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## **Promoting Library Services through ICT among the Medical Professionals during COVID-19 Pandemic situation with special reference to the medical colleges in Assam**

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### **Abstract**

During this critical period in the world, the role of medical librarian in medical institutions is very crucial. With the help of ICT, the medical librarian can provide the library service for the medical fraternity to keep abreast along with the ongoing COVID- 19 pandemic situation. Library services should be provided through online by maintaining social distance for the library users. The role of ICT and medical librarian both are dependent for delivering the regular library services among the medical users community. Use of e-resources should be available easily among the medical library users for latest and recent information. Social Networking Sites (SNS) or Social Networking Platforms have been providing the great role in spreading the mass information among the community during the global crisis period. In the medical colleges of Assam also e-resources are distributed among the library users by providing the latest information of biomedical science.

**Keywords:** Library services, Medical professional, COVID-19, ICT & Medical College-Assam, E- resources, Social Networking Sites

### **Introduction**

In the 21<sup>st</sup> century, the world is under lockdown due to pandemic situation of COVID-19. This deadly virus was identified in December 2019 at Wuhan city, China. But gradually this virus has been spreading globally more or less in the different places of the entire world. In India this virus was 1<sup>st</sup> identified in Kerala on 30<sup>th</sup> January, 2020. Day by day it has been increasing at very fast speed among the people and for that World Health Organization (WHO) has decided that lockdown will be the best way to maintain the social distance so that this deadly virus may not spread among the community. In North East Region 1<sup>st</sup> COVID-19 positive case was found in Manipur on 24<sup>th</sup> March, 2020. In Assam on 18<sup>th</sup> April, some people were detected by COVID-19 positive case with the contact of mass gathering people in Tablighi Jammats at Nizamuddin Markaz Mosque at New Delhi. The Prime Minister of India has also declared the 1<sup>st</sup> lockdown nationwide from 25<sup>th</sup> March to 14<sup>th</sup> April. And further, this lockdown has been extended by phase wise up to 31<sup>st</sup> May 2020. Though the virus has been spreading among the people yet Govt of India (GOI) has declared unlock from 1<sup>st</sup> June 2020 and implemented guidelines for the entire community of the nation.

The researchers and scientists are busy for developing the vaccine for preventing this deadly virus spreading among the community. Mass gathering is not allowed in the public place. All kind of educational institutions i.e. schools, colleges and universities are totally closed. But the medical institutions have been providing the emergency services among the community. Medical professionals have been working with courage & responsibility during this COVID- 19 pandemic period and name as “COVID Warriors”.

Digital library can bring the transformation in distributing the huge collection of e-resources among the community. ICT is the most potential factor in contributing the electronic information during this lockdown period. With the help of different types of digital media, latest information as well as regular library services should be provided towards the user community of medical institutions. Both ICT and medical librarianship is dependent for fulfilling the users need and demands of medical fraternity during this emergency period.

Medical institutions are the most essential and emergency institutions for providing the medical services. All the medical professionals are busy for saving the people's life in the entire world. Responsibility of medical librarian during this crisis period is very perceptible. For providing up-to-date information relating to corona virus and other medical diagnosis, the librarian needs to provide the information for the medical professionals through digital mode. Due to mass gathering the library can't provide the services physically but the medical librarian must need to deliver the library services to its regular users through digital mode. Printed resources can't be circulated among the library

members due to shut down of the library. But e-resources must be provided among their institutions members with the remote access facility.

### **Scope and method**

In this paper, only the role of medical librarian in delivering the library services during pandemic situation has been described. The authors have discussed about the promoting of library services with the help of ICT by the medical librarian during this crisis situation. By searching the multiple literatures related to the present crisis period, the authors have described that medical library have been extensively providing the library services to the medical communities with the help of latest emerging ICT tools and techniques. The scope of the present paper is limited for the medical professionals specially those who are continuously serving in the medical institutions. Here also the authors have discussed about the role of librarians of medical library in Assam.

This paper is theoretical based and descriptive type only but the authors have highly emphasised that by using different ICT tools and techniques, the medical library have been providing the services through online mode during this pandemic period. The librarian has been delivering all the library services to the medical fraternity by using all the online tools and techniques.

### **Objectives**

The objectives are as follows;

1. To explore the function of medical librarian for providing the library services during this pandemic situation.
2. To discuss about the publisher's initiative among the medical libraries during the crisis period.
3. To find out the influence of Social Networking Sites (SNS) in providing the library services.
4. To make aware about the ICT tools and e-learning platforms for promoting the library services.
5. To explore the important e-resources of biomedical sciences for free distribution among the medical users.
6. To know about the responsibility of librarian for the post COVID situation in the libraries of medical colleges.

