
Interrogating the Role of Libraries in the Fight against COVID-19 Pandemic: The Nigerian Perspective

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ARTICLE INFO

Article history:

Received 30 April 2020

Revised 03 November 2020

Accepted 04 December 2020

Keywords:

Coronavirus,
Libraries,
Global Pandemic,
Role of Libraries,
COVID-19,
Library Services,
Nigeria

ABSTRACT

The study investigated the role of libraries in curtailing the spread of COVID-19 pandemic in Nigeria. Six research objectives were raised to guide the conduct of the study. The survey type of the descriptive research design was employed. The population of the study comprised of 139 selected librarians in Nigeria. The complete enumerative sampling technique was adopted to study the entire 139 librarians. The instrument for data collection was an online survey questionnaire designed by the researchers using SurveyMonkey and administered to the respondents via the Nigerian Library Association (NLA) WhatsApp group and the NLA Google group. The data collected were analyzed using descriptive statistics. The study revealed that among the services delivered by Nigerian libraries amidst the global pandemic are COVID-19 awareness and sensitization creation, provision of digital contents to patron, organizing online streaming programs and connecting patrons/citizens to accurate and reliable data on COVID-19 cases around the world. The study further revealed that these services are delivered frequently despite the low level of Nigerian libraries' preparedness for global pandemic. The study concluded that, Nigerian libraries, through their services, are potent weapon for promoting positive change, development, orientation, and re-orientation in the society. By creating COVID-19 awareness/sensitization (especially in rural areas), libraries are able to contribute significantly to the fight against the pandemic.

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International Journal of Knowledge Content Development & Technology, 10(4): 47-64, 2020.
<http://dx.doi.org/10.5865/IJKCT.2020.10.4.047>
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1. Introduction

According to the World Health Organization (2020), coronaviruses are a large family of viruses that may cause illness in animals or humans. In humans, for example, several coronaviruses are known to cause respiratory infections ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The most recently discovered coronavirus is the novel coronavirus, otherwise called COVID-19. This new virus and disease were unknown before its outbreak in Wuhan, China, in December 2019, and is different from other coronaviruses that usually circulate among humans and cause mild illness such as the common cold (Centers for Disease Control and Prevention, 2020).

The complete clinical picture of COVID-19 is not known. The reported illnesses range from mild (no reported symptoms) to severe illnesses and sometimes, including death. A report from China shows that 16% of cases have developed severe illness (Guan et al., 2020). Older adults and all age groups with serious underlying health problems, such as heart disease, lung disease, and diabetes, appear to be at higher risk for severe conditions. The first case of affected COVID-19 was reported in Wuhan, China, in late December 2019 (Huang et al., 2020). Since then, the virus has infected over twenty million people from over 110 countries and territories/areas with over 800,000 (World Health Organization, 2020). As of September 6th, 2020, there are 55,005 confirmed cases, 43,013 discharged cases, and 1,057 deaths in Nigeria (National Centre for Disease Control (NCDC), 2020).

To curtail the spread of the virus, libraries as service-based organizations can contribute to the fight against COVID-19 in Nigeria. Despite the near total lockdown of the entire country, libraries could render services remotely during the pandemic and some of the services could include expand remote services such as virtual reference and promoting e-books, databases, and e-resources; promote how to access your library's e-resources 24/7; provide references services via email, phone, and chat; use social graphics for online library services; keep the library WIFI on during closure; create a Basic Needs Information local resource guide for your community; encourage patrons to exercise; prepare to serve as recovery centers for community members, help individual with employment search and skills development, and to connect constituents with government aid and services; provide information for patrons about COVID-19, financial assistance, and mental health; consider waiving fines so patrons can access e-resources regardless of account status; provide library card sign-ups for access to remote resources; expand your Reader's Advisory services online; share your favorite books, music, movies with patrons on social media; publish a blog with book reviews and recommendations; have staff develop reading, viewing, and listening lists; offer an online storytime or digital book club.

Libraries, like many service-based organizations and social institutions, are switching to online mode for services delivery due to the closure of libraries. Libraries have a proud history of stepping in to fill the gaps in the social safety net, and the impulse to do so in this instance is strong. Many library workers, from directors to frontline staff, are rightly questioning whether it is reasonable to endanger the lives of staff to do so. But the tough calculus of staff needs versus patron needs doesn't apply this time, because, as Brooklyn librarian Katya Schapiro said, "The same populations

that are hurt by us closing are at greatest risk from us remaining open” (Schwartz, 2020).

