An overview of information instruction in hospital libraries in Spain

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Abstract

Information instruction is essential to providing support for clinical care, teaching and research in hospitals. In the international literature, little has been published about this function of hospital libraries in Spain. This study examines the education activities of Spanish hospitals. A questionnaire about staff, education activities and institutional recognition was distributed via email to Spanish hospital libraries. The data was analysed in February 2023. 84% of libraries provide education activities. The average number education staff is 1.3. Common instruction topics are database searching, citations, researcher identity and scientific journals (quality, impact and publication standards). 83% of libraries are part of the undergraduate medical curriculum, 67% are involved in graduate medical education, and 30% are part of the institutional research plan.

Key words: *hospital libraries; information literacy; continuing education; staff development; medical education.*

Introduction

A hospital library is a library specializing in health sciences that is defined by: being located in a hospital (1); the users it serves (health professionals and students); the services it provides to support clinical, teaching and research activities (2); employing at least one qualified professional librarian (3-7).

Among the services of hospital libraries, instruction in knowledge-based information resources is fundamental to supporting the three key components of the health professions (clinical care, teaching, and research) (3, 8). This is well established in the international literature (4, 8-10), and by the leading organization in the profession, the Medical Library Association (MLA) (2, 3, 11).

In Spain, there is no official body that issues standards for hospital libraries or their education activities. The only example of standards was published in 2019 by BiblioMadSalud, the association of medical libraries in the community of Madrid. These standards include user support and training as a core function for their member hospital libraries (12).

To have the most impact, hospital library instruction must be part of institutional curricula, and support the clinical, teaching and research accreditation requirements of the hospital. For instance, instruction that supports undergraduate and graduate medical education should be supported by curricular standards according to the official medical education requirements published by the Spanish Ministry of Health (13). Since 2015, Spanish graduate medical education requirements have identified the library as the unit responsible for training in scientific information (14).

All hospitals in Spain are required to have research committees. In 2007, the Spanish government created a designation for Health Research Institutes, which are partnerships between hospitals and universities (15). Among the many accreditation requirements of these centres (16) is a requirement for a research training plan (section 2.4).

To date, there have been few studies about the educational activities of hospital libraries in Spain. The only study, from 2021, analysed the activities of hospital libraries and virtual health science libraries (17). A total

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of 150 libraries responded. Of these, 73 libraries (48.6%) carried out instruction. This study was fundamental, since it was the first snapshot of health science library activities in Spain. However, much has changed in the few years since it was completed. There are three major limitations. First, the study was completed prior to the COVID-19 pandemic. We must remember that due to the State of Emergency, many libraries saw their services reduced and they have not recovered (18). Second, some virtual libraries have been consolidated, and in many cases, have absorbed functions from hospital libraries. Third, the aim of the study was to understand the general activities of hospital libraries, including but not limited to instruction.

Much remains unknown about information instruction in Spanish hospital libraries. The aim of this work is to determine what education activities hospital libraries in Spain carry out, how they are integrated into the structures of their related hospitals and how they fit into the hospital structure for health profession education and research.

Methods

To carry out our work, we surveyed hospital libraries in Spain. The data collection process was as follows:

a) *creation of a questionnaire:* the survey was divided into three blocks: 1) questions about the library and number of personnel, 2) questions about education activities (audience, topics, format), and 3) questions about the integration of library instruction into the institutional structures (e.g., undergraduate curriculum, graduate medical education curriculum and research support). We used Qualtrics to create and implement the survey;

b) *sample selection:* to determine the current number of hospital libraries in Spain, we referred to the National Catalogue of the Health Sciences (*el Catálogo Nacional de Ciencias de la Salud)* (19), which was compared with the list of libraries from the Catalogue of Publications in Spanish Health Sciences Libraries (*Catálogo de Publicaciones en Bibliotecas de Ciencias de la Salud Españolas)* (20). We identified a total of 90 unique libraries;

c) *survey distribution:* in November 2022, we sent an email to all identified libraries with a link to the survey. Announcements were also sent to Health Sciences Libraries forums, and follow-up phone calls

were made to library contacts to request participation;

d) *data analysis:* the data obtained was downloaded into Microsoft Excel for analysis. A descriptive analysis was completed in February 2023.