### **Literature review**

**Ali, Y. & Gatiti, P. (2020)**, the COVID-19 pandemic situation in Pakistan as well as the author has also highlighted the role of librarian in the educational institutions. The librarian should provide the library services through digital mode along with the traditional library services for the facilitation of users in the schools, colleges, universities & other academic institutions.

**Li, H. O. and et al. (2020)** has described about the role of social media in distributing the public health information amidst the society. YouTube is the most powerful social networking platform by which someone may get the most useful information as well as fake information. During survey by the authors it was clear that during this pandemic situation, YouTube has provided the most useful information at very fast speed towards the community.

**McNamara, S. (2020)** in the research paper has elaborated about the delivery of library services in the coming years. The author also has described about the role of CILIP in providing the information services among the health sector institutions in Scotland.

### **Medical colleges in Assam: a brief profile**

Medical colleges are the most essential and responsible institution which has been providing the mankind services to the entire world. During this present situation the medical professionals have been providing their selfishness and tireless services to save the life of the people of this society from the deadly Corona virus. A lot of biomedical scientist, researcher & medical professionals have been trying to invent the vaccination for preventing the community spread of this Corona virus.

Assam in North Eastern State of India is known as land of the red river and blue hills which is full of beautiful greenery landscape. Medical colleges in Assam are under the control of Director of Medical Education (DME) Department, Govt of Assam. First medical education in

Assam state was started during pre-independence period in 1900. The medical education in Assam was started by Sir John White Berry, a philanthropist and established the “Berry White Medical School” in Dibrugarh district. This was the first medical college in Assam and later this medical school was renamed as Assam Medical College in 1947. After that Gauhati Medical College & Hospital (1960), Silchar Medical College & Hospital (1968) was established for providing the medical services widely. After almost 40 years, the Health & Family Welfare Department, Govt. of Assam has decided to establish more medical colleges in the different districts of Assam to provide standard medical education and services among the society. Finally, Jorhat Medical College & Hospital (2009), Fakhruddin Ali Ahmed Medical College (2011), Tezpur Medical College & Hospital (2014), Assam Hills Medical College & Research Institute (2019) was established by Govt of Assam. All the medical colleges are running under Srimanta Sankardeva University of Health Sciences (SSUHS), Assam. And these medical colleges are recognised by Medical Council of India (MCI).

Along with these allopathic medical colleges there are also Ayurvedic, homeopathic, paramedical, nursing, dental, pharmacy institute & research centre also established for providing the allied health science education. Govt. Ayurvedic College & Hospital, Regional Institute for Cancer Treatment and Research, Lokopriya Gopinath Bordoloi Regional Institute of Mental Health, Regional Dental College & Regional College of Nursing, & Regional Medical Research Centre etc, has also been providing the services for the society.

For running the standard and quality based education in medical science college, all the medical professionals should be dependent in the medical libraries. A medical library has a great contribution in distributing the latest and current information related to academic curriculum, patient care treatment, telemedicine, evidence based medicine and research etc.

The libraries of medical colleges in Assam also have been providing the traditional services as well as ICT based services for the user community of respective institutions. As the medical users are very busy due to hectic schedule both in clinical and nonclinical section and for that the medical libraries have been providing the e-resources facility also through on and off campus of the colleges to keep up to date about the latest biomedical fields. In this pandemic situation the role of medical libraries and the library professionals are praiseworthy for their contribution to the library users.

### **Function of the medical librarian**

Time is the most valuable resources for each and every person. Though everything is forced to shut down, yet we can't wait that when good time will come and we will do our duty again. But we can hope for the best and positive atmosphere in coming days. Even in this dreadful situation also we the library professionals should be responsive for distributing the valid and needed information for the benefit of the community. The librarian of the medical institutions is the pathfinder for providing the latest and current information among the health professionals regarding the latest topic COVID-19. Clinicians and other allied health workers are busy with their duty in the hospital and laboratory by 24\*7. Due to lack of time of these frontline workers in the medical institutions, the librarian may help them in providing the information very easily. The medical librarian in Assam state has been providing the library services at optimum level.

