

## The singularities of work in university libraries specialized in health: the reference service in debate

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### ABSTRACT

**Introduction:** the reference service in university libraries specialized in health has certain singularities due to the characteristics of the scientific field of the field of Health Sciences, the interface between teaching practices and scientific research, as well as the general profile and demands for information /reliable evidence by academics, professors/researchers and practitioners. **Objective:** to present and discuss the singularities of the reference service in university libraries specialized in health, as well as the challenges/potentialities of librarianship in this context. **Method:** The study, of theoretical character, carried out exploratory research with bibliographic research in national and international literature in the area of Librarianship/Information Science. **Results:** The results obtained indicate that the singularities of the work process in university libraries are determined not only by the idiosyncrasies of health personnel, but, above all, by the fact that human health (physical and mental) is the object of study and practice of area. **Conclusion:** It is concluded that despite the challenges related to library training in Brazil and the development of desirable and/or required skills/skills for health care, these elements do not constitute an insurmountable obstacle to professional practice with excellence. However, the librarian needs to recognize that such variables are intervening in their professional practice and that the search for improvement/specialization is a pressing demand

### KEYWORDS

Academic libraries. Information services. Reference librarians. Health Sciences.

## As singularidades do processo de trabalho nas bibliotecas universitárias especializadas em saúde: o serviço de referência em debate

### RESUMO

**Introdução:** o serviço de referência nas bibliotecas universitárias especializadas em saúde possui determinadas singularidades em razão das características do campo científico do campo das Ciências da Saúde, pela interface entre as práticas de ensino e a pesquisa científica, assim como pelo perfil geral e demandas por informação/evidências confiáveis por acadêmicos, docentes/pesquisadores e profissionais. **Objetivo:** apresentar e discutir as singularidades do serviço de referência nas bibliotecas universitárias especializadas em saúde, assim como os desafios/potencialidades da atuação bibliotecária nesse contexto. **Método:** O estudo, de caráter teórico, realizou pesquisa exploratória com pesquisa bibliográfica na literatura nacional e internacional da área

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de Biblioteconomia/Ciência da Informação. **Resultados:** Os resultados obtidos sinalizam que as singularidades do processo de trabalho nas bibliotecas universitárias são determinadas não apenas pelas idiosincrasias do pessoal da saúde, mas, sobretudo, pelo fato de a saúde humana (física e mental) ser o objeto de estudo e prática da área. **Conclusão:** Conclui-se que apesar dos desafios relacionados à formação bibliotecária no Brasil e do próprio desenvolvimento de competências/habilidades desejáveis e/ou requisitadas para atuação em saúde, tais elementos não se constituem como um óbice intransponível para a prática profissional com excelência. No entanto, o bibliotecário precisa reconhecer que tais variáveis são intervenientes em sua prática profissional e que a busca por aperfeiçoamento/especialização é uma demanda premente.

#### PALAVRAS-CHAVE

Bibliotecas universitárias. Serviços de informação. Bibliotecários de referência. Ciências da Saúde.

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## 1 INTRODUCTION

There is no unanimity in the literature regarding the exact period when the reference service, named as such or not, started to be offered in libraries, regardless of its typology. On the other hand, there is relative consensus that the first allusion to this service occurred in 1876, on

the 1st Conference of the American Library Association (ALA), when librarian Samuel Swett Green published a paper on the importance of helping readers to use the library (FIGUEIREDO, 1974). It is believed that "[...] until then, there was the collection of books and fundamentally the public came just to use it. Then it was realized that the public needed orientation to make use of the collection. From then on, it evolved into an immediate response to a query" (FIGUEIREDO, 1974, p. 176).

Despite such theoretical indications, it is no exaggeration to state that the essence of reference service is implicit in the professional expertise of librarians, despite the traditional dichotomy between technical activities and customer service/user education. The conformation of a library with a physical collection implies the development of initiatives for its access and use. It does not seem feasible or reasonable the idea that the public attending the library to use the physical collection was conducted without any kind of support/aid/guidance until the end of the 19th century, when the 1st ALA Congress took place. The authors who analyzed the historical development of books and libraries corroborate this perspective by highlighting the actions taken by librarians to enable the use of collections (BAÉZ, 2006; SCHWARCZ; AZEVEDO; COSTA, 2002).

