GLOBAL SARS-CoV-2 PANDEMIC: THE IMPACT ON LIBRARIES

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Abstract

The library is one of the sections in an educational sector that contributes to knowledge. Most of the libraries worldwide operate on a 24-hr basis, but a severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic came and ravaged many countries of the world and turned their libraries into 'ghost' arenas for about eight months. To protect the stakeholders (students, lecturers, staff, and visitors) from the infection of the virus, the management of each institution and associations ordered the partial or total closure of the libraries until the official announcement of the reduction of the risk from SARS-CoV-2. To ensure continuous contacts to the library, many libraries have resulted in the use of virtual methods where they provide e-books, e-journals, e-magazines, and many others to those who require the services. The objective of this work is to present a systematic review of the effects the pandemic has on the libraries and the stakeholders and the preparations for re-opening partially or fully.

Keywords: *Coronavirus, Digital, e-learning, Library, WHO*

1. INTRODUCTION

The SARS-CoV-2 virus belongs to the family Coronaviridae of the order Nidovirales. Corona represents crown-like spikes on the exterior surface of the virus, according to Shereen et al. (2020), so it was called COVID. COVIDs are small in size (between 65-125 nm) and, as a nucleic substance, have a single-stranded RNA with a size between 26 and 32 kbs long (Figure 1). The coronaviruses alpha (alpha), beta (β), gamma (γ), and delta (δ) belong to the same family, causing acute pulmonary injury (ALI) and acute respiratory distress syndrome (ARDS). The SARS-CoV outbreak in Guangdong, China, in 2002 reported that the virus affects humans (Zhong et al., 2003). Kumar et al. (2020), noted that vectors that transmit Coronavirus to humans are animals such as birds, camels, pigs, rodents, bats, and cats. Between December 2019 and January 2020 in China, a novel CoV (2019-nCoV) was found in three sick people in Wuhan (Zhu et al . , 2020; Kumar et al. 2020). Since then, because of contact with droplets released by the sick, the number of infected people has increased (Guan et al., 2020;

Bai et al., 2020). According to the World Health Organization (WHO, 2020a), human fatalities by country were registered on 27 September 2020 as follows: the United States of America (203, 329), Brazil (141,406), India (95,542), Mexico (76,243), the United Kingdom (41,988), Italy (35,835), Peru (32,142), France (31,541), Spain (31,232), Iran (25,589), Colombia (25, 296) and the Russian Federation (20,3855). As of 10 June 2020, over 7 million confirmed cases and 4,000 deaths have been recorded by WHO worldwide with the following breakdowns: Americas (3, 415, 174), Europe (2, 321, 147), Eastern Mediterranean (677, 338), South-East Asia (392, 674), Western Pacific (193, 178) and Africa (145, 287) (WHO,2020b).
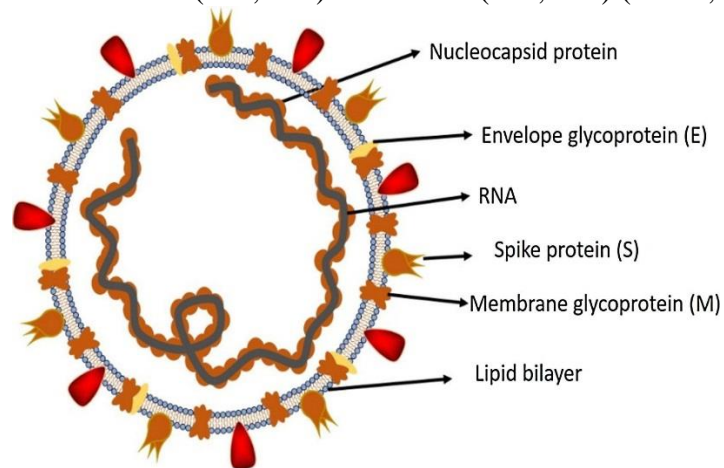

