with sources that are authoritative as it relates to the information sought.

Measures librarians can take to combat misinformation on COVID-19

Measures librarians can take to combat misinformation on COVID-19 can never be overemphasized. Librarians need to take pro-active measures to combat misinformation. Information needs to be verified and re-verified before posting, sharing or using them. Background checks and balances need to be carried out by librarians before they disseminate information by handling every information with care. Librarians need not only select, process, and store information for retrieval/dissemination but need to become researchers in the process (James, 2020).

Fake or false news or misinformation spread could be spotted through images (Google Image). Cases, where pictures are posted or forwarded, could be verified by what is called ***Reverse Image Search (RIS).*** This is a process of searching for images online, especially through Google to identify the original site and date when such an image first surfaced online. Google will bring good result about it. As librarians and information professionals, it is imperative that they need to be equipped with these skills to be able to function effectively and put orderliness in the chaotic and polluted information environment (Amusan, 2020).

There is a need for librarians to check any information, evaluate it before disseminating/ forwarding or posting it. As librarians, ask yourself if it is necessary to post what you want to post on a platform, is it appropriate? They need to discipline themselves by not misinforming society. When all these things are put in place, misinformation or infodemic will be brought to a lockdown or standstill. Once the information is not correct or accurate and you do not post it, it stops naturally (Oyelude, 2020).

Therefore, librarians have to handle information with carefulness. Information professionals/librarians are to inform and not misinform the populace. It is however advised that we check and re-check stories before sharing (COVID-19 Fact check, 2020).

Methodology

~~The~~ ~~d~~ Descriptive design was adopted for the research questions. The purposive sampling technique was also adopted in selecting respondents in Nigerian Federal Universities libraries that have Internet accessibility during the COVID-19 pandemic. A questionnaire distributed online was used for data collection. The population size consists of One Hundred (100)

practising librarians in the Federal Universities in Nigeria randomly selected from the Six (6) geopolitical zones of the country made up of Twenty-Four (24) Federal Universities out of the existing Forty-Three (43) comprising Four (4) from each zone. Data were analysed using simple descriptive statistics, and presented in tables and graphs.

Results

Nigeria has 36 states and one Federal Capital Territory (FCT) – Abuja. This is further divided into Six Geopolitical zones of North-Central, North-East, North-West, South-East, South-South, and South-West. The North-West Zone comprising Jigawa, Kaduna, Kano, Katsina, Kebbi, Sokoto and Zamfara has the highest number of Federal universities. Four Federal Universities from each of the Six Geopolitical Zones were randomly selected for the study. A breakdown of Federal Universities across the six geological zones is presented in Table 1.

Table 1: Spread of Federal Universities across Six Geopolitical Zones

S/No.	Geographical Zone	Universities	Selected Libraries
1.	North-Central	7	4
2.	North-East	7	4
3.	North-West	10	4
4.	South-East	5	4
5.	South-South	7	4
6.	South-West	7	4
	Total	**43**	**24**

Source: Field Survey, 2020

Of the One Hundred (100) expected responses only Sixty-Seven (67) was received giving a 67% response rate. Six (6) (8.955%) of the 67% responses, skipped their institutional affiliations.

The result equally showed that 36 (53.73%) respondents were female while male respondents were 31 representing 46.27% indicating a gender disparity of 7.46% in favour of the female gender.

