

## Lessons learned from Clinical Librarian in the pandemic of COVID-19: experience report of the Study Center of Hospital “Felício Rocho”

Lecciones aprendidas por el bibliotecario clínico en la pandemia de COVID-19: relato de experiencia del Centro de Estudios del Hospital “Felício Rocho”

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### ABSTRACT

This paper aims to report the experience of the Clinical Librarian in preparation and response to the pandemic of COVID-19, in the Hospital Library of the Study Center of Hospital “Felício Rocho”, in Belo Horizonte, Minas Gerais, Brazil. This is a qualitative and descriptive research that approaches the role of the Clinical Librarian in the context of the Hospital Library in the Brazilian scenario. For this, the Library is described, the services offered to the medical team, the opportunities and challenges of the Clinical Librarian, the need for training and the partnership with the front-line medical team of COVID-19. The Clinical Librarian played an important role in supporting decision making in facing the pandemic of COVID-19. Thus, the experience report seeks a contribution to Information Science in facing a pandemic and lessons learned from Clinical Librarian.

**Keywords:** clinical medical librarian; COVID-19; hospital library; case study, Brazil.

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## RESUMEN

Este artículo tiene como objetivo relatar la experiencia del bibliotecario clínico en la preparación y respuesta a la pandemia de COVID-19 en la Biblioteca Hospitalaria del Centro de Estudios del Hospital “Felicio Rocho” en Belo Horizonte, Minas Gerais, Brasil. Se trata de una investigación cualitativa y descriptiva que aborda el papel del bibliotecario clínico en el contexto de la biblioteca hospitalaria brasileña. Para ello se describen la biblioteca, los servicios que ofrece al equipo médico, las oportunidades y desafíos del bibliotecario clínico, la necesidad de capacitación y la alianza con el equipo médico en la primera línea de la COVID-19. El bibliotecario clínico desempeñó un papel importante en el apoyo a la toma de decisiones frente a la pandemia de la COVID-19. Así, el relato de experiencia busca un aporte a las Ciencias de la Información frente a una pandemia y las lecciones aprendidas por este profesional.

**Palabras clave:** bibliotecario clínico; COVID-19; biblioteca hospitalaria; estudio de caso; Brasil.

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## Introduction

The medical field has long demanded health information products and services to provide better patient care. In 1971, American Gertrude Lamb created the first Clinical Medical Librarian (CML) at the University of Missouri-Kansas City School of Medicine (UMKC), when she identified a gap between health information and medical training to meet the information needs identified during medical rounds.<sup>(1)</sup> The formation of the CLM aimed to retrieve and access the knowledge and knowledge records of medicine and provide the information needed for the patient’s care.<sup>(2)</sup>

In Brazil, the concept of Clinical Medical Librarian (CML), advocated by Lamb, is still little widespread, translated into Portuguese as Clinical Librarian, and this professional is also known by several nomenclatures such as Health Librarian, Health Sciences Librarian, Health Information Professional, Clinical Librarian and Medical Librarian, among others.<sup>(3)</sup> *Galvão* and *Leite*<sup>(4)</sup> clarify the differences between some of these terms. In general, the Clinical Librarian refers to the professional who works with the medical team, providing information for patient care, and the Medical Librarian refers to the professional who works in the treatment of medical information in specialized or university libraries.<sup>(4)</sup> In Brazil, disciplines for the Librarian formation, focused on health resources, are scarce in the graduation curricula of Librarianship and Information Science (Library and Information Science, LIS) schools.<sup>(5)</sup> Thus, the concept of Clinical Medical Librarian still needs to be better discussed in the Brazilian scenario.<sup>(3)</sup> In this article, the term "Clinical Librarian" is adopted, because it is an experience report of the professional who works in the hospital context, with the medical team, according to the concept of *Galvão* and *Leite*.<sup>(4)</sup>

