

Facing new challenges: a proposal of information services organization in hospitals

Olivia Pestana

CETAC.MEDIA

Communication Sciences and Technologies Research Centre,
University of Porto,
Porto, Portugal

Abstract

When facing the new challenges launched by the present financial scenarios, health information services in the context of hospitals can transform health information management in a way that facilitates not only progress in services, but also organizational success. We present a model of the (re) organization of information services in hospitals, having as its theoretical-epistemological reference, the post-custodial and informational paradigm of Information Science, which conveys a holistic view of information, with a direct effect on the organization of services.

Key words: information services; archives; libraries, hospital.

Introduction

The discussion of the phenomenon of health information is part of a scientific field: Information Science. Advances in technology and the evolution of scientific and technical information have boosted the discussion around this disciplinary field, often accompanied by librarianship studies and putting aside the archives. However, the development of new technologies of information and communication, which have occurred especially in recent decades, combined with the evolution of the information society, show evidence that the phenomenon is wider. Moreover, the possibility of remote access to information, without the need to face local consultation in archives and in libraries, has emphasized this evidence.

Several studies claim that health libraries have a direct impact on clinical decision making, saving time for professionals by retrieving relevant information more efficiently and reducing costs (1, 2, 3). Hospital archives have been always distant from these discussions, mainly due to existing structures, where records managers have predominated. Skilled professionals, such as the archivists, have been mainly responsible for archives of information considered relevant to historical research.

Hospitals' archives have an important role in the daily activity of institutions, because it is usually from them

that the access to paper patient files is developed, as well as supplementary diagnostic images, in the event of not being computerized. There are few studies about the purpose of the use of hospitals' archives as a result of daily activity, but we can infer that it constitutes a fundamental unit for the proper functioning of the institution, with regard to the processing of information that requires special attention due to its sensitive data, or considering the organizing of administrative information.

Information services in the Portuguese National Health Service

In order to better understand information services in the Portuguese health sector, we have studied the information services in the hospital context in the past years (2007-2012). This study has developed an analysis of national policies, programs and strategic directions that could underlie the functioning of the services concerned. The study was focused on traditional structures: the archives and libraries in hospitals of the Portuguese National Health Service, considering that a significant part of the Portuguese population uses public services of healthcare. In addition, works already published about these services were also analyzed. The publication of works about information services in the hospital setting has been greatly reduced. The majority of the work focuses on collections considered of historical and patrimonial value, many of them already

Address for correspondence: Olivia Pestana, CETAC.MEDIA, Universidade do Porto, Praça Coronel Pacheco, nº 8, 4050-453 Porto, Portugal. E-mail: opestana@letras.up.pt

incorporated in other entities, such as the National Library of Portugal, and the National Archive Torre do Tombo, for example.

In order to understand the organization and operation of existing services, a survey was sent to hospital entities, consisting of two direct questionnaires, targeted at directors of archives and of libraries. The volume of responses reached almost half of all institutions that existed at the time (year = 2008). We have to highlight that, in the last decade, the Portuguese network of public hospitals has been under profound transformation, many times aggregating entities.

The official management documents of hospitals, such as reports and regulations, were reviewed, in a way to describe the formal vision of the information services mission and activities. These documents illustrate that, during last few years, some services were merged and others lost their specialized professionals, especially in libraries. On the other hand, some hospitals have implemented new archival services; nevertheless their subordination still is to patients' admission department. We found that there is not a real national policy for health information. There are measures applied to critical areas and sectors, such as health care and management of patient's information and also the management of entities, from a financial standpoint. It is a perspective especially focused on information technology, and it does not address the problems of organization and management of information, which should be before the implementation of any technology solution.

As relevant aspects of the existing services, we can state the following:

- existence of information services in many hospitals,
- proper facilities and in good condition,
- library collections organized and in good repair,
- standardized technical procedures in some libraries,
- qualified staff in the libraries.

There are, however, other factors that affect its proper functioning:

- inadequate organizational framework of the services, many of them under the direction of departments without a functional link as, for example, the patients admission (archives) or human resources management (libraries),

- limited working hours, concentrated on weekdays,
- technological infrastructure inadequate or insufficient,
- few management tools and lack of quality assessment,
- unqualified staff in the archives,
- insufficient concern for the safety of facilities and of information.

A new model of information services

Building on the findings obtained in the study, we propose a (re)organization of information services, having the post-custodial and informational paradigm of Information Science (4) as the theoretical-epistemological paradigm of this work, which conveys a holistic view of information, with a direct effect on the organization of services.

The proposed model has its genesis in the systemic theory, which determines the design of a holistic view of information services and not of fractionated services, as in the current situation. On the other hand, the systemic and interactive model is able to be applied to the department, regardless of the amount of information flow in the institution. Otherwise, we could return to the custodial and fragmented model, in which information is divided by funds or collections, crafted by different services and hindering the flow of information.

We followed the guidelines presented in the Portuguese legal diplomas (5, 6) that concern the organic structure of hospitals, in order to create a new structure of information services that could be integrated in institutions of that kind.