In essence, just because the library is closed does not mean libraries should stop working. Rather, libraries could institute automatic renewals, extending loan periods, and waiving fines for materials that are already out. Libraries could as well educate the public through their websites and emails on methods of coronavirus transmission and why social distancing matters even for the healthy and those at a lower risk. They could as well provide information on loans, grants, and other help that many localities are starting to provide for impacted small businesses and workers. Many libraries are also promoting electronic services (including chat reference) that can be accessed offline; a number of vendors are offering free or increased access to meet demand. Some libraries are already offering distance programs such as bedtime stories by telephone or streaming story time; this is an opportunity to experiment with or expand such offerings, though they need to be mindful of copyright concerns (Schwartz, 2020). The purpose of this article is to produce timely information about the COVID-19 virus in plain-language and examine how libraries in Nigeria have responded to the pandemic in real-time through the provision of their services. The findings from this study will serve as potential best practices for Nigerian libraries in keeping the public informed about the evolution and spread of the virus.

1.1 Problem Statement

COVID-19, a novel coronavirus disease, was declared a global pandemic by the World Health Organization (WHO) on March 11, 2020. The virus has so far infected over to twenty million people from over one hundred countries around the world. Consequently, countries had to close borders and declare a ‘stay at home’ order for citizens in places highly affected by the virus, all in a bid to stop the spread of the virus. Thus, most academic, social, political, and economic activities have been grounded or restricted to online mode. Virtually all sectors have been greatly affected by the spread of the virus. While hospitals and healthcare systems are highly overwhelmed and overstretched, it is anticipated that income losses are expected to exceed \$220 billion in developing countries according to a recent report by the United Nations Development Programme (UNDP) published in March 2020. To successfully curtail the spread of COVID-19 in countries like Nigeria, institutions whose services are aimed at promoting positive change, development, orientation, and re-orientation in the society, must collaborate with the government of the day. The library being a perfect example of such an organization, must play a significant role by providing quality services (including dissemination of quality information) to the populace and acting as a link between the country’s Center for Disease Control (CDC) and the citizens. Libraries, in addition to their educational, recreational, and socio-economical relevance to the society, provide information that creates awareness/sensitization to citizens in the society. This is very important because awareness creation is crucial to winning the fight against COVID-19, as citizens need to be aware of the virus preventive measures such as social distancing, good hygiene practices, and regular use of hand sanitizers amongst others. It is on this premise that this study was conducted to examine the role and contributions of Nigerian libraries in curtailing the spread of the COVID-19 Pandemic.

1.2 Objective

The main objective of this study is to examine the role and contributions of Nigerian libraries in curtailing the COVID-19 pandemic. Specifically, the study sought to:

- (a) Identify the services delivered by Nigerian libraries amidst the COVID-19 crisis.
- (b) Ascertain the frequency of the services delivered to library patrons in the period of the pandemic.
- (c) Find out the activities organized by Nigerian libraries to curtail the spread of COVID-19 pandemic in the country.
- (d) Examine the measures put in place in Nigerian libraries to curtail the spread of COVID-19.
- (e) Determine the level of Nigerian libraries' preparedness for a global pandemic.
- (f) Investigate the challenges faced by libraries in services delivery amidst the COVID-19 crisis.

1.3 Research Questions

The following research questions guided this study:

- (a) What are the services delivered by Nigerian libraries amidst the COVID-19 crisis?
- (b) How often were the services delivered to library patrons during the COVID-19 pandemic period?
- (c) What are the activities organized by Nigerian libraries to curtail the spread of the pandemic?
- (d) What are the measures put in place in Nigerian libraries to curtail the spread of COVID-19?
- (e) What is the level of Nigerian Public libraries' preparedness for a global pandemic?
- (f) What are the challenges faced by Nigerian libraries in services delivery amidst the COVID-19 crisis?

2. Literature Review

2.1 Libraries and Support during Pandemics

In an earlier study, Featherstone, Lyon, and Ruffin (2008) interviewed library professionals who had direct experience with disaster response (such as post-Hurricane Katrina and post-SARS pandemic). Through these interviews, the researchers were able to identify emergent roles that these libraries played during the disaster. The roles included institutional support - a command center for activities supporting members of the community; collection management - for the maintenance of the collection throughout the disaster; information dissemination - disseminate reliable information about ongoing events; internal planners - provide support to staff; community support - for emotional support and distribute donations; government partners - develop/distribute reports on an evolving situation; educators and trainers - to curate information and provide instruction for emergency responders; and information community builders - to restore the normal functioning of the library after the

disaster. These roles are all important for restoring the normal functioning of the library after the pandemic.

Also, Zach (2011) examined public libraries' responses during the 2009 H1N1 pandemic. In his case study, Zach noted that many libraries failed to provide links to information from reliable sources like the CDC (only 15 of the 50 largest public libraries provided links). He criticized libraries for providing information only about the library during the crisis, rather than information about the crisis itself, and encouraged further collaboration to provide relevant and timely information to patrons.