In any case, it is worth mentioning the important considerations about the functions of the reference service presented by Samuel Swett Green in that article, applicable even today: "[...] instruct the user on how to use the library, answer their questions, help them select library resources, promote the library in the community" (CUNHA; CAVALCANTI, 2008, p. 334). Nowadays, the notion of reference in the literature of Librarianship and Information Science has at least three meanings: sector, service, and process. As a sector, reference is responsible for meeting the informational demands presented by library users, as well as the place where reference or local reference works are stored (CUNHA; CAVALCANTI, 2008). As a service, reference refers to "[...] the personal assistance provided by the librarian to users in search of information" (SANTIN, 2020, p. 18). In the sense of process, the term reference is more used for didactic purposes and aims to present the steps that are usually taken by the librarian to meet the informational demands presented to him/her (ACCART, 2012; GROGAN, 1995; SANTIN, 2020).

Whatever the meaning used to apprehend the meaning of reference, one aspect runs through all of them, and it is clear: reference is a process of mediating information (ANTUNES, 2006). For this reason, according to Santin (2020, p. 15), "[...] the reference and user services occupy a central place in the units and information services nowadays". This is, in general, a concrete reality for university libraries specialized in health. "[...] health professionals form a group with very particular characteristics in terms of informational needs and information-seeking behavior" (TALIM; CENDÓN; TALIM, 2018, p. 187). This reality requires health librarians to offer personalized services, which implies complementary training in health, i.e., the development of competencies and skills both technical (management of information and/or for health) and non-technical (cognitive, social, and personal) (CIOL; BERAQUET, 2009). Despite the importance of reference librarians in higher education institutions (HEI), the Brazilian literature in Information Science lacks theoretical reflections in this regard, especially those who work in specialized contexts such as health.

This article aims to present and discuss the singularities of the reference service in university libraries specialized in health and aims to point out the challenges/potentialities of librarianship in this context. The study has a theoretical nature, based on the literature available on the subject.

For this reason, the article is structured in three blocks: the first one highlights the importance of scientific information/evidence in health; the second one approaches librarianship training and performance in health in Brazil; and the third one takes as a starting point the theoretical-conceptual notes of reference service and then highlights the singularities of the reference service and the librarians' work process in university libraries specialized in health.

## 2 THE ECOSYSTEM OF SCIENTIFIC EVIDENCE IN HEALTH

Health Sciences have human health itself (physical and psychological) as a practical-theoretical object (ALMEIDA FILHO, 2000; FOUCAULT, 1977). In Brazil, the field of Health Sciences is composed of the following areas: Medicine, Dentistry, Pharmacy, Nursing, Nutrition, Collective Health, Speech Therapy, Physiotherapy, Occupational Therapy, and Physical Education (National Council for Scientific and Technological Development, 2019).

The incorporation of scientific evidence into health practices is a historical process that culminated in the development of the notion of evidence-based health (EBS). This movement, which had its origins in the late 20th century in the field of medicine, advocates the application of the best available scientific knowledge in clinical practice (SACKETT; ROSENBERG, 1995).

The SBE movement resulted in a paradigmatic change in health care, since it started to recommend, in the professional's decision making, the integration between his/her clinical experience with the patient's values and the main evidence available in the literature (SACKETT; ROSENBERG, 1995). Thus, in the health context, information/evidence is an essential resource to support and qualify the processes of teaching, research, health care, policy formulation, management of health systems/services, technology assessment, etc. (BIRUEL; PINTO; ABDALA, 2017; WORLD HEALTH ORGANIZATION, 2022).

There is consensus in the field of health sciences that accessing and using the main evidence available in the literature can result in improving the effectiveness, efficiency, and equity of health policies and interventions (SWAMINATHAN, 2022). Given the importance of scientific knowledge in health, a true ecosystem of evidence has been developed to support and qualify practices in this field of knowledge.

Stewart developed the notion of evidence ecosystem et al. (2019, p. 2-3) and can be conceptualized as "[...] a system that reflects the formal and informal linkages and interactions among different actors (and their capabilities and resources) involved in the production, translation, and use of evidence." According to the World Health Organization (2022, p. 9) the evidence ecosystem "[...] can be thought of as the overlap between two distinct systems; that is, the research system and the evidence support system. The former is focused on all types of research, including biomedical and theoretical research."

Thus, the evidence support system "[...] is focused on all types of activities that harness the evidence resulting from this research activity to support decision making by government policy makers, organizational leaders, practitioners, and citizens" (WORLD HEALTH ORGANIZATION, 2022, p. 9).