On March 11, 2020, the World Health Organization (WHO) declared a pandemic of a new infectious disease, the Coronavirus 2019 (COVID-19).<sup>(6)</sup> The year 2020 was a time when the role of the Clinical Librarian, in the hospital setting, gained prominence due to the informational support provided to the medical team in facing COVID-19.<sup>(7)</sup> Librarians have become essential members of the health care team, providing literature searches on COVID-19 and sharing relevant references and resources.<sup>(6)</sup> Being an information professional, the Clinical Librarian is also a curator of reliable and accurate information channels.<sup>(8)</sup> *Fernández Valdés* and *Alfonso Sánchez*<sup>(9)</sup> state that in confronting COVID-19, information professionals must "Integrate into multidisciplinary collaborative groups, assuming the participatory and collective construction model, and make contributions from the knowledge of information science, communication and the generation of information and knowledge". The moment of the pandemic of COVID-19 demanded from the Clinical Librarian, constant training, and contributions from the knowledge of Information Sciences.<sup>(9)</sup> Thus, this research aims to present how this training of the Clinical Librarian took place and its contribution to the confrontation of COVID-19 in a Private Hospital Library. The objective is to report the Clinical Librarian's experience in preparing and responding to the pandemic of COVID-19, in the Hospital Library of the Centro de Estudos do Hospital "Felício Rocho" (CEHFR), in Belo Horizonte, Minas Gerais, Brazil.

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## Methodology

The methodology, from the point of view of its nature, is classified as applied research, for generating knowledge for practical applications directed to the solution of specific problems in facing the COVID-19 pandemic, in the context of the CEHFR Library. From the point of view of the problem's approach, it is qualitative and descriptive research, because it inductively analyzes the data about the experience of a Clinical Librarian. From the point of view of the objective, this is exploratory research, as it seeks greater familiarity with a problem, that is, the need for information and specialized services for the health team and the necessary training for the Librarian to work in the context of the pandemic. The research also involves a bibliographic survey on how to deal with COVID-19 in the scope of the Hospital Library.<sup>(10)</sup>

## Results

This section addresses the library where the study was carried out, the library services provided during the pandemic, publications, training the Clinical Librarian for the challenges of the pandemic, opportunities and challenges and the Clinical Librarian and partnerships with the medical team.

### **Experience Report: Clinical Librarian's response to the pandemic of COVID-19**

The Hospital "Felício Rocho" (HFR) is maintained by the Felice Rosso Foundation, created by Nicola Felice Rosso, an Italian immigrant who, in 1937, through a public deed, donated part of his assets for the creation of a Foundation, with the objective of "a) create, maintain and fund hospital services in Belo Horizonte[...] b) practice any charitable acts, not consigned in these statutes[...]". From the laying of the foundation stone of the Hospital building, in 1937, until its inauguration, in 1952, 15 years of struggles and efforts of Américo Gasparini and several friends of Felice Rosso, who died in 1937, without seeing his wish come true.<sup>(11)</sup>

Since its inauguration, the Hospital had a clinical staff formed by the best and most competent professionals in the city. It became a national reference in several medical

specialties. The 12 specialties offered in 1952 became 45 Clinics, Services and Specialties.<sup>(7)</sup> Currently, the HFR has an extensive clinical staff, which operates in more than 35 medical specialties (a Transplant Unit, where it performs heart, kidney, pancreas, kidney-pancreas, corneas and liver transplants).<sup>(11)</sup> It has a structure to meet any clinical and surgical emergencies of high complexity. The mission of the HFR is "Caring for people, seeking quality of life".<sup>(12)</sup>

The "Felício Rocho" Hospital Study Center (CEHFR), which houses the Hospital Library, is located in the Felice Rosso Foundation building that houses the HFR and the Health Sciences Center. The CEHFR, created in 1975, is a non-profit association, of scientific, ethical, and cultural character. Its mission is the "promotion of actions directed to the increase of teaching in the health area, contributing to the development of professionals in this area to meet social, educational and cultural demands that aim to improve their field of work and service delivery to the Brazilian citizen".<sup>(13)</sup> The CEHFR's Hospital Library has a specialized collection of books and periodicals in the health area, an institutional repository that gathers and divulges the scientific production of the clinical staff, specialization and residency. The cataloging used in the Library is the National Library of Medicine Classification (NLM), and the controlled vocabulary the "DeCS" created by the Latin American and Caribbean Center on Health Sciences Information, also known by its original name Regional Library of Medicine (BIREME). BIREME is a specialized center of the Pan American Health Organization / World Health Organization (PAHO/WHO), oriented to technical cooperation in health scientific information located in São Paulo, Brazil.<sup>(a)</sup> DeCS - Health Sciences Descriptors is a structured multilingual vocabulary used in the indexation of scientific journal articles, books, congress proceedings, technical reports, and other types of materials, and the search and retrieval of subjects in scientific literature through the information sources available in the Virtual Health Library (VHL), such as LILACS, MEDLINE, and others. It was developed from the MeSH - Medical Subject Headings of the U.S. National Library of Medicine (NLM).<sup>(14)</sup> The Hospital Library has computers with internet access available for studies, research and editing videos of surgeries.