- The librarian may deliver their services through online facility for the bonafide library users.
- The librarian can send the e-resources by remote access facility among the users like clinicians, students, faculty members and doctors.
- By collecting the e-mails and phone numbers the librarian may send the journal articles about the current topics.
- Various websites and links of open access journals (OAJ) may be sent to the users through mail or in WhatsApp group. These multiple OAJ link may be uploaded in the institutions website also.
- Public awareness topic can be uploaded in the library website or the college website.
- Evidence based clinical information is very highly demandable during this COVID-19 crisis time.
- The librarian can provide the library orientation program for the newly registered users through webinar. At the same time the librarian may make the video of library section and short introduction and may upload through YouTube. This video can be uploaded in the institutions websites also.

### **Medical librarian & publishers programme**

For the present situation, different publishers have taken the initiative for delivering their resources among the medical professionals. The publishers may discuss with the library personnel in the respective medical institutions so that users may be benefited. Reputed publishers like Wolters Kluwer, Theime, LWW, Elsevier, John-Wiley, OUP, CUP and BMJ etc. may provide the online demonstration among the medical professional's about the evidence based medical databases, clinical databases, and e-journal packages. The publishers may offer the trial access facility for a number of days among the health professionals for the benefit of the present situation. The publisher can share the information link related to COVID-19 like articles, research reports, feedback, comments, case study etc among the medical institutions faculty members, clinicians, paramedical staff, researchers and MBBS & PG students etc.

During this time medical colleges in Assam has also arranged the demonstration program regarding the accessibility of online medical databases, e-journals and e-books with the help of mobile app facility for the respective institutions members. Some of the medical databases have been providing in trial version for the pandemic situation among the medical students, doctors and faculty members in the medical colleges in Assam. The trial versions of the online medical databases which have been providing by the publishers are given in below;

- Up To Date: Evidence based Clinical Support System
- Cochrane Library
- DynaMed
- LWW Health Library
- Wiley Online Library

### **Influence of SNS for distribution the library services:**

ICT has been contributing the good environment in distributing current information about the pandemic situation of the entire world. With the help of internet facility all the current information is delivered among the users. For regular contacting with the users e-mail, instant messaging is highly used by the librarian. Now days social networking sites (SNS) like WhatsApp, Facebook, Twitter, LinkedIn, Messenger, Instagram, YouTube, blog etc. has been widely delivering the current information about COVID-19. Within second, all updated information can be forwarded to the millions of people. Facebook is the most powerful social platform besides other traditional media like TV, radio to deliver different information from different places regarding this pandemic condition. Both print as well as non print media are also providing all the information by which community may keep alert. World Health Organization's (WHO) WhatsApp link is the most authentic link for distributing the current information for the medical professionals. WHO also provides a WHO dashboard regarding all updated information related to COVID-19. In this dashboard, country wise information has been updated timely and regularly. By seeing this dashboard one may know how many people were infected, how many people were cured, death reports etc in different countries of the world. Some useful links are listed as follows;

- [www.unicef.org](http://www.unicef.org)
- [www.forbes.com](http://www.forbes.com)
- [www.cdc.gov](http://www.cdc.gov)
- [www.who.int](http://www.who.int)
- [www.corona.mygov.in](http://www.corona.mygov.in)
- [www.gsma.com](http://www.gsma.com)
- [www.mohfw.gov.in](http://www.mohfw.gov.in)
- [www.india.gov.in](http://www.india.gov.in)

#### **Negative effects of SNS:**

- Wrong information/Fake News is uploaded by some fellow who may mislead the users.
- Repetition of same information by using different pages in FB.
- Uploading of biased information.
- Wastages of valuable time in case of excessive use of SNS.
- Lack of trust worthiness in case of some information.
- Lack of Copyright issue and for that information may be misused by some miscreants.
- No privacy about the uploaded information as it can be seen by multiple viewers and some people can misuse the information.

### **Important ICT tools for promoting the library services:**

Though library is totally closed yet the user can't be deprived from learning and teaching. Learning and studying is the life long process for all of us. We have to keep in touch with our studying materials through digitally. With the help of ICT and emerging technologies we can learn lots of things from different sources during this pandemic situation. Different types of online tools are helpful for distributing the information sources during this pandemic situation. The librarians of the medical colleges of Assam have been organizing webinar and other

library services utility program for the respective library users with the help of online platforms during this lockdown period. Some highly used online platforms are provided as follows;

- Audio classes
- Video classes
- Zoom Classroom
- Google meet
- Go To Meeting
- Go To Webinar
- Google classroom
- Cisco WebEx
- Remote login access facility
- Web OPAC
- Blackboard
- Moodle
- Easy Class
- Cloud based library services
- Library Blogs
- Webinar
- YouTube
- Social media etc