Table 2 and Graph 1 displays the response by the Age of the Respondents

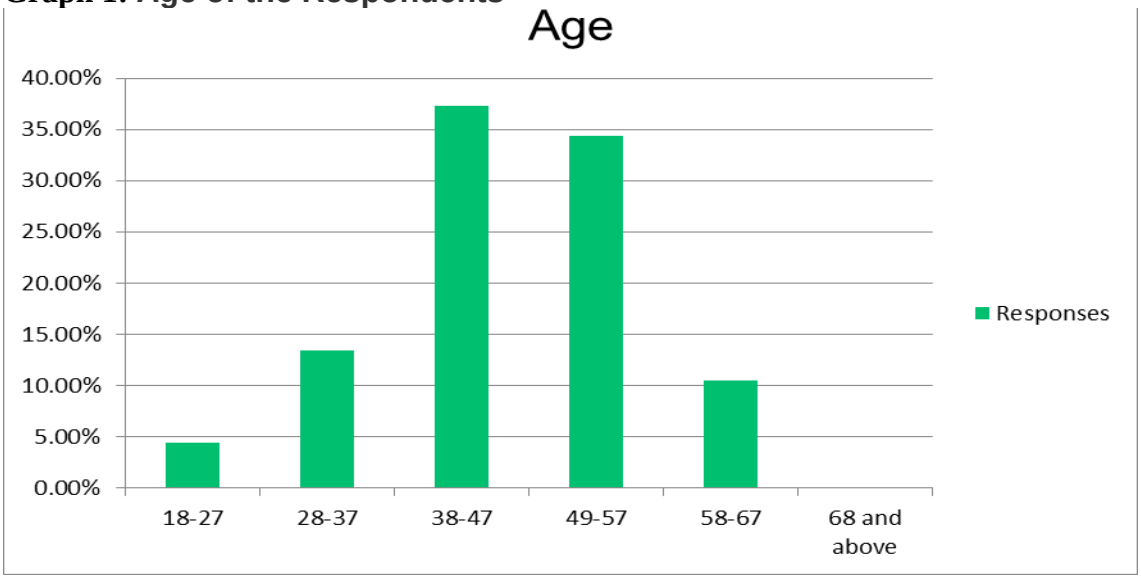
Table 2 and Graph 1: Response by the Age of the Respondents

Table 3: Age of the Respondents

Answer Choices	Responses	
18-27	4.48%	3
28-37	13.43%	9
38-47	37.31%	25
49-57	34.33%	23
58-67	10.45%	7
68 and above	0.00%	0
	Answered	**67**

Source: Field Survey, 2020

Graph 1: Age of the Respondents



Source: Field Survey, 2020

As shown from both the graph and the table the age range of 38--57 responded more with 71.64% while the rest age ranges have 28.68% indicating that the age range of 38—57 is the most active of all the age ranges.

The next table and graph (Table 3 and Graph 2 respectively) show the educational qualification of the Respondents

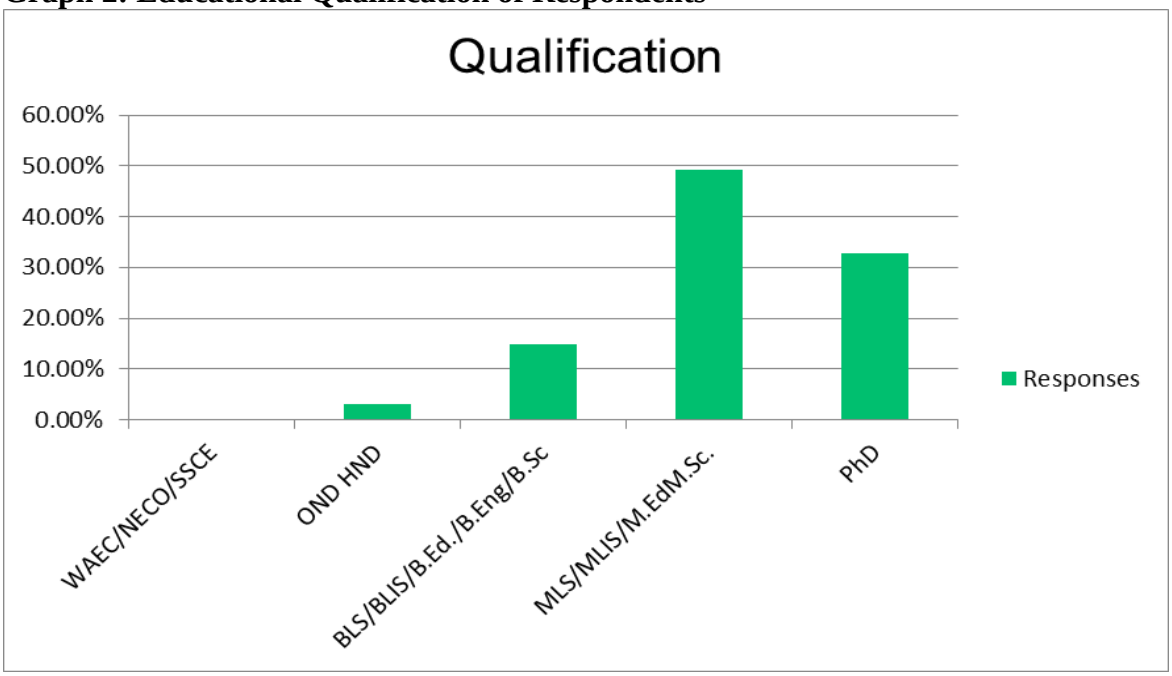
Table 3 and Graph 2: Educational Qualification of Respondents