In the same vein, Malizia et al. (2012), noted that libraries may serve important collaborative roles with community emergency responders. The authors point to the National Network of Libraries of Medicine as a source of information and leadership around which to rally. As such, they use examples of the network's guidance following Hurricane Katrina to offer support to fellow library professionals: take advantage of library staff's skills in providing reliable information to the public (this is particularly viable with the growth of chat reference). Featherstone et al. (2012) similarly discussed the process of disseminating pandemic information by health librarians during the 2009 H1N1 pandemic. The researchers found that planning for a disaster response was immensely beneficial in enacting a swift response. The information needs of physicians and nurses grow substantially during this time, and a measured approach allows health librarians to play a vital role in satisfying those needs. Ultimately, the librarian's ability to gather, evaluate, and curate reliable information about the pandemic was one of the most crucial roles during the H1N1 outbreak.

2.2 Activities /measure put in place by Libraries to curtail the Spread of COVID-19 Pandemic

These are roles that may be important as physical library spaces remain closed to the public, but library staff may continue to offer remote support. Through library websites and social media pages, recent and reliable information may be shared to help combat rampant misinformation in times of pandemic. Libraries may be seen as a source for community updates, they may even provide remote services like storytimes for children, through YouTube and other social media. There is ample room for the strengths libraries have worked to develop over the past many decades to be on full display during a time of the pandemic.

In order to fulfill these roles, libraries have to think of a way of operating outside the physical structure. "As was seen in the aftermath of the 2004 and 2005 Gulf Coast hurricanes, libraries have also played an important role in their communities during these crises by providing access to the Internet as well as other critical services such as helping users to locate family or friends, to check on the status of affected communities, and to fill out forms" Zach and McKnight (2010).

Libraries also have over the years used the social media platform to provide information to the public during a pandemic. This is mentioned in an investigation by Giustini (2006) that with respect to library services in a disaster is the role of social media, which has been identified as an effective tool for building knowledge and disseminating information in the Web 2.0 era. To further investigate the role of social media during a pandemic, Chew and Eysenbach (2010) posits that H1N1 was

the first global pandemic to occur in the age of social media and, thus, presented a unique opportunity to explore the role of social software in a pandemic. Similarly Reynolds and Tamanaha (2010) through a pilot project identified important professional functions that libraries can perform during a pandemic as actively participating in emergency preparedness meetings and listening carefully for unfilled needs and questions; creating and maintaining email lists for specific groups and needs to distribute updated pertinent information quickly and efficiently; maintaining a careful watch of PubMed, government agency reports, news reports, and NLM/DIMRC emails to provide updated information to the emergency management or preparedness committee members. However, Zach (2011) states that several years ago few libraries were proactive in providing H1N1-related information to their users. But in the present situation of COVID 19 pandemic, libraries are doing a lot of campaigns on their websites as measures to stop the spread of the COVID 19 virus.

Furthermore, Wang and Lund (2020) examined the announcement information provided by the United States' public libraries during the 2020 COVID-19 pandemic. This study compared to the findings of Featherstone et al. (2012) and Zach (2011), response to COVID-19 appears to be improved in comparison to the 2009 H1N1 pandemic. Zach reported that only 15 of the 50 largest public libraries incorporated information about the virus in their announcement. While the study of Wang and Lund (2020) is not a direct replication of Zach's study, it does employ similar methods in examining library announcements from 50 public libraries of varying sizes. 56% of these announcements included information about the virus and 80% provided links to resources like the Centre for Disease Control (CDC). This shows that many libraries were not merely concerned with providing information about the library itself, but also embracing their role as disseminators of quality information about the pandemic to their patrons. The roles of librarians following Hurricane Katrina, as discussed in Featherstone, Lyon, and Ruffin (2008) may be applicable to the ongoing situation of COVID-19. As noted in that study, libraries and librarians in the wake of Katrina served roles ranging from command centers for community-wide efforts to information disseminators that provide the most current and trustworthy information to the public.

Similarly, the International Federation of Library Associations and Institutions (IFLA, 2020) published on their website key resources for libraries in responding to the coronavirus pandemic. These resources are meant to help libraries cope with serving the public while on lockdown and also give information to the public on the COVID 19 pandemic. American Library Association (ALA) (2020) published on their website information about preparing for a pandemic, and many of the resources are specific to the influenza outbreak. African Library & Information Associations & Institutions (AFLIA, 2020) also made resources available for librarians on their website to help in the provision of online services for the public through the libraries. The Nigerian Library Association (NLA) in its twitter handle provides updates on the COVID 19 pandemic. Webjunction (2020) published library-specific resource compilations.