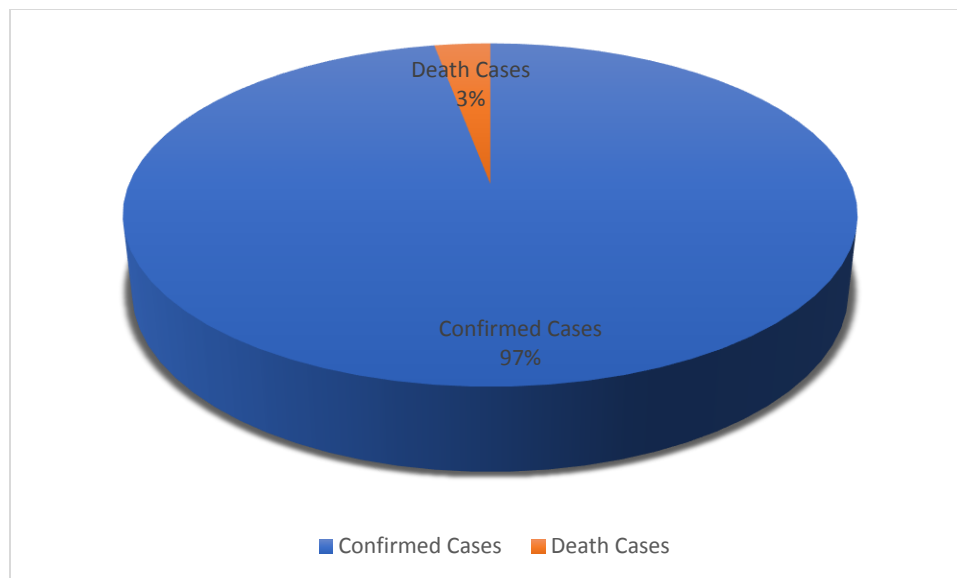Figure 1: Structure of SARS-CoV-2 (Source: Shereen et al., 2020)

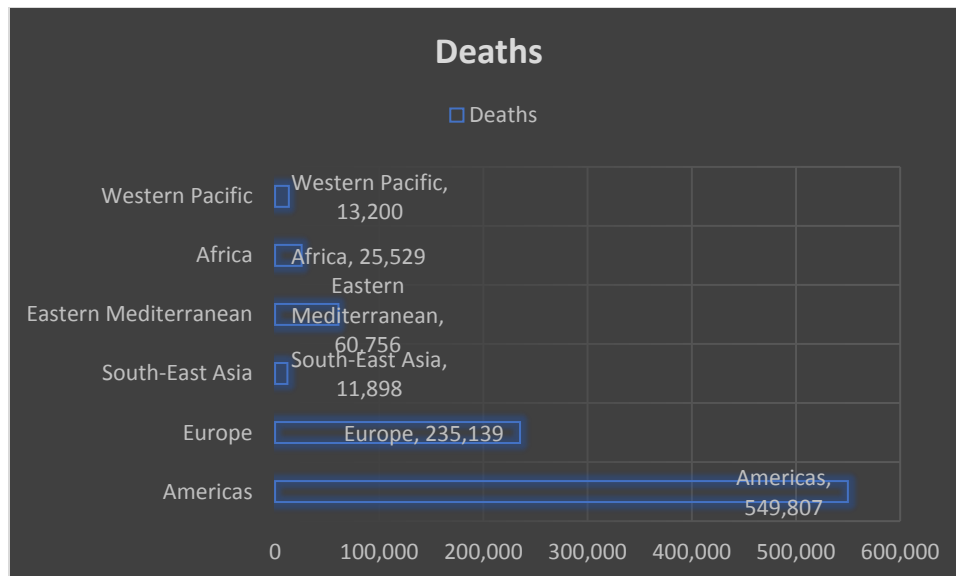Figure 2: Global Situation of Cases (Source: WHO, 2020a)

Figure 3: Regional Situation of Death Cases (Source: WHO, 2020a)