The process of working with evidence is composed of two distinct components: a) evidence creation: "[...] represented as a funnel, moving from an overwhelming number of primary studies or data of varying quality to a more concise, clear, and easy-to-use package of research evidence," such as guidelines, recommendations, evidence summaries, health technology assessments, etc. (WORLD HEALTH ORGANIZATION, 2022, p. 9); b) application of evidence: "[...] represented through the policy/action cycle, outlining the steps necessary for evidence to be applied in policy or practice" (WORLD HEALTH ORGANIZATION, 2022, p. 9).

Thus, evidence-informed decision making emphasizes that

Decisions should be informed by the best available research evidence, as well as other factors such as context, public opinion, equity, feasibility of implementation, accessibility, sustainability, and acceptability to stakeholders. It is a systematic and transparent approach that applies structured and replicable methods to identify, evaluate and make use of evidence in all decision-making processes, including for implementation (WORLD HEALTH ORGANIZATION, 2022, p. 9).

Although the use of evidence does not guarantee more favorable results, it significantly increases the chances of success (CIOL; BERAQUET, 2009) and the measurement of efficacy, effectiveness, and efficiency (or at least the risks compared to the potential benefits). However, it should be considered that although the activity of scientific research produces information and evidence to support research, teaching, and health practices (whether clinical, management, for policy formulation, technology assessment, etc.), when considering the quality attributes of the studies produced, there are great differences.

In the health area, "[...] what characterizes the quality of knowledge is degree of confidence (level of evidence) that can be attributed to its results and conclusions" (BIRUEL; PINTO; ABDALA, 2017, our translation). In turn, "the quality of the investigation of knowledge generated by it is related to the methodology adopted and how well it was applied" (BIRUEL; PINTO; ABDALA, 2017, our translation). That is, not all information has the same degree of reliability, that is, level of evidence (BIRUEL; PINTO; ABDALA, 2017). The expression level of evidence, therefore, "[...] refers to the degree of confidence in the information, based on the study design" (GREENHALGH, 2013, p. 36). That is, "[...] it represents the confidence in the information used in support of a particular recommendation" (BRAZIL, 2014, p. 19). | 5

In this context, HEIs play a key role in the production of scientific evidence and in the basic and continuing education of health professionals. In turn, libraries and, especially reference librarians, assume a central role by linking the educational mission of the institution with scientific research that end up subsidizing the practices and research in health (ANTUNES, 2007).

### 3 LIBRARIAN FORMATION AND PERFORMANCE IN HEALTH IN BRAZIL

In Brazil, the possibilities of librarianship in Health Sciences are multiple, but the HEI libraries, popularly known as university libraries, gather most of the professionals who work in this field of knowledge (CIOL; BERAQUET, 2009; SOUZA, 2018). The librarian performance in this context, especially for professionals who work in the activities and services of public attendance, is doubly challenging: first, because it is a library inserted in the context of higher education (marked by advances, setbacks, contradictions and crises) (CUNHA; DIÓGENES, 2016); second, by the complexity of the scientific field of health and the practices of physical and mental health care. For this reason, before discussing the specificities of the reference service in university libraries specialized in health, it is appropriate to initially recover the guiding elements of the academic and professional training of Brazilian librarians.

The social function of the librarian, as a professional who historically deals with the treatment, organization, search, and dissemination of information in different media, media and supports, is demarcated by the contributions that may come from his professional performance. In the Brazilian scenario, whose profession was regulated on June 30th, 1962, through Law No. 4.084, it is required for its exercise a bachelor's degree in Librarianship (BRASIL, 1962).

The guidelines which guide the educational formation of Library Science students in Brazil favor the following professional profile: able, from the technical point of view, to act in several areas, spaces, and contexts. The analysis of the curricula of undergraduate courses in

Librarianship evidences such concern and predilection (SILVEIRA, 2007). In this same perspective, Pinto and Iochida (2007) point out that

The undergraduate course in Librarianship in Brazil trains a generalist professional, able to deal with information in several areas of knowledge, without the objective of attending specialized areas. The option in this case is the continuing education, which has as one of its functions to provide adequate training to the professional with interest in specific areas or attributions at first, in *lato sensu* post-graduation or improvement programs (PINTO; IOCHIDA, 2007, p. 1).

If, on the one hand, the librarian profile resulting from this process can increase the chances of employability, on the other hand, it is known that there may be a gap between the skills required to work in specialized settings (such as in the area of health sciences), and those traditionally obtained in the process of academic-vocational training.