While libraries closed during the COVID-19 pandemic due to the need for social distancing, hospital libraries continued their services to assist in coping with COVID-19.<sup>(15)</sup> The hospital library was also a refuge for hospital staff working on the front lines.<sup>(16)</sup> The Clinical Librarian played an important role in the search for the best scientific evidence in patient care. In the face of the COVID-19 pandemic, it was necessary to reorganize the operation

of the CEHFR Hospital Library. Therefore, in early April 2020, its services were interrupted for 15 days, resuming its activities at the end of the same month. For the reopening, it was necessary to follow the precautions established by the Hospital Infection Control Service (SCIH) of the Hospital “Felício Rocho”, based on the recommendations of the World Health Organization (WHO) and the Brazilian Ministry of Health. The employees of the Library started to wear masks, for the face-to-face care, and the daily cleaning of the Library was performed, for the use of the physicians working in the hospital in the front line of COVID-19 and other diseases.<sup>(17)</sup>

### Services Provided

In the face of the COVID-19 pandemic, Hospital Library services continued to be offered to medical staff in a face-to-face manner, remotely, or by telephone.<sup>(17)</sup> Some of these services are highlighted in chart 1:

**Chart 1** - Services provided to medical staff during the pandemic of COVID-19

Activity	Description	Who Conducted	Service/Availability
Support in the realization of scientific events.	Doctors held lectures and online events	Events Coordinator	e-mail videoconference
Subscription of a platform for videoconference.	Zoom platform for clinical case discussions and medical team meetings.	CEHFR	online videoconference
Institutional subscription to Evidence-Based Medicine to aid health care decision making.	Up-to-date®. It was made available the registration of password and logins to access Up-to-date anywhere®.	CEHFR	online
Meeting the demands of bibliographic survey with research in national and international databases.	Performing literature reviews in databases for scientific papers and to support Evidence-Based Medicine.	Clinical Librarian	e-mail phone in person
Actively searching for articles and submitting them by emails (helps clients find full-text articles).	The clinical staff requests scientific articles by e-mail and the library staff searches	Clinical Librarian and Library Assistant	e-mail

	the collection or makes acquisitions through Bibliographic Commutation.		
Selective Dissemination of Information.	Sending current summaries of important journals from each medical specialty about COVID-19.	Clinical Librarian and Library Assistant	e-mail
ABNT and Vancouver Standards Orientation; (provided scientific editing services).	Support the medical staff in formatting scientific papers for publication.	Clinical Librarian	e-mail phone in person videoconference
Guidance to the medical staff in the elaboration of research projects and submission to the Research Ethics Committee (CEP).	Support the medical team in the necessary steps for the preparation of research projects and submission to the Brazilian system of ethical review: Platform Brazil/ CEP/CONEP System	Clinical Librarian	e-mail phone in person videoconference
Scientific Production research on COVID-19.	Elaboration of research projects, submission to CEP, participation in the writing of articles and submission to scientific journals.	Clinical Librarian	e-mail phone in person videoconference
Database training, health information sources: medical and multi professional staff.	Training on specific themes in database research and training on the information resources made available by the library	Clinical Librarian	videoconference
Assistance in developing methodology, sample calculation and database in academic research projects.	Continued provision of advice on academic research projects to physicians	Statistics	e-mail videoconference

Note: ABNT =Associação Brasileira de Normas Técnicas.

Source: Library data, based on Souza and others<sup>(17)</sup> and Souza and others.<sup>(18)</sup>

Among these services, we highlight the support to the medical team in the elaboration of research projects and submission to the Research Ethics Committee (REC), due to the importance of evaluating the clinical studies on the therapeutic possibilities of COVID-19

performed in the Hospital and the need to develop academic research by the clinical staff (chart 1).