Table 3: Educational Qualification of Respondents

Answer Choices	Responses	
WAEC/NECO/SSCE	0.00%	0
OND HND	2.99%	2
BLS/BLIS/B.Ed./B.Eng./B.Sc.	14.93%	10
MLS/MLIS/M.Ed. Sc.	49.25%	33
PhD	32.84%	22
	Answered	**67**

Source: Field Survey, 2020

Graph 2: Educational Qualification of Respondents



Source: Field Survey, 2020

The qualifications of the Respondents showed that those with second degrees (MLS/MLIS/M.Ed/M.Sc) are about 50% (49.25%) while the PhD holders are 32.84% leaving OND/HND along with BLS/BLIS/B.Ed/B.Sc with the remaining 17.92%

In Table 4 and Graph 3, the years of experience of the Respondents are displayed

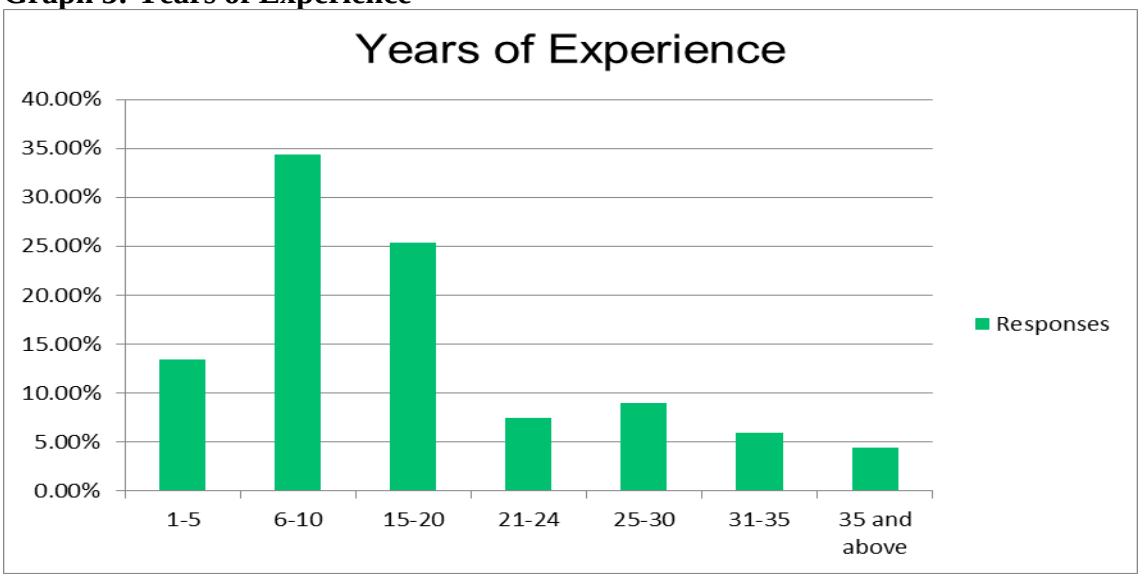
Table 4 and Graph 3: Respondents Years of Experience

Table 4: Years of Experience

Answer Choices	Responses	
1-5	13.43%	9
6-10	34.33%	23
15-20	25.37%	17
21-24	7.46%	5
25-30	8.96%	6
31-35	5.97%	4
35 and above	4.48%	3
	Answered	**67**

Source: Field Survey, 2020

Graph 3: Years of Experience



Source: Field Survey, 2020

Considering years of experience, 59.7% (40) of the respondents have garnered between 6-20 years of experience indicating that the respondents have the requisite experience to address issues in the instrument.