Besides the technical dimension of the librarian, the educational process must enable "[...] contents that favor a deeper discussion of the impacts generated by access or lack of access to information, as well as the critical interpretation of what should be the participation of libraries and librarians in the social construction of the Brazilian reality" (SILVEIRA, 2007, p. 203). However, it is observed that the "technicist" educational model of training in Brazil supplants the "humanist" one. The division of disciplines between compulsory and elective courses corroborates such perspective, since elective courses are usually those that are closer to the universe of cultural practices or to the specialization in certain areas (SILVEIRA, 2007).

Thus, the development of skills/competencies desirable and/or required to act in specialized contexts, such as the health field, usually occurs in the workplace (with the support of more experienced professionals or autonomously from the demands received daily), through courses for further training, participation in professional networks, etc. (PINTO; IOCHIDA, 2007; CIOL; BERAQUET, 2009). | 6

Specifically in relation to health, Puga and Oliveira (2020, p. 549) point out that "[...] in Brazil, most schools of librarianship do not offer mandatory subjects for a specific training and focused on the knowledge needed for librarians to work in this area with greater confidence and autonomy". Prudêncio and Biolchini (2017, 2018) conducted studies on health information in the curricula of Library Science courses in Brazil and in Graduate Programs in Information Science. The conclusion of both studies was unanimous: the theme of information and/or health is not directly addressed in the curricula of the courses analyzed. This is an important issue, not because the simple fact of having subjects in the curriculum will guarantee other possibilities of working in the health field, but, fundamentally, for revealing to the students, still during their graduation, that working in health (and beyond university libraries) is a real possibility. Thus, those interested in working in this context will have the possibility to develop skills and/or desirable/required competences even before entering the job market (PINTO; IOCHIDA, 2007; FERNANDES, 2015).

In other countries in Europe and in North America, for example, librarianship training to work in health takes place at the graduate level. That is, librarians specialized in health already have original training in the area (PINTO; IOCHIDA, 2007). In addition to the high degree of specialization that this academic-professional training model can give to the librarian practice, the professionals who work in the international context are known for adding value to health teams in various contexts (FINAMOR; LIMA, 2017; PUGA; OLIVEIRA, 2020).

Despite this scenario in relation to academic training, the fields, and possibilities for librarianship in the health context are multiple: HEI libraries, hospital libraries, research centers, clinical centers, technology assessment centers, government agencies, pharmaceutical industry, trade associations, etc. (GALVÃO; LEITE, 2008; PUGA; OLIVIERA, 2020). It is known, however, that "[...] Brazilian librarians inserted in health work mostly in the academic sector" (CIOL; BERAQUET, 2009, p. 224). This is justified by the legal requirement of having a librarian responsible for the products and services of a library (BRASIL, 1962).

Although the mere fact of working in health may mean the need for the development of certain skills and competences, the workplace is a determining variable. In the case of university libraries, for example, librarians are constantly challenged to articulate the technical dimension with the sociocultural one (, the library is part of the pedagogical project, of academic-professional education). And it is in this scope that the greatest challenges of their practice are inscribed (GALVÃO; LEITE, 2008), given that "[...] health professionals form a group with very particular characteristics in terms of information needs and information-seeking behavior" (TALIM; CENDÓN; TALIM, 2018, p. 187).

It is also worth noting that

The complexity for the performance of the information professional in the health field starts when we observe that in this context doctors, nurses, dentists, psychologists, pharmacists, biomedical, physical therapists, social workers, among others equally important, have and demand knowledge, information and languages related to the health object that can be widely shared, or, depending on the case, only interest a restricted set of specialists (GALVÃO; LEITE, 2008, p. 181).

Due to the different possibilities of librarianship in health (and the American, Canadian, and European influence), there are several nomenclatures and definitions for the professionals who work in this context. Puga and Oliveira (2020) systematized the main ones (Chart 1):