The library is one of the parts that lead to information in the educational field. It is a building with a lot of space and these rooms contain several different books, periodicals, and visual aid gadgets (collections) for the use of group or institutional stakeholders. Different functions represent the library (Lynch et al., 2016). Digital publishing is one of its functions (Lefevre and Huwe, 2013; Collister, et al., 2014; Sandy, 2016; Bailey, 2017). Most libraries around the world run on a 24-hour basis, but the pandemic of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) came and destroyed many countries around the world and converted their libraries for about eight months into 'ghost' arenas. The coronavirus problem became a pandemic within the first few months, the libraries were still running normally, people did not take it seriously. This care-free attitude led to a large number of confirmed cases and deaths. Then each nation's government was compelled to take drastic measures. A report by IFLA (2020), the International Federation of Library Associations and Organisations, confirmed the closing of most libraries in South Africa, Bangladesh, Albania, Peru, the United Arab Emirates, just to name a few. Services are only available to Malaysia, New Zealand, Hong Kong (China), Poland, Spain, Tunisia, the Netherlands, Estonia, the Bahamas, and several others. Sweden provided between 85 and 95 percent of the regular service in partial services, while Virgin Islands Libraries in the United States resumed service in July, but were forced to close within a month of opening. The closure would have impacted institutional libraries in more than 50 countries, either completely or partially.

This paper provides insights into the present state of the libraries in this coronavirus pandemic period. The paper sheds an insight into the state most libraries are and the challenges facing many of the libraries. The main aim of this paper is to present a review of the gaps in this educational sector while highlighting the challenges and limitations of the present situation. This paper also provides recommendations and guidelines for directions to enhance public health and well-being.

2. LITERATURE REVIEW

As of May 2020, more than 350,000 deaths have been reported from the SARS-CoV-2 pandemic globally. There were several items not understood about the virus during the early periods (the path of infection transmission, virus origin and environmental persistence, diagnostic tests, therapeutic strategy, high-risk subjects, lethality, and containment policies) (Martelluci et al., 2020).

The pandemic was first seen in Wuhan, China, in December 2019, according to Abulude and Abulude (2020). WHO announced it to be a pandemic by March of the following year (WHO 2020). The pandemic has since been a huge blow to education (UNESCO, 2020), politics, climate and environment, economics, culture, xenophobia and racism, and worldwide health issues.

Ifijeh and Yusuf (2020) stated that owing to the role played by academic universities during the pandemic, there was a paradigm shift in the teaching methodologies of Nigerian universities. Their research x-rayed the ongoing trends in virtual learning and libraries' major effects. Libraries must follow responsive library website design, blended library model, and the use of social networks to produce positive results in teaching methodologies after the pandemic. Also, the study proposed the use of relevant ICT infrastructures to achieve more of the libraries' set goals.

According to Corsillo (2020), many library staff complained of fatigue and anxiety during the last 6 months of the pandemic, resulting in low workforce morale. The reporter described the workplace challenges as flexibility in evolving workflows, the increased prevalence of remote work, and potential perceptions of what work will be like once the virus is under control, strain, stress, anger, anxiety, and lack of funds due to the economic impact of the virus.

Researched on the effect of COVID-19 on public library collections using the survey approach on 400 respondents from 36 states and Canada, the Panorama Project and Library Journal (2020) revealed that 99 percent of public libraries were shut down by the end of April 2020, while others did skeletal work. Second, just 55 percent have communication (access to physical/digital materials) with students from local schools. Thirdly, the movement of physical materials was decreased by 92 percent.

Falt and Das (2020) have estimated that the closing of libraries has impacted about 90% of the student population worldwide, resulting in an unprecedented rise in distance learning. In e-books and e-learning, learners are more involved. They also noted that the United Nations Educational, Science, and Cultural Organization (UNESCO) has initiated the Global Student Assistance Education Coalition. 200 countries have gained support from the UNESCO World Digital Library and the Library of Congress.

The management strategy of their library changed during the COVID-19 pandemic, according to Chambers County's Valerie Jensen, as stated by Hunt (2020). The full-time workers are saddled with regular duties ranging from webinars, training, database tutorials, lectures, ILS maintenance, reviewing voicemails, emails, and so on, to justify their salaries while at home. They are supposed to send in the weekly summary of the tasks. It was concluded in conveyed interviews conducted by Hunt (2020) during the pandemic that the goals of library

management had shifted. According to the administrators, some of the goals include: taking public temperatures, cleaning open spaces, tracking social distancing, designing staff projects (full and part-time), building more virtual libraries, and making e-collections easier to access.