Results

About the libraries: a total of 77 libraries responded (85.5%). Four responses were excluded, 3 because the name of the library was missing, and one because it was not a hospital library. The total number of valid responses was 73 (81.1%). Among the 62 libraries providing education, the average number of personnel dedicated to teaching was 1.3 people. Given the importance of information literacy instruction, it is essential not only to have subject expertise, but also pedagogical training. Of the libraries offering education, 39 (62.9%) indicated their personnel have some kind of training in teaching methodology.

Educational activities: 62 libraries (84%) provide educational activities. 26 libraries (35.6%) indicated that other hospital departments also provide information instruction alongside the library. Of the 11 libraries not providing educational activities, 6 reported that another hospital department has taken over services the library previously provided.

User groups to whom libraries provide educational services: <u>hospital personnel</u> (*Table 1*), nearly all the libraries (95.1%) provide education for physicians and nurses. A third of the libraries serve other user groups, including many types of health professionals and researchers. Twelve libraries indicate they serve non-health professionals, although that is not the main patron group. <u>Graduate medical students</u>: out of the 62 libraries providing instruction, 61 (98%) serve residents. 49 libraries (67.1 %) indicated they are part of the resident education plan, and 3 were unsure. That is, 12 libraries provide education for residents without being part of the formal graduate medical education curriculum. <u>Undergraduate medical students</u>: University hospitals and network hospitals host medical students in their last years for clinical rotations and/or practicum. Medical student education is governed by undergraduate medical education requirements. 61 libraries (98%) provide educational sessions for this group. Out of these, 19 (30.6%) indicated that they are part of the formal undergraduate curriculum, and 11 (percent) were unsure.

User group	Number (n)	%
Physicians	59	95.1%
Nurses	59	95.1%
Others	21	33.9%
Other health professionals (*)	11	17.7%
Non-health professionals	12	19.4%
Researchers	6	9.6%

*Including: physical therapists, occupational therapists, technicians, dentists, speech language therapists, and other health personnel and those that entered "all personnel," "health personnel in general," etc.

Table 1. *Hospital personnel groups to whom libraries provide educational sessions.*

Instruction formats: 61 libraries (98%) provide in-person training, 39 (62.9%) deliver online training, and 38 (61.2%) publish user guides and other support resources.

Education topics: questions about instruction topics were structured in 6 sections (*Table 2*). The most common topic was databases, of which Medline was the highest. Sections 3-6 focused on research and scholarly publication. 22 of the libraries state they are part of the research education plan of their associated Health Research Institutes.

	Topic	n	%
Databases	Medline	58	93.5%
	CINAHL	33	53.2%
	Embase	30	48.3%
	Web of Science	8	12.9%
	Scopus	2	3.2%
	National Databases	7	11.2%
	Cochrane	5	8.1%
	Clinical guides	2	3.2%
Point-of-Care resources	(ClinicalKey/UpToDate/DynaMed)	16	25.8%
Support for scholarly publication	Citation styles and/or citation management tools	47	75.8%
	Quality of scientific journals and/or impact factor and quartiles	47	75.8%
	Journal publishing standards	29	46.7%
	Study types and/or critical appraisal	18	29.0%
	Researcher identity and profile and/or normalization of researcher signature	40	64.5%
Research impact and preservation	Repositories	12	19.3%
	Metrics	2	3.2%
Research dissemination	Research Data Management plans	2	3.2%
	Open Science and/or impact on publication	2	3.2%
Others	Plagiarism	1	1.6%

Table 2. *Topics covered in educational activities of hospital libraries.*

Institutional recognition: 83% of the responding libraries are part of the undergraduate medical education curriculum. 67% participate in graduate medical education. We believe a relationship with a continuing education accreditation agency is necessary, through which librarians can strengthen and guarantee adequate support for knowledge based information in an era of staff reduction (21). Only 22 libraries (35.5%) are part of their institutional research plan.

Discussion

The objective of this study was to determine the role that hospital libraries in Spain play in the scientific education of their users and institutions, and to determine their recognition by the bodies governing hospital education. We identified 90 active hospital libraries in Spain, 60 fewer than Sobrido-Prieto *et al*. did in 2021 (17). Even though there is not currently an official registry of hospital libraries in Spain, we believe that this supports anecdotal evidence of a decrease in the number of hospital libraries in recent years. The effects of the pandemic, consolidation of virtual libraries, and policies cutting back healthcare funding have taken their toll.