**Chart 1.** Main nomenclatures used to designate librarians working in the health area

Nomenclatures	Definitions and Functions
Health Librarian	Works in libraries and health environments. Indicates generic training that ensures skills and competencies to work in various scenarios, such as medical libraries and research centers.
Health Sciences Librarian	Acts in libraries and health environments. Indicates a generic and specific training that ensures skills and competencies to work in various environments and with inter-relationships with teams of all health professionals.
Clinical or Information Librarian	He has specific knowledge, competencies and in-depth skills acquired in his work environments. In the various descriptions of this professional librarian, he or she has not only knowledge acquired on the job, but also specific training and skills (Biostatistics, Clinical Epidemiology, specific design, and acts in research production).
Health Librarian and Data Manager	He has generic skills but adds knowledge of big data focused on healthcare. Their role is emerging. This librarian works with hospital and other healthcare teams, providing and producing data and information for management.
Librarian 2.0	It has a dual role - as expert and learner simultaneously. This has a role in meta-competence. Characterized ability in self-learning. One who will always be ready for the future. The most important skill of this professional is Learning to Learn.
Health Information Professional	Nomenclature that has also been identified that permeates the skills and competencies of both nomenclatures (health librarian and health sciences librarian), but much more configured to the provision of information.

Source: Adapted from Puga and Oliveira (2020, p. 550-551).

It is worth noting that medical librarian, clinical librarian, and information's (ANDALIA, 2002; GALVÃO; LEITE, 2008) are designations popularly used in Brazil, influenced by the literature and practices of professionals working in the international context, especially in the United States. However, some typical functions of librarians in these contexts do not correlate with the Brazilian reality, precisely because the professionals who work there already have an original training in health. For this reason, part of the Brazilian literature believes that the most appropriate terminology for professionals working in the country would be health librarian or Health Sciences librarian (CARVALHO; RIOS; ALMEIDA, 2014; PUGA; OLIVEIRA, 2020). In the understanding of these authors, such nomenclatures encompass librarians who work in health and have specialized knowledge and info

communication skills/competencies to meet the different demands of health personnel, either through the organization of knowledge or the provision of information services.

Therefore, the analysis of health librarianship in general, and specifically in reference service, cannot be dissociated from the aspects related to librarian education in Brazil, since such variables are intervening in the professional performance.

## 4 THE REFERENCE SERVICE IN UNIVERSITY LIBRARIES SPECIALIZED IN HEALTH

### 4.1 Theoretical and conceptual notes on reference service

The verb reference, from the English reference, means consultation (SANTIN, 2020). Although unusual in the national context, what librarian really offers is a consultation, so that the expression "reference consultation" would be a redundancy. According to the Houaiss Dictionary of the Portuguese Language, a consultation is

Act or effect of consulting. 1 act or effect of asking for the opinion of someone more experienced or expert on (some subject). 2. act or effect of understanding, giving advice, diagnosis, or opinion, or prescribing or conducting medical treatment, etc.; service 3. act or effect of seeking information in (book, information service, etc.) 4. opinion, advice (HOUAISS; VILLAR, 2009, p. 532).

For the Dictionary of Librarianship and Archivology, the reference service is "[...] part of the library services provided directly to the user. It is the essential process of contact between the user and the information" (CUNHA; CAVALCANTI, 2008, p. 334). That is, it is the "[...] support service provided by the library to its users or readers" (CUNHA; CAVALCANTI, 2008, p. 40) | 8

According to the Reference and User Services Association (RUSA), a specialized division of the American Library Association (ALA), the definitions of reference should include two aspects: reference transactions and reference work.

Reference transactions are

Information consultations in which library staff recommend, interpret, evaluate, and/or use information resources to help others meet specific information needs. Reference transactions do not include formal instructions or exchanges that aid with locations, schedules, equipment, supplies, or policy statements (REFERENCE AND USER SERVICES ASSOCIATION, 2008).

In turn, reference work "[...] includes reference transactions and other activities that involve the creation, management and evaluation of information or research resources, tools, and services" (REFERENCE AND USER SERVICES ASSOCIATION, 2008, our translation).

Naturally, "[...] reference service and work have always been based on the technological, social, economic, cultural, and professional context, and cannot evade technological advances, changes in the information environment, and the needs of community users" (SANTIN, 2020, p. 15). Although there is consensus regarding the influence of such attributes in the reference, it is necessary to highlight the importance of the technological aspect nowadays. It is almost unthinkable a reference service without the use of virtual information sources, especially in the health area, which is notable for the plurality of online resources. Despite the relevance of the technological attribute, the classic quote by Grogan (1995, p. 29) already signaled that "[...] the substance of the reference service is information and not a physical artifact. Thus, technology should be seen to perform reference work.