Forsyth University Relations Library at Fort Hays State University (2020) seeks community-wide submissions to document the impact of the new coronavirus (COVID-19) global health crisis on individuals, families, organizations, businesses, and communities that are required for inclusion in the university archive with the aim of historical and pure research

Witteveen and Peet (2020) think that libraries must be open for normal activities, but the safety protocols of employees should be strictly taken care of while doing so. Efforts must be made to provide the required security products. They also wrote about the unruly behavior of consumers and other guests who refuse to wear or pull up masks and remain socially aloof.

The importance of librarians in the pandemic era has been addressed by Okike (2020). The author believes that librarians often play a role in complementing the efforts of scientists and researchers to find lasting solutions to the SARS-CoV-2 pandemic by using various networks (virtual means) to disseminate relevant knowledge and services to the community because visits to the library would be restricted due to lock-down.

Crowe (2020) stated in a survey by the Public Library Association (PLA) that about 98 percent of the libraries were fully shut down, but workers used virtual methods to take care of their duties. More than 70 % of respondents used social media to exchange information about the pandemic, while over 60% used the same media to encourage participation in the census. Finally, before the pandemic, 81 percent of respondents had public Wi-Fi access when buildings were closed, to cushion the impact of the pandemic, and 12 percent of respondents added Wi-Fi access.

Enis (2020), after 130 students and five workers tested positive for COVID-19 within a week of beginning lectures, it was announced that the University of North Carolina at Chapel Hill will go virtual. One hundred and forty-seven (147) students and faculty had also tested positive at the University of Notre Dame, IN, as a precaution, libraries, and publishing press such as Cambridge University Press (CUP) consent to the use of e-textbooks and other course materials.

Aiwuyor (2020), wrote about Ed Brooks and Shane Coleman's efforts to assist a student in his project to map the potential relationship between the region's poverty levels and the spread of the virus. They created the LibGuide to solve this issue, which was able to locate viral spread data at the county level, and proposed approaches to how that data could be connected.

3. METHODOLOGY

Four literature databases were used to identify relevant publications about Corona Virus and library for this systematic review. Web of Science, Google Scholar, Science Direct, and PUBMED are the four databases mentioned. On September 19, 2020, the search for relevant publications in these databases began. The search results were also exported to the Sysrev platform, which provides direct access to publication titles and abstracts. The publications that

were chosen were then imported into the Zotero reference manager. The initial search query for this systematic review was defined as the following keyword combination:
"covid-19," "pandemic," "library," and "social distancing"
The search yielded 145 publications from all four databases: 40 from Web of Science, 51 from ScienceDirect, 10 from Google Scholar, and 44 from PUBMED. Out of the lot, only forty six of the references were used for the review work.

4. LIBRARIES' REACTION TO THE SARS-COV-2 PANDEMIC
Libraries have discussed their specific circumstances in various countries and thus have adjusted their goals to minimize employee and employer risk. Many libraries imposed partial limits on library operations to prevent large meetings or events. In addition to this, good hygiene was implemented by the library users (the use of soap and warm water, workbench, and computers must be clean, the use of face and nose masks, and hand sanitizer).

Skeletal services have been rendered in many countries, only to safeguard the people at risk (the vulnerable), especially the elderly people aged 60 and above. To fix this issue, excluding already booked and the use of quarantine policies, not all visitors are permitted in the halls.

First of all, in places where the libraries have been completely closed, all employees are supposed to operate from home, but if they are required to be in the library space, employees are expected to strictly adhere to the measures of good hygiene and social distance.

Secondly, critical tools and equipment and room for the easy discharge of duties were made available compulsorily. Examples of printing devices of that type.

Third, strict library rules on the borrowing of materials can be shortened, efforts must ensure that the rules are relaxed a little bit. For instance, an amnesty can be given on borrowed physical books, and the amount of eBook users can borrow can be increased.

Fourthly, to promote the use of digital libraries and other resources and to increase awareness of digital resources, directories, and posters in the library's relevant locations.

4.1. Restricted face to face help
During the pandemic face to face (physical) encounters between the library staff and their visitors were reduced to the minimum. For stakeholders to continue enjoying the dividends of the library, the following media were applied.