Furthermore, in Nigeria, The Akwa Ibom State chapter of the Nigerian Library Association (NLA) held outreach and sensitization campaigns for members of the populace to educate them on the way to stay safe from the COVID-19 pandemic. According to the information reported on their Facebook Page (https://web.facebook.com/pg/Nlaakwaibom/posts/?ref=page_internal), the association, in collaboration with other community-based organization, shared hand sanitizers, and antiseptic

soap for members in the rural area to prevent them from being infected. Similarly, libraries across the country also share COVID-19 preventive measures on their websites and social media pages in order to create awareness and sensitize their users and the society at large.

Also, libraries provide different digital resources and online programs to help users to be productive while at home. They also take surveys (that could help curtail the spread of COVID-19) and share the result with members of the public. EveryLibrary (2020) affirmed that libraries all over the world are assisting governments in the fight against the novel coronavirus by giving out information literacy sensitization training to members of the populace. Libraries assist in gathering information resources from trusted and accurate sources like Medline Plus which are easily understood by patrons. They also share Resources like the CDC summary page for COVID-19 on their website and other social media handles (EveryLibrary, 2020).

3. Methodology

The survey type of descriptive research design was employed in carrying out this study. This type of research design allowed the researchers to elicit data from librarians to ascertain the role and contributions of Nigerian libraries in curtailing the spread of COVID-19 Pandemic. The population of the study comprised 139 librarians, randomly selected from different libraries across the thirty-six states and the Federal Capital Territory, (Abuja) in Nigeria. The entire 139 librarians were adopted as the sample size for the study using the total enumeration sampling technique. The entire population was used as the sample size because the population is of a manageable size. The instrument used for gathering data was a self-developed questionnaire which was then converted to an online survey questionnaire by the researchers using SurveyMonkey (Link to the survey: <https://www.surveymonkey.com/r/PM89RHB>). The questionnaire was then administered to the respondents online via the Nigerian Library Association (NLA) WhatsApp group and the NLA Google group forum due to the total lockdown in the country during the COVID-19 crisis. The questionnaire was divided into sections. While Section A focused on the respondents' demographics, section B focused on the services delivered by Nigerian libraries amidst the COVID-19 crisis. Sections C and D examined the frequency of the services delivered to library patrons and the activities organized by libraries to curtail the spread of the Pandemic in the country. Sections E and F addressed the measures put in place by Nigerian libraries to curtail the spread of COVID-19 and the level of Nigerian libraries' preparedness for the global pandemic. Finally, section G focused on the challenges faced by Nigerian libraries in service delivery amidst the COVID-19 crises. Each of the specific research objectives raised formed sections B, C, D, E, F, and G. Each section had multiple items for respondents to select from. Items in sections B, D and E were measured using a four-point scale of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The respondents were also given space to add comments/items based on their unique library experience. The link to the survey was opened for a period of two weeks and reminder notices were sent at intervals within the period to ensure a high response rate. Data collected were analyzed using descriptive statistics.

4. Findings and Discussion

The demographic data and the study findings are discussed in the section.

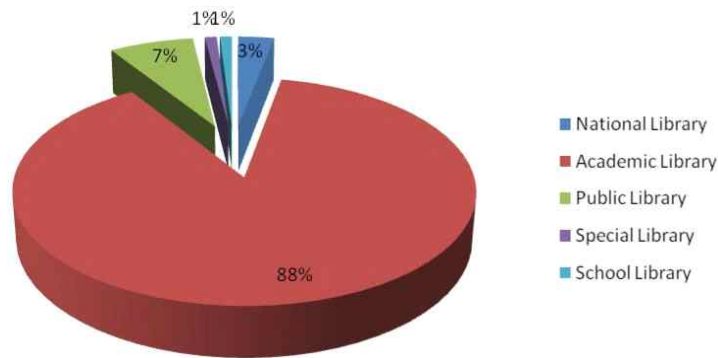


Fig. 1. Type of Library of Respondents

Fig. 1 revealed the different types of libraries that participated in the study. The chart revealed that five types of libraries namely; National Library, Academic Library, Public Library, Special Library, and School Library participated in the study. However, 88% of the total respondents for this study were from Academic Libraries, 7% from Public Libraries, 3% from National Libraries, and 1% each from Special and School Libraries. This further implies that the majority of the respondents for these studies were Librarians working in Libraries in higher institutions of learning in Nigeria.