Chart 2 presents, with examples, the functions that constitute this tripod of reference service actions:



Chart 2. Essential functions of the reference service

Function	Description	Examples of actions and services
Informative	Attending to user queries regarding information	<ul style="list-style-type: none"> <li>- Consultation on general information.</li> <li>- Consultation on resources and services.</li> <li>- Bibliographic consultation.</li> <li>- Location, exchange, and delivery of information.</li> <li>- Basic, specific, or general information.</li> </ul>
Consultive	Guidance to users in the selection and use of information sources, tools and multimedia resources for learning, culture, and production of new knowledge	<ul style="list-style-type: none"> <li>- Selection of sources, resources, and information.</li> <li>- Recommendation of works, sources, and resources.</li> <li>- Recommendation of information services.</li> <li>- Bibliographic and documental orientation for the access, search, use and production of information.</li> <li>- Support for research and production of knowledge.</li> <li>- Support for standardization, publication, and dissemination.</li> <li>- Advice on information, learning, research, culture, etc;</li> <li>- Curation, selection, and management of content that users can use independently.</li> <li>- Library outreach in the community.</li> <li>- Bibliotherapy, social and cultural action.</li> </ul>
Instructive	User education, teaching, and information literacy	<ul style="list-style-type: none"> <li>- Individual or group training in the use of the sources, tools, and resources.</li> <li>- Direct instruction in attendance.</li> <li>- Information literacy programs.</li> <li>- Curriculum development and integrated action in the teaching and learning processes.</li> <li>- Free courses, lectures, and participation in educational activities of the institution and the community.</li> </ul>

Source: Santin (2020, p. 21-22).

There is relative consensus in the literature that the reference actions can be synthesized in the informative, consultative, and instructive functions. In this perspective, Santin (2020), with reference to the notes of Bopp (1995), indicates that such theoretical categories are perceptible in practice through information services, training services and guidance services.

Therefore, a reference librarian is a professional who works with information services, training, and guidance. It is expected that such a professional has a certain profile and professional skills. In this sense, Mendonça (2015, p. 40) points out that the professional competence of this professional "[...] ranges from the mastery of information sources, whether material or virtual, to the skills of communication with the user". In Accart's (2012) perspective, to be a reference librarian it is necessary

[...] experience acquired in the exercise of the profession, in addition to a solid education, general culture, knowledge of the field of work, proficiency in methods and instruments, and a special disposition to face any task. The role of reference is learned over time and through experience. A competent professional is recognized thanks to certain qualities of his or her own: curiosity, empathy, and receptivity to others (ACCART, 2012, p. 79).

Accart (2012) further indicates that the role of the reference librarian is plural and requires diverse competencies and skills:

[i] welcome the user: have a friendly and attentive attitude, be directly oriented towards what the user is asking. If the query is of a practical nature (an indication, an orientation) or implies a search for information (a specific, factual or detailed question), the welcoming attitude on the part of the professional should reveal his commitment in the concrete effort to help and solve a given query; ii) listen attentively to the user's query, certain queries need to be better specified, they lack details, the

context of the query (historical, geographical, social etc.) needs to be determined; iii) based on the elements obtained, the professional will propose some clues to be taken into account. ) needs to be determined; iii) from the elements obtained, the professional will propose some clues to solve the query and find the appropriate answer (ACCART, 2012, p. 18-19).

Although the reference service has basic premises, the context in which it is performed determines its specificities, as discussed in the following section.

#### *4.2 Singularities of the service and the reference librarian in the health care context*

Specifically in the context of a HEI, the public served in libraries is usually composed of academics (undergraduate students), graduate students (lato and stricto sensu) teachers/researchers and the general population. When the library is inserted in hospital contexts (or in fields of practice), this public also includes the companions of patients undergoing treatment. For this reason, these people may use the library even to search for information related to a particular health condition or treatment (TALIM; CENDÓN; TALIM, 2018).

Although each public may present specific needs regarding the services offered by the library (and also the level of demand), there is a link between them: the need for access to the main evidence available in the literature on a given subject, whatever the need that motivated the literature search (teaching, development of course completion works, theses, dissertations, clinical practice, etc.).

In general, the characteristics of health personnel are also influenced by the characteristics of the scientific field and by the complexity of the informational context in this field of knowledge. Other factors worth mentioning are the administrative category (public, private for-profit or non-profit, etc.), the academic organization (college, university center, or university), and the organizational culture itself. It is known that in some contexts, especially at the undergraduate level, the student demands the library because the professor demands the student (ANTUNES, 2007).