In Table 5 and Graph 4, the Respondents gave the sources of information consulted by their Patron starting from the least consulted Source of Information to the most consulted

Table 5 and Graph 4: Sources of information consulted by Library Patron when seeking information on COVID-19

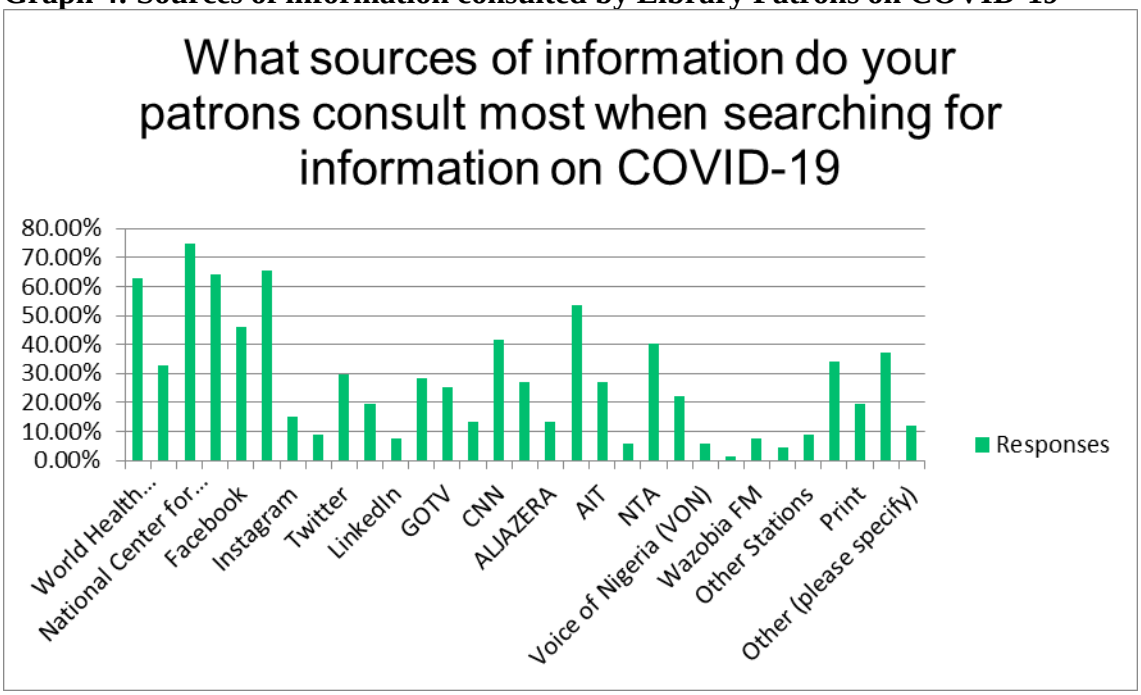
Table 5: What sources of information do your patrons consult most when searching for information on COVID-19

Answer Choices	Responses	
Bond FM	1.49%	1
Ray Power FM	4.48%	3
ARISE TV	5.97%	4
Voice of Nigeria (VON)	5.97%	4
LinkedIn	7.46%	5
Wazobia FM	7.46%	5
Telegram	8.96%	6
Other Stations	8.96%	6
STARTIMES	13.43%	9
ALJAZERA	13.43%	9
Instagram	14.93%	10
YouTube	19.40%	13
Print	19.40%	13
Radio Nigeria	22.39%	15
GOTV	25.37%	17
BBC	26.87%	18
AIT	26.87%	18
DSTV	28.36%	19
Twitter	29.85%	20
Federal Ministry of Health (FMoH)	32.84%	22
Online	34.33%	23
Educated and Literate Relatives (both within and outside the country)	37.31%	25
NTA	40.30%	27
CNN	41.79%	28
Facebook	46.27%	31
Channels TV	53.73%	36
World Health Organisation (WHO)	62.69%	42
Google	64.18%	43
WhatsApp	65.67%	44
National Centre for Disease Control (NCDC)	74.63%	50
Other (please specify)	11.94%	8
Gossip		
Radio Lagos		
All print and electronic media		
Community /traditional informants		
Not aware. Not interfacing with patrons		
Infectious Disease Hospital (IDH), Yaba		
Rumours and hearsay		

Answered 67

Source: Field Survey, 2020

Graph 4: Sources of information consulted by Library Patrons on COVID-19



Source: Field Survey, 2020

Graph 4 above shows the sources of information consulted by Library patrons, and the graph reveals that National Centre for Disease Control (NCDC) (74.63%), WhatsApp (65.67%), Google (64.18%), World Health Organization (62.69%) and Channels TV (53.73%) were mostly consulted while in the Library. On the other hand, Facebook (46.27%), CNN (41.79%), NTA (40.30%) are moderately consulted while Educated and Literate Relatives (both within and outside the country) (37.31%) Online (34.33%), consulted Federal Ministry of Health (32.84%) among others were poorly consulted.