4.1.1   Phone meetings
A conference call is a phone call in which, at the same time, someone speaks to many people. The call to the conference may be configured to encourage the called party to participate or set up during the call so that the called party merely listens to the call and is unable to speak. It is sometimes called ATC (audio teleconference). Conference calls can be designed so that the calling party calls the other participants and adds them to the call; however, participants are usually able to call into the conference call themselves by dialing a telephone number that connects to a "conference bridge," which is a specialized type of equipment that links telephone lines. Many libraries are using this method of communication for meetings. With most library

buildings temporarily closed to fight the COVID-19 pandemic, the need for the meeting room is coupled with the change to digital service delivery by some libraries (Bakija, 2020).

4.1.2   Email

Electronic   mail   (email   or   e-mail) is how people using electronic devices exchange messages ('mail') between them.   Email operates through networks of machines, mainly the Internet. Email servers accept messages, forward, send, and store them. Massages can only be received with a correct email address. A good and well-maintained library should have the email addresses of the users and staff for ease communication as soft copy. It is fast, cheap, easy, can be used to send bulky messages, and be easily retrieved. Since it is serving its functions in this pandemic, librarians are using it.

4.1.3   Zoom and Microsoft teams virtual meetings

The use of Zoom video conferencing has exploded in the event of the pandemic with libraries offering community resources such as tutoring sessions, group study, community groups, and more (Bakija, 2020). The libraries were supported by this medium (Zoom meeting) in digital service delivery. The library staff typically submit the passwords they share only with their meeting participants to encourage participants to participate in the meeting. With time, the use of Zoom will be adopted by more libraries.

4.1.4   Text

One of the service elements of most telephones is text messaging. To exchange short text messages with an individual or as many as possible (bulk SMS), this is the same as sending SMS (short message service). Message texting is an Internet system and a mobile computer. Given the availability of a bulk SMS, it is possible to send relevant and urgent information to all library stakeholders. When the library operations had to be closed down, a mass message was sent to all users of the library.

4.1.5   Social media

A web-based knowledge distribution platform is social media. Librarians are becoming popular as a means of connecting with library users, even as far as remote users within the group are concerned (Ganiyu and Oluwafemi, 2016; Chukwuyere et al., 2020). In library facilities, the use of social media such as Facebook, Twitter, YouTube, LinkedIn, Skype, and Google+, as well as other social resources, is being implemented. This is also ideal for use in information marketing and the provision of customized information services to groups of people or people (Okike, 2020). The role of social media in the dissemination of health information on COVID-19 was echoed by Chukwuyere et al (2020). NCDC has used this medium in Nigeria to pass critical messages on to people. Ladan et al. (2020) believe that this medium is required by librarians to procure, analyze, bundle, store and disseminate information to library users during the COVID-19 pandemic period, apart from the non-challenging attitudes of some users to spread fake news.

4.1.6   Library websites

A website is only the production of web pages and other related material defined by their domain name and published on at least one web server (Techopedia, 2020). The website was built to convey specific, meaningful information to a single user/audience so that the reader would understand the messages passed through. There are various forms available for homepages, magazines, e-commerce, blogs, portfolios, landing pages, social media, and registry, and contact pages. The website of the library will allow materials such as texts, photographs, and videos to be displayed on the internet, which will be accessed and used by users of the library. In many nations, this medium has been of great benefit to customers. No doubt, the library websites were of great use during the COVID-19 pandemic. The only challenge is the use of passwords. When permits are given, the passwords are then published. Experience has shown that most libraries made free use of their library resources during the pandemic (IFLA, 2020). Libraries are already moving (providing COVID-19 updates, library re-openings, virtual activities, and real-time notifications) to online communication with their users.

4.1.7   Quick response code (QR code)
A Quick Response Code (QR) is a machine-readable optical label that contains information about the object to which it is attached (web links / URLs, phone numbers, images, other pieces of textual information, or even a combination of these). Libraries may use two-dimensional barcodes that guide users to preferred websites on a certain topic or subject area (Okike, 2020).