The sum of these elements, on one hand, explains the general profile of the health area staff, but, on the other hand, from the point of view of the library and the library practices, it requires the customization of the services offered. For this reason, in many libraries (university libraries and others), the reference service is synonymous with support for academics, teachers/researchers and professionals (ANTUNES, 2006). That is, the classic reference service has a new outfit, more aligned to the practices and needs of health personnel. The library is used as a space for study/information, but, on the other hand, as an effective pole of support for the production and publication of new knowledge (MENDONÇA, 2015).

In this case, besides the offer of services related to guidance, support, or training for the search of studies in databases, libraries also offer services such as:

- Support for creating and updating Lattes resume, ORCID, ResearchID, ScopusID and GoogleID, etc.
- Support for using reference managers, such as Mendeley, Zotero and EndNote;
- Support for using review managers (Rayyan, Covidence, etc.).
- Support for project registration with funding agencies.
- Support for scientific writing and publishing.
- Support for plagiarism prevention.
- Support for surveying scientific production indicators and metrics.
- Management of health research data (KUGLEY et al., 2017; UNIVERSIDADE DE SÃO PAULO, 2022).

Paradoxically, although health personnel demand highly reliable evidence to support their practices in various areas of the health field, there are a number of barriers to their location,

access and use: lack of time, lack of facilities, lack of motivation, information overload, lack of skills to assess the theoretical and methodological quality of studies, difficulty in the process of translation and translation of knowledge, and the inability to search for studies in databases (FOURIE, 2009). Thus, in the scope of university health libraries, the reference librarian has a central role in supporting the literature search (ANTUNES, 2006).

Thus, to retrieve the main available evidence, it is essential that a systematic approach is adopted. The health area is notable not only for its intense scientific productivity, as already reported, but for the informational dispersion in several sources (BRASIL, 2021; LEFEBVRE et al., 2021).

However, for more comprehensive literature reviews "[...] it is critical to have a solid knowledge of information resources and skills in searching for them" (GREENHALGH, 2013, p. 35). This means, therefore, that literature search usually requires the development of advanced strategies for the search and retrieval of relevant studies, which therefore goes beyond the simple articulation between descriptors and Boolean operators in databases. On the contrary, it is even necessary to delimit and structure the research question before operationalizing it in the databases and other sources of information, as well as to evaluate the relevance, pertinence, and quality of the studies retrieved.

As a rule, support for the search of health studies is offered in three different ways:

- a) Through and guidance on the study search process.
- b) By elaborating search strategies to locate studies in databases and other sources of information.
- c) By offering courses and/or training on the techniques for searching, selecting, and evaluating studies.

As a counselor/advisor, librarians do not operationalize the literature search itself, but work closely with health care personnel, guiding them from the initial planning stage of the search through to accessing the retrieved evidence. This support may include advice on which sources to search; guidance on the design of search strategies; guidance for full text access; advice and support for the use of reference managers, among other activities (LEFEBVRE et al., 2021).

As executor of the search process, the librarian acts in cooperation with the health personnel to elaborate search strategies; make the results available; obtain the materials for reading the full text observing the legal aspects; organize the studies for data extraction; write or assist the authors of the review in writing the research methods section, etc. (LEFEBVRE et al., 2021).

Finally, librarians can also offer courses and/or training on techniques for the search, selection, and evaluation of studies. These three modalities in which the service of support to the search for studies in databases is offered are correlated to the three essential functions of the reference service, namely: informative, consultative, and instructive (SANTIN, 2020).

The Cochrane Collaboration, a global reference in conducting reviews with high levels of evidence, highlights that librarians play a key role in the production of systematic reviews and that there is growing evidence to support the involvement of an information specialist in the review to improve the quality of various aspects of the search process (LEFEBVRE et al., 2021). It is highly recommended that research/review groups have a librarian (usually referred to as an information specialist) on staff to support authors.

The range of services offered by librarians varies according to the resources available, their skills/competencies, the characteristics of the institution itself, and the demand of its users. Librarian support may include some or all the items listed below (Table 3):

**Chart 3.** Librarians' role in finding studies for literature reviews

- Advise authors on which databases and other sources to search.
- Design, or provide guidance on the design of, search strategies for major bibliographic databases and/or trial records.
- Perform searches of databases and/or records available to the review team.
- Save and group research results and share them with authors in appropriate formats.
- Advise authors on how to perform searches in other sources and how to download results.
- Write or assist authors in writing the research methods sections, specifically regarding the process of searching, selecting, and evaluating studies.
- Arrange translations, or at least data extraction, of documents when necessary to allow authors to evaluate articles for inclusion/exclusion in their reviews.
- Obtain copies of assessment reports for review teams when necessary (within copyright legislation).
- Provide advice and support to author teams on the use of reference management tools and other software used in review production, including review production tools.
- - Check and format references for included and/or excluded studies.