The level of accessibility to the identified sources of information and in what language they are accessed is depicted in Table 6 and Graph 5 ranging from the least accessible to the most accessible with exception of Others (Please specify) with 7.81% which has to go down due to other subheadings under it.

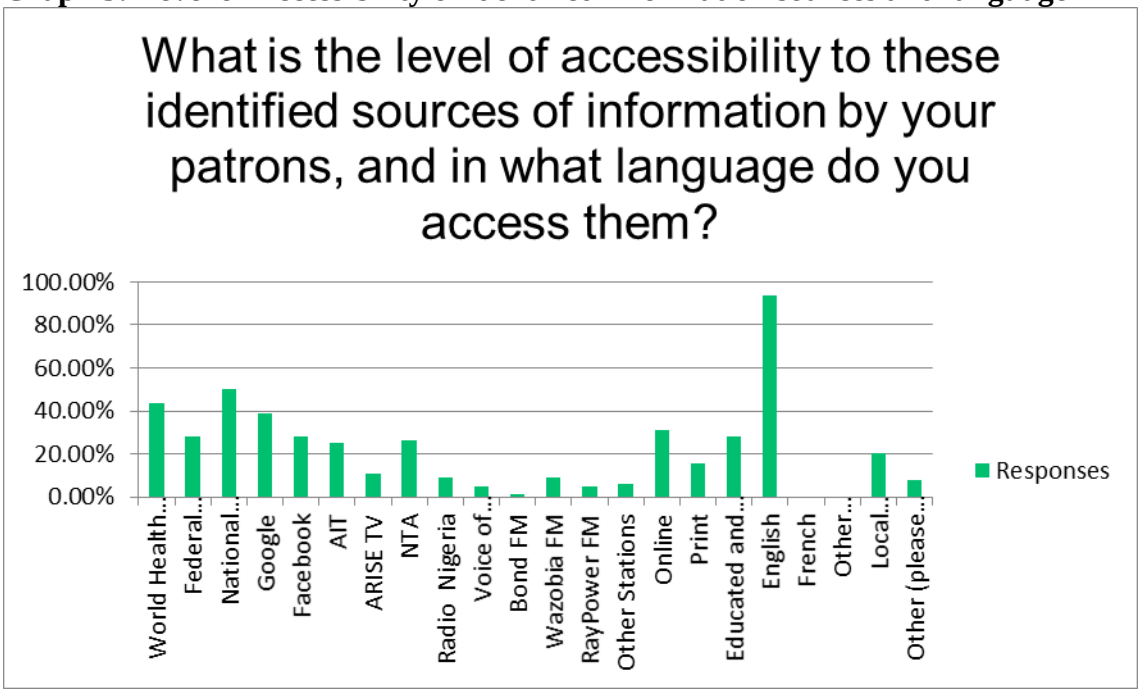
Table 6 and Graph 5: Level of Accessibility to the identified Information Sources and Language they are accessed is depicted in ranging from the least accessible to the most accessible

Table 7: What is the level of accessibility to these identified sources of information by your patrons, and in what language do you access them?

Answer Choices	Responses	
English	93.75%	60
National Centre for Disease Control (NCDC)	50.00%	32
World Health Organisation (WHO)	43.75%	28
Google	39.06%	25
Online	31.25%	20
Federal Ministry of Health (FMoH)	28.13%	18
Facebook	28.13%	18
Educated and Literate Relatives (both within and outside the country)	28.13%	18
NTA	26.56%	17
AIT	25.00%	16
Local languages and dialects	20.31%	13
Print	15.63%	10
ARISE TV	10.94%	7
Radio Nigeria	9.38%	6
Wazobia FM	9.38%	6
Other Stations	6.25%	4
Voice of Nigeria (VON)	4.69%	3
Ray Power FM	4.69%	3
Bond FM	1.56%	1
French	0.00%	0
Other European Languages	0.00%	0
Other (please specify)	7.81%	5
Most of our patrons are information literate and use the English language to access the resources.		
The challenged persons use braille and audio means		
Not applicable		
Hausa		
Gotv		
	Answered	**64**
	Skipped	**3**