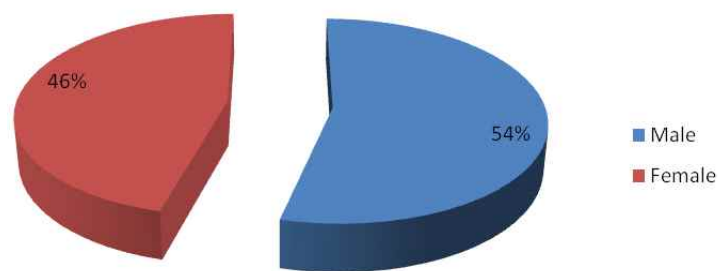


Fig. 2. Sex of Respondents

Fig. 2 presented the sex distribution of the respondents. The figure revealed that 54% of the total respondents are Male while 46% are female. This implies that more male librarians participated in the study than their female counterparts.

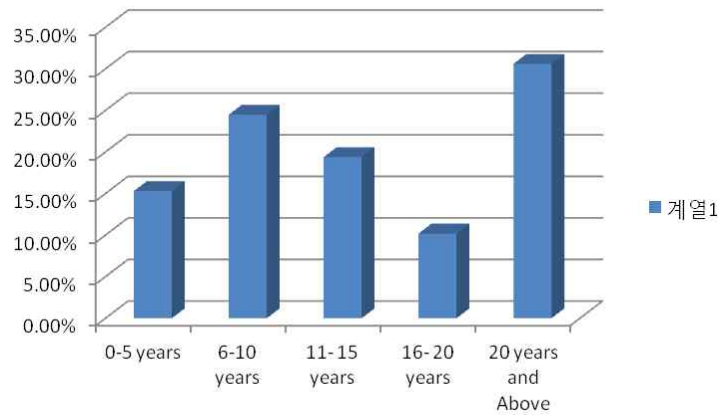


Fig. 3. Respondents' Years of Working Experience

Fig. 3 shows the respondents' years of working experience as librarians. From the chart, it was gathered that about 15% of the respondents have worked for 5 years or less, 24% have between 6 to 10 years of working experience while 19% have worked up to 15 years but not less than 11 years. Also, 10% have between 16 to 20 years of working experience while 31% have 20 years of working experience and above. The implication of this is that the respondents for this study have a good number of years of working experience, as majority of the respondents have worked for more than 5 years in the profession.

Table 1. Library Services Delivered Amidst the COVID-19 Crisis

Library Services Delivered Amidst the COVID-19 pandemic Crisis	SA/A (A)	PER %	D/SD (D)	PER %	\bar{x}
Provision of Social Resources for the Disadvantaged	90	64.7	49	35.3	2.84
Provision digital Contents to Library Patrons	105	75.7	34	24.5	3.17
E-book Loan	88	63.3	51	36.7	2.83
Organizing online streaming programs	93	66.9	46	33.1	2.93
Online reading session	96	69.0	43	30.1	2.90
Providing access to trustworthy COVID-19 Information via different media	106	76.2	43	23.8	3.13
Curating open access databases for use by both COVID-19 researchers and the entire populace	96	69.0	43	31.0	2.86
Providing awareness/sensitization on how to curtail the spread of COVID-19	109	78.4	30	21.6	3.11
Connect Patrons/Citizens to accurate and reliable data on COVID-19 cases around the world	104	74.8	35	25.2	3.09
Grand Mean					2.98
Criterion Mean				2.50	

Note: Strongly Agreed (SA) and Agreed (A) were collapsed to Agreed; Disagreed (D) and Strongly Disagreed (SD) were collapsed to Disagreed for better interpretation

Table 1 revealed the library services delivered by Nigerian libraries amidst the COVID-19 crisis. The table revealed that 109 (78.4%) of the respondents agreed that Nigerian libraries provide awareness/sensitization on how to curtail the spread of COVID-19, 106 (76.2%) agreed that libraries provide access to trustworthy COVID-19 information via different media. The respondents also agreed that libraries provide digital contents to patrons 105 (75.7%), connect patrons/citizens to accurate and reliable data on COVID-19 cases around the world 104 (74.85%), organize online streaming programs 93 (66.95%), and creating open-access databases for use by both COVID-19 researchers and the entire populace 96 (69.0%). Other services delivered by libraries in Nigeria amidst the COVID-19 crisis include organizing online reading sessions 96 (69.0%) and loaning of E-books 88 (63.3%). This implies that the services delivered by Nigerian libraries amidst the COVID-19 crisis include the provision of awareness/sensitization on how to curtail the spread of COVID-19, provision of access to trustworthy COVID-19 information via different media, provision of digital contents to patrons, connecting patrons/citizens to accurate and reliable data on COVID-19 cases around the world, organizing online streaming programs, curating relevant open-access databases for use by both COVID-19 researchers and the entire populace, provision of social resources for the disadvantaged, organizing online reading session as well as loaning of E-books. This finding is in tandem with Featherstone, Lyon, and Ruffin (2008) that libraries render a range of services which include collection management and information dissemination during the period of crisis. Furthermore, the study findings corroborate the assertion of Malizia et al. (2012) that libraries serve important collaborative roles with community emergency responders in a bid to help put an end to a health disaster.