The Information Department chart would be as follows:

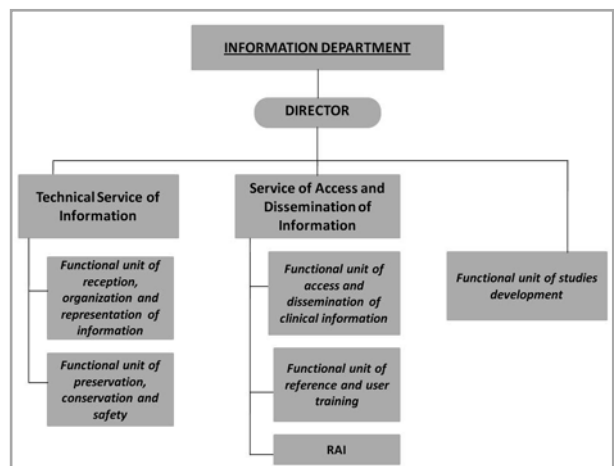


Fig. 1. Information Department chart in a hospital organization

The model of the department contemplates the existence of two services: the Technical Service of Information, and the Service of Access and Dissemination of Information, as well as various functional areas, some of them aggregated to services.

The Information Department should have a centralized character. The other departments and services of the hospital should fit and interact with this department, in order to be the central point for receipt of information, considering all types of information, in any form. Measures to ensure the use of patterns of organization and representation of information should be implemented in order to contribute to better information retrieval. In this context, a policy should be adopted for establishing clear principles for the organization and representation of information. Given the inherent characteristics of information on the provision of health care, their reception and treatment must be in accordance with the principles established by the Portuguese Ministry of Health. Thus this area should have an exclusive team of work, considering the confidential type of information.

The Technical Service of Information has its activity distributed by the Functional unit of reception, organization and representation of information, and by the Functional unit of preservation, conservation and safety. Both units perform their functions closely.

The rules of availability and utilization of information should be established by these functional units, in conjunction with the Responsible for the Access to Information – RAI (this function is mandatory by law and consists of a person nominated by the hospital administration in order to manage the several requests to information made, for example, by patients, by patients' families, by police authorities, by insurance companies, etc).

The activity of the Functional unit of preservation, conservation and safety focuses on the establishment and implementation of preventive conservation measures and safety standards applied to all kinds of information, to ensure the authenticity, reliability and a long-term access to information. In order to define lines of action to be taken, as well as planning the resources involved, it is important to have a strategic plan that would allow conducting activities in this field, as well as a specific emergency plan to the Department. The emergency plan should enable the prevention, intervention and recovery

in emergencies with an adverse impact, including the physical transport and the retrieval of digital resources. Issues related to the security of information of a confidential character, as well as to certain materials of special value or conservation status should be given special attention.

The Service of Access and Dissemination of Information integrates the Functional unit of access and dissemination of clinical information, the Functional unit of reference and user training, and the unit called Responsible for the Access to Information, already mentioned.

In this model, information professionals will be an active part of the clinical teams, not only through participation in the search of information that supports decision-making, but also in the analysis of the information that makes up the clinical process, as well as the verification of the components of this process, always safeguarding confidentiality. In addition, information professionals will participate in the research and preparation of information related to clinical cases, taking an active role in the evidence-based medicine performance, allowing the integration of the scientific literature in decision-making, aiming to approach each patient as a specific case in light of the latest scientific research results.

The Functional unit of reference and user training will support all users in the optimization of available information resources to meet their information needs regardless of the professional group of origin, as well as identifying, localizing and evaluating information resources. The activity of this Functional unit consists, then, of meeting users information needs, scientific or any other type, through direct support in the execution of searches or through the creation, development and evaluation of training programs specially directed to this end.

The Functional unit of studies development is not included in any service, and will conduct studies in order to support the assessment regarding scientific activity, and regarding the evaluation and promotion of quality. Through the activity of this Functional unit it will be possible to test new performance indicators and develop opportunities for improving methods of evaluating information services, providing experiences that can support future revisions of existing standards.

Future perspectives

The applicability of the proposed model is not limited, in our view, to the entities providing hospital health care or to public hospital entities. This model can be applied to other structures providing healthcare, for example, providers of primary health care or continuing care units. The activities of the organization and representation of information are the essential foundations of the access and use of information in any context. They should be framed in light of the theoretical approach adopted in this work. However, as the information services have been developed based on a split caused by the attention given to the document and not to information, the standards and organizational principles for the technical treatment

have also followed this view, being, in our opinion, inadequate given the evolution of information, mainly from the growth and use of electronic information.

The convergence of principles and standards is ongoing, with a view to technical treatment in line with reality and the informational needs of users. Nevertheless, the differentiation between information traditionally assigned to the archives and information assigned to libraries may interfere with the establishment of convergence measures towards integrated treatment of information. That is why it is necessary to adapt information services to a reality already transformed by the (r)evolution of technology.

Received 13.02.2013 Accepted 17.02.2013

References

1. Dunn K, Brewer K, Marshall JG, Sollenberger J. Measuring the value and impact of health sciences libraries: planning an update and replication of the Rochester Study. *J Med Libr Assoc.* 2009;97(4):308-12.
2. Marshall JG. The impact of the hospital library on clinical decision making: the Rochester study. *Bull Med Libr Assoc.* 1992;80(2):169-78.
3. Klein MS, Ross FV, Adams DL, Gilbert CM. Effect of online literature searching on length of stay and patient care costs. *Acad Med.* 1994 Jun;69(6):489-95.
4. Silva AM, Ribeiro F. Documentation / Information and Their Paradigms: Characterization and Importance in Research, Education, and Professional Practice. *Knowl Organ.* 2012; 39(2), 111-124.
5. Decreto-Lei nº 188/2003. *Diário da República - 1.ª Série A, No. 191 (Aug. 20, 2003)*
6. Decreto-Lei nº 233/2005. *Diário da República - 1.ª Série A, No. 249 (Dec. 29, 2005)*