A case study is that of Lethbridge University, where QR codes are pasted on the Bookable Community Work Room library doors. On each entrance, the QR codes connect directly to the booking calendar for the respective rooms and allow a room to be booked in seconds as you walk in. As a first-timer to the venue, one must log in to a room's U of L account book using the QR codes, which can be saved for future use on the phone. To connect you to online feeds, the Library uses QR codes in pamphlets, on posters, on notice boards, and other printed items (University of Lethbridge, Library, 2020). A mobile device would require a QR Reader (QR Scanner), a monitor, and internet access to read a QR code.

4.2   Loans and Renewals for Books
The pandemic has serious effects on loans and the renewal of materials because of the stringent measures put in place by the various governments. Only online materials were allowed during the lockdown, but things are improving now that partial activities to the libraries are on. Only a few of the materials are loaned out because of safety precautions both to the users and staff. The 'Love Affair' of Americans with libraries has only increased since the pandemic and so has their borrowing of books. According to overdrive, which libraries use to loan out digital resources, since March 9, weekly e-Book loans across the United States have risen by almost 50 percent, even though some libraries remain physically closed (Kaplan, 2020).

4.3   Financial Assistance
No doubt the majority of the people and library users will need funds, although the library cannot provide the fund, they have assisted in providing necessary information and guidelines to appropriate financial institutions. For example, the Framingham Public Library assisted the City of Framingham to disseminate the application information. The EveryLibrary Institute partnered with hundreds of library supporters and leading library vendors in celebration of

National Library Worker Day on April 21, 2020, to offer "life grants" of up to $250 to eligible library employees, librarians, and public, school, and academic library staff who are in urgent financial need (Language Magazine, 2020).

4.4 Document scanning
To assist the users at home, efforts by the library staff were geared up, for example, pdf of books and articles are scanned and sent to anyone making the request. The transactions are done with phones, email, internet, and social media.

4.5 Writing center
During the pandemic, some libraries assist interested people to write their projects, letters, and others. There are many indisposed during this period one way or the other and so if they visit any of the libraries that have this facility the assistance is always rendered though it may cost some dines. The Writing Centre aims to assist in a secure and non-judgmental space in writing, arranging, and formatting academic articles. The Writing Advisor will provide positive guidance and suggest tools and techniques that are specific to one's needs, whether one is in the early or the final stages of the writing process. If someone is trying to prevent plagiarism, grasp the directions and standards of one's teachers, or develop one time management skills, one may also obtain support.

5 LIBRARIES PREPARATIONS TOWARDS RE-OPENING
5.1 Preparing for re-opening
Before the government gives the go-ahead, the risk assessment for the re-opening of libraries should be made for the safe re-opening for a safe and required adjustment of library policies. Limits should be defined on the library user numbers at a time, and attempts should be aimed at making the rules work perfectly strictly. There must be no big meeting within the vicinity of the libraries at all. Preventive plans. Where appropriate, routine cleaning and fumigation processes should be implemented, especially focusing on surfaces where the virus seems to last the longest (plastics, metals other than copper).

Develop a process, if possible, where there would be no human interaction. It is also important to establish a plan for how to react to someone with symptoms in the library. Both workers have the equipment and training to remain healthy. To continue to remain secure, it is important to ensure continuous online services and facilities to minimize the number of visitors to the library. Both daily changes and new regulations must also be easily and communicated to all members of the library, both online and online. Finally, in the event of an unexpected situation of the return of a pandemic, plans must be put in place (Kampf et al., 2020).

5.2 Staying safe at all times both at home and at work
On this assumption, it is advised that people should follow respiratory etiquette, regular use of hand sanitizer (alcohol-based), washing of hands, and keeping a distance from someone who coughs or sneezes. It is the wish of the WHO not to lose any human life. Hotspots with COVID-19 should be avoided. For advice on testing and referral, anyone with mild symptoms can self-isolate and contact their medical supplier or a COVID-19 support line. Anyone with fever, cough, or breathing problems should contact their doctor and seek medical treatment. Librarians should be wary of the welfare of the library's workers, guests, and others.