### **Training the clinical librarian for the challenges of the pandemic**

To ensure the operation of the Library with information and training for the medical staff, the Clinical Librarian needed to become qualified, attend training, attend lectures and learn about COVID-19.<sup>(8)</sup> At CEHFR, the Clinical Librarian attended lectures promoted by EBSCO® and several other institutions, courses on library resources and services, attended courses on PICO (Patients, Interventions, Comparisons, Outcomes) question strategy development, systematic reviews and information resources offered by Wolters Kluwer Health®, attended the COVID-19 Contact Tracing course, offered by Johns Hopkins University, frequently accessed pages of the American Library Association (ALA),<sup>(19)</sup> Medical Library Association (MLA),<sup>(20)</sup> The International Federation of Library Associations and Institutions (IFLA) that made available resources for coping with the pandemic directed to Librarians and also needed to read the daily WHO guidelines related to COVID-19.<sup>(21)</sup>

To promote the qualification of Librarians working in the health area in Brazil, the Ministry of Health, together with the Federal University of Rio Grande do Sul, offered the Improvement Course in Management, Information, Innovation and Knowledge in Health - CAPAGIIC-Health,<sup>(b)</sup> which was developed to qualify the professionals from the Ministry of Health<sup>(c)</sup> and the libraries of the BiblioSUS<sup>(d)</sup> Network in the recovery and extraction of information in different media and supports, to optimize the processes related to health and to ensure quality of life for the Brazilian population. CAPAGIIC-Health was important for providing the qualification of services, integration of teams and exchange of experiences, dissemination of knowledge and expansion of the BiblioSUS network, in addition to providing the democratization, universalization and equity of access to health information.<sup>(22)</sup> During the COVID-19 pandemic, the courses were mostly offered online, free of charge and with the issuing of certificates, which enabled the training of the Clinical Librarian.



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## Publications

At the beginning of 2021, there were still few published works about practices used in the context of the pandemic of COVID-19.<sup>(8)</sup> The pandemic has been a moment of much work and learning for the Hospital Library team, and also, an opportunity to write articles about the performance of the Clinical Librarian, a professional still little known in Brazil. Therefore, some studies were published on how to face the pandemic by the Librarian of the CEHFR and other institutions. The study by *Souza* and others<sup>(18)</sup> approached the work of the Clinical Librarian in different hospitals in Belo Horizonte; the study by *Souza* and others<sup>(23)</sup> reported the information resources available to support decision making; and in *Souza* and others<sup>(17)</sup> it was described the work of the Clinical Librarian at the beginning of the pandemic, in a Private Hospital and the Health Technology Assessment (HTA).

The writing of the experiences lived in the pandemic of COVID-19 in the Hospital context in Brazil, aimed to help other Clinical Librarians and highlight the importance of this professional, so that, in the future, the Library and Information Science (LIS) Schools may offer the opportunity of specialized training in the health area in the Brazilian context.

## Opportunities and challenges

In his performance, the Clinical Librarian counted on health information, through articles offered by publishers, free of charge and online. In addition, the health area has important databases that allow literature reviews in their catalogs and offer collections in the open access form as the PubMed® PMC, the Virtual Health Library (VHL) and SciELO.<sup>(18)</sup> *Clifton* and others<sup>(8)</sup> state that the pandemic was an opportune moment for hospital and healthcare libraries to make connections and develop relationships with other departments in the dissemination of valuable information to their institutions.

Chart 2 highlights opportunities that could be realized by the Clinical Librarian in developing activities remotely and online during the COVID-19 pandemic.

**Chart 2 - Opportunities and challenges for the Clinical Librarian in the context of the COVID-19 pandemic**

Opportunities	Challenges
Assist with bibliographic standardization: ABNT, APA, Vancouver, etc.	Keep the collection up to date with the speed of publications in the Health area.
Assistance in filling out Lattes resume, ORCID, professional social networks.	Reconcile user preferences between information formats in electronic and physical media.
Assist in the elaboration of academic research projects.	Acquire databases and summaries of evidence-based medicine in the face of increasing dollars.
Assist in conducting Systematic Review, Integrative Review, Scoping Review, etc.	Provide users with remote access to evidence-based medicine summaries and the Hospital Library Collection.
Conduct training on reference managers: Endnote, Mendeley, Zotero, etc.	Seeking to expand the Clinical Librarian job market in Brazil.
Perform training on health databases.	Carry out constant training in relation to health information resources.