#### **Distribution of free e-resources:**

Now day's lots of e-resources are available in the websites. Even maximum Indian journals are open access in medical science field. These free e-journals link should be delivered through mail to all the members of the respective medical institutions. The librarian may send subject wise e-journal link list to all the library members so that all the users may access from their own residence. These free e-resources are accessing by the library users from off and on campus. These e-resources list have been provided by the librarian to the respective medical college users through mail. Some important free Open Access (OA) resources links related to biomedical science are given below;

- National digital Library of India ([www.ndliitkgp.com](http://www.ndliitkgp.com))
- PubMedCentral (PMC) (<https://www.ncbi.nlm.nih.gov>)
- BioMed Central (<https://www.biomedcentral.com>)
- BMC Cell Biology (<https://bmcmolcellbiol.biomedcentral.com>)
- DOAJ Science (<https://doaj.org>)
- F1000Posters (<https://f1000research.com>)
- Nucleic Acids Research (<https://academic.oup.com/nar>)
- Public Library of Sciences (PLoS) (<https://plos.org>)
- Open Access Theses and Dissertations (OATD) (<https://oatd.org>)
- Geneva Foundations of Medical Education & Research (<https://www.gfmer.ch>)
- OMICS International (<https://www.omicsonline.org>)
- FreeMedicalJournals.com (<http://www.freemedicaljournals.com>)
- ERMED Consortium of National Medical Library, India ([www.irmed.in](http://www.irmed.in))
- OVID (<https://www.ovid.com>)
- LWW Health Library (<https://lwwhealthlibrary.com>)
- CINAHL Plus with Full Text (<https://www.ebscohost.com/nursing/products/cinahl-databases/cinahl-complete>)
- TOXNET (<https://www.hSDL.org/?abstract&did=451497>)
- Biomed Digital Libraries (<https://bio-diglib.biomedcentral.com/>)

#### **Responsibility of medical librarian for post COVID-19 situation:**

There is no stipulated time when the normal situation will be back for this society. Yet we all are hoping for a corona virus free situation and ready to welcome a normal situation. The medical librarian will be ready to set up the mind with positive attitude for providing the library services after COVID-19 period.

Some precautionary steps should be taken by the medical librarian for the safety of users and staff. Some important steps should be followed by the library users to provide the library services. Those are as follows;

- Social distancing among the staff and users must be maintained. Personal hygiene should be maintained properly

for own and others safety.

- Use of face mask, face shield and hand gloves is very essential for entering the library as well as all the visitors of the library should sanitize their hands before entering the library. Sanitizer and water must be kept near the entrance door of the library.
- User may read their books within the library by maintaining the distance among their friends/colleagues. Mass gathering should be prohibited in the library at the same time.
- User may borrow their required books for reading in their home or hostel for long period. E-resources should be circulated among the users at optimum level. Online renew system should be necessary for the borrowers during this period.
- This will be better to provide the close access facility more than open access facility for the library users. There will be heavy chance of mass gathering if the libraries open access facility. For distance maintaining among the users and staff close access library facility will be helpful.
- There is need of maximum e-resources for the library users. Online delivery of information resources much be needed after lockdown period also.
- After receiving the books from the borrowers, those particular books should be kept separately at least for 3 days on the extra table or basket in dry and sunlight areas if possible. If needed some disinfect spray should be used lightly on the surface of the books.
- Some of the extremely touched areas inside the library should be frequently cleaned daily. The floor and corridor of the library should be mopped with some disinfect liquid solution like hydrogen peroxide, bleaching mix liquid etc. Computers in the internet section should be cleaned repeatedly.

### Conclusion

The present situation in the whole world is very vulnerable due to unexpected pandemic situation for COVID-19. Yet we can't stay by stopping our regular activities as time and tide wait for none. We have to learn to survive along with this situation by following some medical and governmental guidelines. Medical professionals are required to keep themselves up to date during this period for the latest development of new emerging corona virus vaccines, clinical trials, research and other additional parts of medical science field. ICT is the leading factor for providing the online services now days during this social distancing situation. As a medical librarian we may urge for providing the e-services for the benefit of the users. E-learning system should be implemented for the medical students by the faculty members with the help of SWAYAM, MOOC etc. The librarian should provide the maximum free e-resources and online services to the users. ICT is the most controlling factor for the ongoing activities during this situation. And the medical librarian has the most essential role in providing the fastest services among the medical professionals by the help of latest emerging technologies and ICT. It is remarkable that the librarian of medical colleges in Assam has been contributing their effortless services for the medical community.

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