Source: Field Survey, 2020

Graph 5: Level of Accessibility of identified information sources and language



Source: Field Survey, 2020

Graph 5 shows accessibility and language accessibility of sources of information. The Graph shows that NCDC (50%) was the most accessed source of information by the respondents. Others such as WHO (43.75%), Google (39.06%), Online (31.25%), etc, were less accessible. English language (93.75%) was mostly used in accessing the information sources, and Local languages and dialects recorded 20.31%.

Finally, Table 7 and Graph 6 shows the measures put in place by Respondent Librarians to curtail and combat misinformation relating to COVID-19.

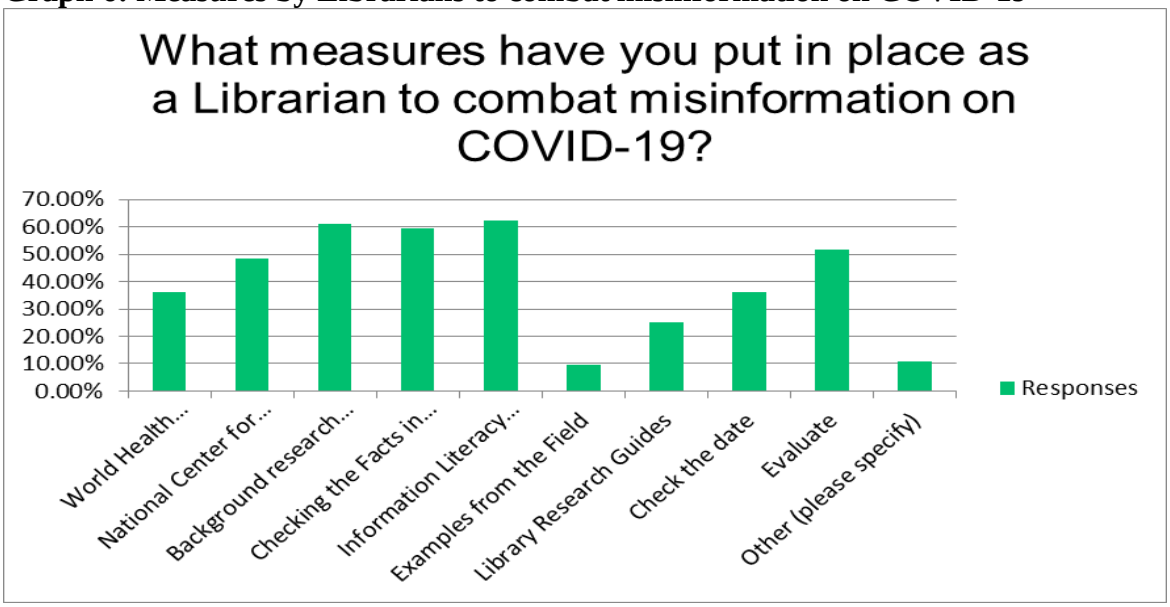
Table 7 and Graph 6: Measures put in place by Librarians to Combat Misinformation relating to COVID-19

Table 7: What measures have you put in place as a Librarian to combat misinformation on COVID-19?

Answer Choices	Responses	
Information Literacy Instruction on reading beyond the lines	62.50%	40
Background research to determine the source	60.94%	39
Checking the Facts concerning the Author(s)	59.38%	38
Evaluate	51.56%	33
National Centre for Disease Control (NCDC)	48.44%	31
World Health Organisation (WHO)	35.94%	23
Check the date	35.94%	23
Library Research Guides	25.00%	16
Examples from the Field	9.38%	6
Other (please specify)	10.94%	7
Help users with correct information resources		
Posting information on institutions' social media platforms		
We do not rely on the above sources only. Many of our patrons use researches on COVID-19 provided free and on a short term basis by some publishers like Springer Nature.		
Verifying whatever information seen or read		
Constant advocacy, sensitization, and online posts		
Kick against misinformation when posted by someone and give the right information		
Answered		**64**
Skipped		**3**

Source: Field Survey, 2020

Graph 6: Measures by Librarians to combat misinformation on COVID-19



Source: Field Survey, 2020

Graph 6 shows the measures taken by Respondent Librarians to combat misinformation. The result revealed that background research to determine sources of information (60.94%), checking facts concerning authors (59.38%) and evaluation (51.56%) were mostly taken as measures to combat misinformation. On the other hand, NCDC (48.44%), Library research guides (35.94%), check of the date such information was published (35.94%) and examples from the field (9.38%) and others (10.94%) were not mostly used as measures to combat misinformation.