Source: Prepared by the author based on Souza,<sup>(7)</sup> Howes and others,<sup>(24)</sup> Kazempour and others,<sup>(25)</sup> Tanus and Sánchez-Tarragó,<sup>(26)</sup> Charney, Spencer and Tao,<sup>(27)</sup> and Puga and Oliveira.<sup>(4)</sup>

It is worth noting that the medical team, which had to leave the hospital because it did not work on the front line or because it worked in surgical specialties, used this time to study and develop master's and doctoral research and, as a result, demanded the services highlighted in chart 2, such as formatting bibliographic standards, assistance in filling out online resumes and professional social networks, assistance in preparing research projects, among others.

### **The Clinical Librarian and partnerships with the medical team**

For Charney, Spencer, and Tao,<sup>(27)</sup> the collaboration developed between librarians and physicians allows for the gathering of clinical information on COVID-19 and also quick responses to the clinical information needs of frontline staff in future routine patient care and disasters. Lankes<sup>(28)</sup> states that "The mission of librarians is to improve society through facilitating knowledge creation in their communities." Thus, the Clinical Librarian plays an important role in supporting clinical research and scientific production in the hospital

setting. At “Felício Rocho” Hospital, the Clinical Librarian assists the medical team in the production of clinical and academic research, in the writing of articles and in the submission of research projects for consideration by the Research Ethics Committee and the National Research Ethics Commission (CONEP).

All research involving human subjects or data from human subjects needs to be reviewed by a research ethics committee. Medical staff often need advice on the necessary documentation and preparation of the research project for ethical review. In Brazil, the ethical evaluation of research involving human beings is performed by the system linked to the National Health Council (CNS), consisting of the National Commission on Research Ethics (CONEP) and the various Research Ethics Committees (REC) based on CNS Resolution No. 466 of 2012.<sup>(29)</sup>

At Hospital “Felício Rocho”, the Clinical Librarian participated in the preparation of studies developed with the frontline team of COVID-19 on the epidemiological profile of COVID-19-infected patients seen at the institution. At the Hospital Library of the CEHFR, the Clinical Librarian conducted a research on the need and use of Information in the COVID-19 pandemic applied to the medical team. The research was approved by the REC and the results will be published soon.

## Conclusion

Quality information is essential to health care in the face of a pandemic. Increasingly, healthcare staff demand timely, personalized information services. Amid the pandemic of COVID-19, Clinical Librarians have played an important role in the search for the best evidence for patient health care, in the decision making about the best treatment or way to solve questions related to such uncertain situations as a pandemic.

The Hospital Library of the CEHFR remained open and offered services to the multi-professional health team of the HFR in facing the pandemic of COVID-19. To do this, it was important to follow the recommendations of the WHO, the SCIH of the HFR regarding the care needed to avoid contamination of library users and employees.

The pandemic of COVID-19 was a moment of challenges, opportunities, and professional valorization of the Clinical Librarian, as he/she can help the health team with his/her specialized research skills and ability to organize information, amidst the great volume of new information. The performance in the health area, for the Clinical Librarian, is promising. This professional has an extensive and diversified range of health information sources and resources and databases available on the web.

As lessons learned in the CEHFR Library, we highlight the constant need for professional training, both about the COVID-19 disease and about the information resources needed to continue to assist Hospital Library users. The Clinical Librarian can offer information advisory services to the medical team, participate in the conduction of research in the Hospital and, also, can publish the scientific findings, after ethical approval. Thus, this experience report is important to highlight the contribution of Information Science, through the performance of the Clinical Librarian, in facing a pandemic in the Brazilian scenario.

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**Conflict of interest**

The authors declared no potential conflicts of interest.

<sup>a</sup><https://www.paho.org/pt/bireme>

<sup>b</sup><https://www.ufrgs.br/capagiic/>

<sup>c</sup>[https://www.gov.br/saude/en?set\\_language=em](https://www.gov.br/saude/en?set_language=em)

<sup>d</sup><https://bibliosus.saude.gov.br/>