Source: Adaptado de Lefebvre *et al.* (2021, tradução nossa).

It is necessary to consider, however, that the range of services offered is related, on one hand, to issues related to the librarian himself (profile, knowledge, skills and attitudes), but, on the other hand, to the demands presented by his audience and also by the working conditions themselves (because the demands of health staff in a HEI have common characteristics, although there are intervening variables such as the library's geographical location).

Although university libraries gather most of the librarians who work in health, the literature in the field of Information Science highlights that librarianship in health in Brazil is a perennial challenge. This is justified, above all, for three reasons: first, due to the fact that the undergraduate course in Librarianship favors a generalist training rather than specialization in a particular field of knowledge (FERREIRA, 2016); second, due to the complexity and singularities of the health field in practical, theoretical and methodological terms (ANTUNES, 2006; BIAGGI; VALENTIM, 2018; PUGA; OLIVEIRA, 2020); and third, due to the complexity of the teaching-learning process in Brazilian HEIs, as well as the very conjuncture of higher education in the country (CUNHA, 2010). Moreover, the "constant changes and evolutions in the health area require librarians to rapidly develop their learning" (PUGA; OLIVEIRA, 2020, p. 549).

The Medical Library Association (2020), a global reference for health librarians, listed in six areas the professional competencies desirable and/or required internationally for librarians working in the health area:

- Area 1 - Information Services: the librarian should be able to locate, evaluate, and synthesize evidence to meet the information needs presented to them.
- Area 2 - Information Management: the librarian should be able to organize and make available data, information, and knowledge about health in general.
- Area 4 - Leadership and management: the librarian should be able to manage people, time, budget, facilities, and technologies.
- Area 5 - Evidence-based practice and research: the librarian should be able to evaluate research studies and use them to improve health practice.
- Area 6 - Health information professionalism: the librarian should be able to promote the development of health professionals, particularly regarding access to and use of evidence (MEDICAL LIBRARY ASSOCIATION, 2020).

## 5 CONCLUSION

In view of the aspects discussed in this text, it is evident that both the university library and the practices of reference librarians working in these spaces are influenced (if not conditioned) by the characteristics of the scientific field, the culture and institutional context, the context of higher education, the professional practices that feed back into scientific research, etc. Similarly, the singularities of reference service are also demarcated by such issues.

Despite the challenges related to librarian training in Brazil and the development of desirable and/or required competencies/skills to work in health, the literature has highlighted that such elements are not an insurmountable obstacle to professional practice with excellence (BIAGGI; VALENTIM, 2018). However, librarians need to recognize that such variables are intervening in their professional practice and that the search for improvement/specialization is a pressing demand (PUGA; OLIVIERA, 2020).

The role and importance of the library as a space for information/study is already consolidated in the popular imagination and in the public perception of the academic community (PUGA; OLIVIERA, 2020). However, it is necessary to advance in the recognition of the university library as a pole of support and production for the creation of new knowledge (MILANESI, 2002). There is a duality in this issue: on one hand, librarians need to recognize the limits, but fundamentally the potentialities of their performance and assume an effective role of protagonist in supporting the technical-scientific production and researchers; but, on the other hand, it is necessary that the academy recognizes in the library and in the figure of the librarian a producer of knowledge, although the position held is technical and not that of researcher/teacher.

Despite the concreteness of the challenges to be overcome, this is an important issue | 13 to be discussed in the current technological and social conjuncture so that libraries in general, not only university libraries, may demonstrate their vitality and reaffirm their relevance. After all, the wide use of the Internet and online search engines brought with it the false perception, especially within the scope of common sense, that any content is available for access on the Internet with ease, at the reach of a click (CARR, 2011). It is known, however, that the search for reliable information/evidence does not fit into this common place. Skills and competencies for usability of information resources are not given, but socially constructed.

Although the responsibility for demonstrating the practical-theoretical relevance of the university library should be shared by the entire staff, a central role is delegated to the reference librarians, because they are in the front line of public service. It is through the services offered to support academics, teachers/researchers, and professionals - whether in the demands of teaching, research, practice, or extension - that the library, through the reference librarians, can attest its relevance. For this, it is necessary to leave the common place, which does not mean to be comfortable, to assume an effective role of protagonist in the institutional context.

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