Discussion

The study shows that Librarians play important roles in combating misinformation in the fight against any pandemic including COVID-19. Identified sources of information on COVID-19 for the library patrons include but not limited to National Centre for Disease Control (NCDC), WhatsApp groups, Google, World Health Organization, Channels TV, Facebook, CNN, NTA, Educated and Literate Relatives (both within and outside the country), Online, Federal Ministry of Health (FMoH) among others. This is in line with Kunst (2020) who revealed that sources of information about the COVID-19/coronavirus pandemic 2020 include; TV, News websites, social media, search engines (e.g. Google), Friends and acquaintances, scientific/medical websites, Newspapers and magazines (print), Radio shows, Online forums, Scientific/ medical journals, Apps, Podcasts, Blogs and others.

The study also revealed that the level of accessibility to services on COVID-19 and the language to access them. These levels of accessibility include: Ray Power FM, Radio Nigeria, WAZOBIA FM, ARISE TV, Print, Local languages and dialects, AIT, NTA, Federal Ministry of Health (FMoH), Facebook, Educated and Literate Relatives (both within and outside the country), Online, Google, World Health Organization (WHO), National Center for Disease Control (NCDC) among others and English Language, as well as local dialects, are the languages used in accessing this information. This is in line with the views of Anunobi (2020) and Amusan (2020) who believed that there is a need for a background check on the level of accessibility which includes being familiar with sources of information that are authoritative when seeking to access information.

Furthermore, the study identified measures that can be put in place by librarians to combat Misinformation on COVID-19. These measures include background research to determine the sources, checking the facts concerning the authors and evaluation, NCDC, Library research

guides, checking the date and examples from the field as measures to combat misinformation. This also agrees with the reviews of these authors as they revealed that background checks and evaluations need to be carried out by librarians (James, 2020); check the dates (Amusan, 2020) and appraise information (Oyelude, 2020) before disseminating, forwarding, posting or delivering to patrons.

Conclusion

Currently, misinformation is a vital problem; individuals have a habit of not disparagingly weigh the information they read, especially when making significant decisions concerning their lives and health. It can safely be concluded that the study has shown that Libraries and Librarians have important roles to play in combating misinformation associated with Corona Virus nicknamed COVID-19. These roles are in the areas of sieving available information and evaluating them for its authenticity before making them available to their patrons. Librarians and Libraries should increase access points to the identified sources of information. It is imperative to underline that internet users are accountable for the value of information obtained from websites (Cuan-Baltazar et al, 2020). However, the study revealed that Library patrons rely more on institutional sources such as NCDC and WHO as against the internet sources Google and Facebook). as such Librarians and Libraries should intensify effort in providing information through these institutions (NCDC and WHO). The misinformation effect can be overwhelming, so Librarians should filter the information being made available to their patrons. Cuan-Baltazar et al, (2020) stated that scientific information about COVID-19 flows freely in the networks like never before, but it must be accompanied by a proper interpretation by the media and internet users hence the need for Librarians and Libraries to bridge the gap.

Recommendations

To thwart the derisory replies and doubts from patrons, it is central that Libraries and Librarians develop a strategy to explain to their users how to authenticate the superiority of what they read, especially information concerning COVID-19.

Librarians and Libraries must carefully consider strategies to adopt to combat false or misleading health information especially as it relates to COVID-19. Incorrect health information can cause

momentous social harm by nourishing false ideas of disease. Equally, Librarians and Libraries must undertake a part in the fight with these optional actions;

- Do not share information if its reliability has not been established;
- Information should only be shared if its reliability has been established;
- Enhanced Current Awareness Services (CAS) and Selective Dissemination of Information (SDI) should be embarked upon.
- Device other approaches of information sharing among their patrons other than the traditional methods of CAS and SDI. Such approaches could be the use of bulletins and notice boards.
- Other approaches of information should be shared among their patrons other than the traditional methods of CAS and SDI. Such approaches could be used of bulletins and notice boards.