In the 2021 study, 48.6% (n=73) of libraries reported offering instruction (17). Our survey showed that in 2023, 84% (n=62) did. We believe that the difference between absolute and percentage data is not due to an increase in education activities offered, but by the decrease in libraries. It would be interesting to determine if provision of education is key to the visibility of the library and if libraries that provide education are more likely to survive. In 6 cases, education activities previously offered by the library have been absorbed by other hospital departments.

In any case, we have detected an increase of 35.6% in libraries offering educational activities, which we consider an improvement since it is a library activity strongly supported by international professional standards and frameworks (2, 3).

With respect to the new data provided in this study, we have the following observations:

Library personnel: within the responding libraries, the average number of librarians dedicated to teaching was 1.3. We believe that there are several issues that we didn't account for: the size of the hospital (and related number of users), and the percentage of workload dedicated to instruction. Out of these librarians, less than two-thirds (62%) indicated they have received any type of training in teaching methodology. We do not know if the libraries provide support for pedagogical training of their librarians, or if it is up to the individual to find time and funds to pursue professional development in these topics. We consider this a key issue, since we can only reach our users effectively with appropriate teaching strategies.

Instruction formats: sixty-one libraries (98.3%) stated that they carry out in-person instruction. In our opinion, this mode is crucial. It makes libraries visible to their users, and provides the opportunity to give feedback directly to students. Thirty-nine libraries (62.9%) indicated they provide online instruction. Online instruction is key for several reasons. Libraries often not only serve their hospitals, but also their health networks, covering a large geographical area. Online instruction can reach users not reached by in-person offerings due to scheduling conflicts, travel restrictions, and other factors. 38 (61.2%) libraries prepare on-demand user guides, video tutorials and other support resources, which are very useful for users when they have questions while they are looking for some type of specific information.

Education topics: database searching is the most common training topic. MEDLINE is the most commonly taught, followed by CINAHL and Embase, which reflects the main user groups of physicians and nurses. In addition, 26% of the libraries provide instruction on point-of-care resources (ClinicalKey, UpToDate, DynaMed). Given that these are some of the most widely used tools by clinicians, this seems like a low percentage. In Spain, while the Ministry of Health has a requirement for information training in undergraduate and graduate medical education, there is no central curriculum. For this reason, we believe that it would be valuable for a standard curriculum to be developed and institutionally endorsed.

Among research topics, the most common themes are citation management, researcher identity, and scientific journals (quality, impact factor, publication standards). Classes related to research dissemination are offered by a surprisingly low percent of libraries (3.2%), considering the impact this can have in a health professional's career. Since the goal of research is to establish facts, reach new conclusions, and make the results known, research dissemination is a key objective in the new ecosystem of open science and citizen science.

Institutional recognition: as noted above, the education provided by libraries to their user groups is not fully recognized by their hospitals and regulating bodies in Spain. Nor is there a common curriculum requirement for hospital library involvement in graduate medical education or research, which gives rise to great variability between libraries and among autonomous communities.

Despite the lack of institutional recognition and scarce human resources (librarians), many hospital libraries offer information instruction. It would be interesting, for future studies, to determine how hospitals with libraries compare to hospitals without libraries in quality and other measures (22).

Conclusions

The hospital library has a key role in the education of health sciences students and professionals in the field of scientific information. This is well-established by the MLA (2). Standard 5 of the *Standards for Hospital Libraries and Librarians, 2022* includes "education of hospital's clinical, nursing and medical staff" and "clinical education" as key functions of the hospital library (3).

Recommendations - we consider it essential that hospital libraries in Spain:

- include educational activities in their scope of work, as recognized internationally by health sciences libraries standards;
- get involved in the undergraduate, graduate and continuing education curricula of health professionals. This involvement should be integrated into hospital curriculum requirements and research commissions or committee regulations;
- require library staff who provide user education to receive training in pedagogy and teaching methodology to achieve optimal results ensuring that health professionals strengthen and improve their information skills.

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