Table 2. Frequency of Services Delivery in the COVID-19 pandemic period

Frequency of Services Delivery in the COVID-19 pandemic period	Per Hour	Daily	Weekly	Never	\bar{x}
Provision of Social Resources for the Disadvantaged	30	54	29	26	2.63
Provision of digital Contents to Library Patrons	29	62	25	23	2.70
E-book Loan	36	43	30	30	2.61
Organizing online streaming programs	27	52	32	28	2.56
Online reading session	31	60	21	27	2.68
Providing access to trustworthy COVID-19 Information via different media	40	62	18	19	2.88
Curating open access databases for use by both COVID-19 researchers and the entire populace	31	60	25	23	2.71
Providing awareness/sensitization on how to stop the spread of COVID-19	37	65	20	17	2.88
Connect Patrons/Citizens to accurate and reliable data on COVID-19 cases around the world	34	64	21	20	2.81
Grand Mean					2.72
Criterion Mean				2.50	

Table 2 revealed the frequency of library services delivery in the COVID-19 pandemic period. It is observed that 65 (46.7%) of the respondents indicated that awareness/sensitization creation on how to stop the spread of COVID-19 is delivered daily; however, 37 (26.6%) respondents noted that the service is delivered per hour. Other library services delivered daily as indicated by the respondents include connecting patrons/citizens to accurate and reliable data on COVID-19 cases around the world 64 (46.0%), providing access to trustworthy COVID-19 information via different media, providing library patrons access to digital contents 62 (44.6%), providing online reading session 60 (43.1%), curating open-access databases for use by both COVID-19 researchers and the entire populace 60 (43.1%) amongst other services. It is however worthy to note that 30 (21.6%) respondents indicated that they have never loaned out E-book. The table also revealed a grand mean score of 2.72 as against the criterion mean of 2.50. This implies that the services are frequently delivered on a daily basis in the pandemic period. This finding contradicts Zach's (2011) study that many libraries fail to provide useful information from reliable sources like the CDC in a massive health crisis. The contradiction could be attributed to the time difference in which both studies were conducted.

Table 3. Level of Nigerian Libraries' preparedness for Global Pandemic

Level of Nigerian Libraries' preparedness for Global Pandemic	SA/A (A)	PEC %	D/SD (D)	PER %	\bar{x}
The library has emergency response unit in times of Global Pandemic	57	41.0	82	59.0	2.40
There are policies in the library that addresses global pandemic situations	57	41.0	82	59.0	2.32
There are budgetary allocations for emergency library programs	47	33.8	92	66.2	2.23
There are periodic training for staff on disaster preparedness/management	46	30.9	93	69.1	2.36
There are multiple channels of communication with library patrons in case of emergency	74	53.2	65	46.8	2.58
Grand Mean					2.38
Criterion Mean				2.50	

Note: Strongly Agreed (SA) and Agreed (A) were collapsed to Agreed; Disagreed (D) and Strongly Disagreed (SD) were collapsed to Disagreed for better interpretation

The data in Table 3 revealed the level of Nigerian libraries' preparedness for the global pandemic. From the data analyzed, it was revealed that 74 (53.2%) respondents agreed that Nigerian libraries have multiple channels of communication with library patrons in case of emergency, 57 (41.0%) agreed that the library has emergency response unit in times of pandemic and policies that address global pandemic respectively, while only 47 (33.8%) respondents agreed that there are budgetary allocations for emergency library programs. Nevertheless, 93 (69.1%) and 92 (66.2%) respondents disagreed that there are periodic training for staff on disaster preparedness/management and that there are budgetary allocations for emergency library programs respectively, while 82 (59.0%) responde

nts also disagree that the library has emergency response unit and policies in the library that addresses a global pandemic situations respectively. Furthermore, from the table, it was observed that the data analyzed produced a grand mean score of 2.38 which is less than the criterion mean score of 2.50, thus, implying that the level of Nigerian libraries' preparedness for global pandemic is low. This finding disagrees with Reynolds and Tamanaha (2010) that libraries actively participate during the pandemic as they periodically hold emergency preparedness meetings as well as having an existing email list for specific groups in case of emergency. In the same vein, Zach (2011) noted that libraries are proactive in providing health-related information to users.