References

Amusan, B. B. (2020). Online lectures on how to identify fake News or Misinformation. Nigerian Library Association (Cat & Class WhatsApp Chat Group), 4th April. Nigeria

Anunobi, C. (2020). Misinformation on COVID-19. Google group 'AFLIA General Forum' group. https://groups.google.com/d/msgid/Aflia-forum/dd2efd53-11a8-4dc3-

Bode, L., & Vraga, E. K. (2015). In related news, that was wrong: The correction of misinformation through related stories functionality in social media. *Journal of Communication*, 65(4), 619–638.

Cuan-Baltazar, Jose Yunam; Muñoz-Perez, Maria José; Robledo-Vega, Carolina; Pérez-Zepeda, Maria Fernanda; & Soto-Vega; Elena. (*2020)* Misinformation of COVID-19 on the Internet: Infodemiology Study *JMIR Public Health Surveill; 6(2).*

James, B. (2020). Misinformation on COVID-19. Google group 'AFLIA General Forum' group. https://groups.google.com/d/msgid/Aflia-forum/dd2efd53-11a8-4dc3-

Kunst, A. (2020). Sources of information about the COVID-19/ coronavirus pandemic 2020 https://www.statista.com/

Lee, S. T. (2014). Predictors of H1N1 influenza pandemic news coverage: Explicating the relationship between framing and news release selection. *International Journal of Strategic Communication*, 8(4), 294–310.

Liu, B. F. & Kim, S. (2011). How organizations framed the 2009 H1N1 pandemic via social and traditional media: Implications for US health communicators. *Public Relations Review*, 37(3), 233–244

Mogaji, E. (2019). Types and Location of Nigerian Universities. *Research Agenda Working Papers*. Vol 2019 No 7, 92-103. https://www.researchgate.net/publication/335596480

Mutsvairo, B. & Bebawi, S. (2019). Journalism Educators, Regulatory Realities, and Pedagogical Predicaments of the 'Fake News' Era: A Comparative Perspective of the Middle East and Africa. *Journalism and Mass Communication Educator*, 74(2), 143-157.

National Universities Commission http://nuc.edu.ng

Nyhan, B., & Reifler, J. (2010). When corrections fail: The persistence of political misperceptions. *Political Behaviour*, 32(2), 303–330

Oyelude, A. A. (2020). Posting on WhatsApp group NLA/Cat & Class. Accessed 13/04/2020

Southwell, B. G., Thorson, E. A., & Sheble, L. (2018). Misinformation among mass audiences as a focus for inquiry. In B. G. Southwell, E. A. Thorson, and L. Sheble (Eds.), *Misinformation and mass audiences*. Austin: University of Texas Press.

Tan, A. S., Lee, C. J., & Chae, J. (2015). Exposure to health (mis) information: Lagged effects on young adults' health behaviours and potential pathways. *Journal of Communication*, 65(4), 674–698.

UNICEF (2020). Coronavirus disease (COVID-19): What parents should know. Retrieved from www.unicef.org/stories/novel-coronavirus-outbreak-what-parents-should-know

Van Der Meer, T. G. L. A. & Verhoeven, J. W. (2014). Emotional crisis communication. *Public Relations Review*, 40(3), 526–536.

Waisbord, S. (2015). My vision for the Journal of Communication. *Journal of Communication*, 65(4), 585–588.

Wardle, C. (2019). Misinformation Has Created a New World Disorder, *Retrieved on* 18th August, 2020 from https://www.scientificamerican.com/article/misinformation-has-created-a-new-world-disorder/

WHMC (2020). Wuhan Municipal Health and Health Commission's Briefing on the Current Pneumonia Epidemic Situation in our City. Retrieved from http://wjw.wuhan.gov.cn/front/web/showDetails/201923108989

WHO (2020). UN tackles 'infodemic' of misinformation and cybercrime in COVID-19 crisis. Retrieved from https://www.un.org/en/un-coronavirus-communications-team/un-tackling-%E2%80%98infodemic%E2%80%99-misinformation-and-cybercrime-covid-19 Friday, 17th April, 2020