5.3 Materials handling

The risk of infection through contact with coronavirus-carrying materials is high. It is not possible to provide explicit advice on this but to obey the universal rules on keeping hands clean and not touching ears. Coronavirus lives longer on plastics and steel and for less time on cardboard or copper, according to Kampf et al. (2020), although these experiments took place under laboratory conditions and the risk of infection decreases with time, whereas the risk of COVID-19 infection from a book covered with a plastic cover cannot be negligible after 72 hours, according to Public Health England. After 24 hours, the cardboard or paper-covered book is negligible (Libraries Related, 2020). If an infected person is likely to come into contact with any content in the library, waiting (quarantine 24-72 hours), or using healthy cleaning procedures before handling returned books would make sense.

There are exceptions to this recommended quarantine period. Five days for libraries in Slovakia, five days to two weeks (Argentina), and ten days for France and Kaslik Holy Spirit University in Lebanon (IFLA, 2020). Until handling goods, not all countries encourage the use of sanitizers because alcohol can be toxic to the products, instead of suggesting quarantine. As for computer equipment, which is widely agreed to bring higher risk, most advice focuses on trying to clean this and can be removed and stored in a secure location. For the handling of materials in libraries, the use of protective gloves is recommended. It must be properly discharged into the special bin after each use.

5.4 Social Distancing and Delivery Services

Studies have shown that SARS-CoV-2 is infectious by coughing, sneezing, speaking, or simply breathing from the droplets produced by an infected person (Tellier et al., 2019; Seminara et al., 2020). The suggested social distance (2-meters) depends on the region, but should not be less than 1 m (Qureshi et al., 2020; Payne, 2020). Specific plans should also be proposed for disadvantaged users (vulnerable) and COVID-19 patients. Pick-up systems, livestock, and any other approaches considered fit should be used for the special distribution of library materials. Placing current events online and showcasing new cases should be a priority for library staff.

5.5 Remotely delivering services

Libraries around the world should aim to encourage digital services during and after lockdown, such as online concerts, exhibits, e-books, bibliotherapy provision, learning support, digital tools, remote lending services, art projects, storytelling, and others. New ways of efficiently providing teaching should be sought by all libraries. Materials to help all library stakeholders must be created. It is important to promote the exchange of book reviews and other information via social media. Libraries must be prepared to promote research, such as helping to direct research into how social media knowledge about COVID-19 and other fields of study is disseminated. Working with newspapers, radio stations, and other means of communication should be assured to raise awareness.

5.6 Remote Working Management

People in the library are facing problems with how to effectively manage remote work. To do this, efforts should be made to plan, ensuring that all employees are provided with the necessary tools and training to work in the library efficiently and safely from home. There has been an increase in Facebook groups and virtual communities as spaces for people to interact

and learn during the pandemic era (IFLA, 2020). WhatsApp groups and virtual drop-in sessions for librarians can facilitate online conferences and a series of virtual events and social networking initiatives to share their experiences and shared activities.

5.7 Libraries Reopening
It is advised that the opening of libraries should not be hurried. Pending an improved condition, all attempts should be made. Decisions to reopen libraries may be based on the authorities' overall risk assessments, which could include: surface risk analysis, close interaction with people, how people use libraries, and overall levels of infection in the area. What makes sense, however, is to start with risk evaluation, then create plans, and only then set timings for the resumption of various services. Plans should be made for the possibility of returning to lock-down if necessary.

5.8 Limitation of numbers and concentration of library users
Owing to social distancing, one of the steps to be taken in reopening the libraries is to restrict the occupants of the library at any time. The use of the ticketing system used in Macao and Hong Kong (China) is a good example (IFLA, 2020). At any given time, the number of inhabitants depends on the size and space inside the building. Reservations of supplies, several purchases, any visits, and other help for the library (printing, scanning, bookbinding, etc.) should be reduced. Both of these may only be made by appointment. Other options for reducing numbers are to limit the time spent in the library, which can be designed by the employees in charge and, where possible, provide services outside the libraries, ensure social distance, to remove some furniture so that people sit further apart, and another step involves keeping areas used for socializing closed.