Table 4. Activities Organized by Nigerian Libraries to Curtail the Spread of COVID-19 Pandemic

Activities Organized by Nigerian Libraries to Curtail the Spread of COVID-19 Pandemic	SA/A (A)	PER %	D/SD (D)	PER %	\bar{x}
Use of library website to disseminate information on COVID-19 to the public	85	61.2	54	38.8	2.76
Organizing outreach to sensitize the populace	81	58.3	58	41.7	2.71
Maintaining a careful watch of PubMed, Government agency report and news report to update the both the emergency management team and the public	87	62.6	52	37.4	2.81
Production and sharing of E-fliers containing information on how to stay safe from COVID-19	85	61.2	54	38.8	2.76
Creating and maintaining of E-mail list of groups directly affected by the pandemic	77	55.4	62	44.6	2.65
Grand Mean					2.74
Criterion Mean				2.50	

Note: Strongly Agreed (SA) and Agreed (A) were collapsed to Agreed, Disagreed (D) and Strongly Disagreed (SD) were collapsed to Disagreed for better interpretation

Table 4 highlighted the activities organized by Nigerian Libraries to curtail the spread of COVID-19. From the table, 87 (62.6%) respondents agreed that libraries maintain a careful watch of PubMed, Government agency report, and news report to update both the emergency management team and the public. Also, 85 (61.2%) respondents agree that the library uses their websites to disseminate information on COVID-19 to the public as well as sharing of e-fliers containing information on how to stay safe from COVID-19, while 81 (58.3%) respondents agreed that Nigerian libraries organize outreach to sensitize the populace. Nevertheless, 62 (44.6%) of the respondents disagreed that the libraries create and maintain an e-mail list of groups directly affected by the pandemic. This, therefore, implies that some of the activities organized by Nigerian libraries to curtail the spread of COVID-19 include maintaining careful watch of PubMed, Government agency report, and news report to update both the emergency management team and the public; producing and sharing E-fliers containing information on how to stay safe from COVID-19; organizing outreach to sensitize the populace as well as disseminating information on COVID-19 to the public via the library website. This finding is in support with EveryLibrary's assertion that libraries all over the world are assisting governments in the fight against the novel coronavirus by giving out information

literacy sensitization training to the populace, gather information resources from trusted and accurate sources like Medline Plus that are easily understood by patrons. Similarly, the finding is in conformity with Wang and Lund's (2020) study that libraries provide links to resources like the Centre for Disease Control (CDC), disseminate information on safety tips, and provide access to remote online streaming programs as part of the activities to curtail the spread of the virus.

Table 5. Measures put in place in Nigerian libraries to curtail the spread of COVID-19

Measures put in place in Nigerian libraries to curtail the spread of COVID-19	Agree	PER %	Disagree	PER %
Reduced library opening hours	88	63.3	51	36.7
Provision of washing Materials and hand sanitizers to both library staff and patron	103	74.1	36	25.9
Sanitizing of discharged library materials	64	46.0	75	54.0
cleaning supplies provided directly to library staff	65	46.8	74	53.2
Regular cleaning of furniture and other library equipment	79	56.8	60	43.2
Regular supply of paper towels in restrooms	48	34.5	91	65.5
Regular communication to staff and patrons with updates and guidelines on safety measures	88	63.3	51	36.7

Note: Strongly Agreed (SA) and Agreed (A) were collapsed to Agreed, Disagreed (D) and Strongly Disagreed (SD) were collapsed to Disagreed for better interpretation

From Table 5, it is evident that the measures put in place in Nigerian libraries to curtail the spread of COVID-19 include the provision of washing materials and hand sanitizers to both library staff and patrons 103 (74.1%); regular communication to staff and patrons with updates and guidelines on safety measures 88 (63.3%); reduced library opening hours 88 (63.3%); regular cleaning of furniture and other library equipment 79 (56.8%) and cleaning supplies provided directly to library staff 65 (46.8%). Also, some respondents noted that other measures put in place in their libraries include total lockdown of the library, providing awareness to library patron through different displays in the library, and compulsory use of face mask by both staff and patron. However, 91 (65.5%) respondents disagreed that there is a regular supply of paper towels in restrooms. This implies that the measures put in place in Nigerian libraries to curtail the spread of COVID-19 in Nigerian include the provision of washing materials and hand sanitizers to both library staff and patrons; regular communication to staff and patrons with updates and guidelines on safety measures; reduced library opening hours; regular cleaning of furniture and other library equipment, cleaning supplies provided directly to library staff, the total lockdown of the library, providing awareness to library patron through different displays in the library and compulsory use of face mask by both staff and patrons. This finding is in line with the publications of IFLA (2020), ALA (2020), and AfLIA (2020) that total lockdown of libraries, provision of handwashing materials and hand sanitizers, frequent cleaning of library equipment and supplies as well as regular communication to staff and patrons with updates and guidelines are measures to be adopted by libraries to curtail the spread of COVID-19.

Table 6. Challenges Faced by Nigerian Libraries in Services Delivery amidst the COVID-19 Crisis

Challenges Faced by Nigerian Libraries in Services Delivery Amidst the COVID-19 Crisis	Agree	Per %	Disagree	Per %
Inadequate skills and knowledge of utilizing the Internet resources and services among the populace	99	71.2	40	28.8
Lack of adequate infrastructure/computers with Internet connectivity	93	66.9	46	33.1
Poor Internet services delivery among network providers	99	71.2	40	28.8
Lack of adequate power supply	105	75.5	34	24.5
High cost of data subscription	86	61.9	53	38.1
Difficulties in accessing and retrieving information from the Internet	75	54.0	64	46.0

Table 6 revealed that the challenges faced by Nigerian libraries in services delivery amidst the COVID-19 crisis include lack of adequate power supply 105 (75.5%), poor Internet services delivery among network providers 99 (71.2%), inadequate skills and knowledge of utilizing the Internet resources and services among the populace 99 (71.2%), lack of adequate infrastructure/computers with Internet connectivity 93(66.9%), high cost of data subscription 86 (61.9%) as well as difficulties in accessing and retrieving information from the Internet 75 (54.5%). Furthermore, some respondents also noted that the general lockdown directive by the Federal Government of Nigeria in some states, the industrial action currently embarked upon by the Academic Staff Union of Universities (in Nigeria), lack of preparation for global pandemic and inadequate funding of libraries are other challenges faced by Nigerian libraries in services delivery amidst the COVID-19 crisis. Nonetheless, 64 (46.0%) of the respondents disagreed that patrons have difficulties in accessing and retrieving information from the Internet. The revelation from this study is in tandem with that of Korah and Cassidy (2010) and Salaam and Adegboro (2010) that poor Internet services, epileptic power supply, inadequate ICT skills, and inadequate infrastructure are challenges facing libraries in developing countries. Similarly, Quadri (2013) opined that slow speed of the server, distance to the library, power failure, and attitude of library staff, system breakdown, and lack of skills in using the Internet, insufficient workstations, and time constraints as challenges facing effective services delivery in libraries. These challenges are however considered perennial challenges facing libraries in Sub-Sahara Africa.

5. Conclusion

Discussion of the role of libraries in providing reliable information during times of crisis and pandemic has existed for many decades and the advent of the Internet, social media, and other means for libraries to communicate with the public has only further enhanced the capacity of libraries to serve in this role. The purpose of this study is to produce timely information about the COVID-19 virus in plain-language and examine how libraries in Nigeria have responded to the pandemic in

real-time through the provision of their services. To successfully curtail the spread of COVID-19 in countries like Nigeria, public institutions whose services are aimed at promoting positive change, development, orientation, and re-orientation in the society, must collaborate with the government of the day. The library being a perfect example of such an organization, must play a significant role by providing quality services (including dissemination of quality information) to the populace and acting as a link between the country's National Center for Disease Control (NCDC) and the citizens. Libraries, in addition to their educational, recreational, and socio-economical relevance to society, provide information that creates awareness/sensitization to citizens in the society. This is very important because awareness creation is crucial to winning the fight against COVID-19, as citizens need to be aware of the virus preventive measures such as social distancing, good hygiene practices, and regular use of hand sanitizers amongst others.

6. Recommendations

- (a) Online library services should be provided (24/7) to all library users and the general public by giving unlimited access to the libraries' website. This is necessary to help the public keep up with happenings around the world on the COVID-19 pandemic. In addition, online training activities should be activated on library websites to help those who need to acquire basic skills of the computer and the internet while at home.
- (b) Libraries in Nigeria should organize outreach services in local communities who do not have access to electricity and or the Internet. The outreach will include using graphical and demonstrative communication to educate the people on how to keep safe and stop the spread of COVID-19.
- (c) The Nigerian Government should include librarians in the policymaking process concerning preparedness for pandemics in the future, this should be done through the Library Professional Associations (LRCN and NLA). Key in their pandemic preparedness policy should be the reduction of Internet subscription rates for the public during the pandemic; this will help the public gain easy access to online activities organized by libraries.
- (d) Libraries need to draw up policies that will help them manage pandemics in the future. Such policies should include: budget for the provision of constant electricity to power the library servers that will be used to reach out to the public; and training and positioning of librarians on the skills needed for virtual library services, especially during a pandemic.
- (e) Government should make funds available to libraries to get them ready for the task of providing information about the pandemic and educating the public through the library website, social media, and outreach programs.

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