5.9 Organizing programs and events
There are already plans in the UK, Slovakia, Austria, Poland, Belgium, and France, where re-opening is more advanced, to make events possible again. These are attributed to reductions in infection rates, and, in certain places, a complete lack of infections. Other countries should follow suit, especially in developed countries.

5.10 Hygiene promotion and safekeeping of workers
Promoting hygiene is the main theme for the prevention of SARS-CoV-2 infection during the pandemic period (Singh, 2020; WHO / UNICEF, 2020). Library leadership must ensure that workers regularly have things to wash their hands (before and after contact with products), access to products such as gloves and facemasks, temperature controls and hand sanitizer is available at the entrance and, where appropriate, in addition to equipment such as computers, areas. It should be ensured that pedal bins are provided for the disposal of gloves and other potentially hazardous materials. Contact reduction is facilitated by the use of automated machines. It is important to minimize the usage of toilets and to carry out effective cleaning. The storage of journals, newspapers, and books will be halted and the electronic version of these will be used before the pandemic is reported poorly.

On this basis, the safety, comfort, and health of employees are crucial in achieving the goals set for a library. No library can operate without employees. To accomplish this, hygiene measures must be strictly followed, working every day for short hours, changing work,

restricting meetings, staggering breaks, even avoiding rush hours, encouraging homework, and a personal locker or room should be allocated where possible to employees. To top it all, numerous libraries should create a policy for their employees' protection.

5.11 The Libraries' role in the reopening of institutions

As each country's governments make frantic efforts to resume, institutions libraries have roles to play, first, the greatest asset of the collection of any academic library is its special collections and archives. During the COVID-19 closure, archivists were challenged to provide research materials and resources online. Look for an increase in digitization activities in libraries in the coming years, transforming digitized material from being a storage or preview tool to being the collection's primary access point. Second, libraries will need to implement innovative tactics to negotiate better terms with publishers and push for greater access to digital media and eBooks that are more abundant and open to users than libraries are. Third, when courses go online, students will want greater access to materials to use in their classes. Librarians must provide more copyright education, as well as allow writers to use creative commons licenses and advocate for more inclusive copyright laws (Cox, 2020). Fourth, libraries have always been a reliable source of data. For multiple reasons, many are revising their websites and scaling up their social media: getting in more users and broadcasting the message of their diverse, digitally accessible holdings; sharing timely, reliable, curated content; and offering up-to-date public-service information on local activities and issues such as community services, public advisories, health directives and applications (Fallows, 2020). Fifth, Libraries are expected to support online teaching, research, and continuous learning and development. Sixth, efforts must be to towards working with fewer resources available within their capacity. Seventh, they should try to providing round-the-clock Wi-Fi access and hotspots (during and after working hours. Lastly, libraries should purchase 3D printers and should deploy to the end-users for use in their academic and research activities.

5.12 Recommendations and guidelines for Public Health and Well-being.

This paper has highlighted the potential recommendations for public health and the well-being of all library stakeholders during and after the pandemic. The emphasis here is on ensuring that the recommendations are followed. Adequate penalties for wrongdoing must be strictly enforced. Throughout the pandemic, constant awareness of the pandemic must be practiced. All stakeholders must bear the costs of necessary palliative measures to mitigate the effects of the pandemic, because people are unable to perform their daily tasks that will ensure their survival during this time.

6. CONCLUSION

No doubt the global SARS-CoV-2 pandemic has destabilized many countries of the world. The library is one of the affected entities. Most of the countries shut down the libraries, while the countries are not directly affected prepared towards any eventuality. During the global problem libraries resulted in virtual operations, face to face operation was reduced or canceled because many staff died and few that were infected could not perform any meaningful activity. To this end, the use of digital phone meetings, internet, zoom meetings, and others. To function well different approaches were employed by different libraries. Again, to forestall untimely death or sickness, staying safe at home and work, safe handling of materials, social distancing and delivery services, hand washing, sanitizing, and temperature measurements, and other

precautions were observed. Now, that the pandemic is reduced and solutions are coming in, some libraries are warming up for re-opening. The way forward to forestall future occurrences in the libraries, efforts should be geared towards digital/virtual operations, the present guidelines of safety precautions should be followed, and collaborative efforts should be encouraged where necessary.

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