



KNOWLEDGE ACQUISITION PROCESS IN THE MANAGEMENT OF NURSES IN HOSPITAL ORGANIZATIONS

PROCESSO DE AQUISIÇÃO DO CONHECIMENTO NA GESTÃO DE ENFERMEIROS EM ORGANIZAÇÕES HOSPITALARES

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Abstract: This study aimed to analyze how the knowledge acquisition process is managed by nurses in hospital organizations. This is a qualitative study carried out in six public hospitals from July to September 2022. The data was collected through semi-structured interviews with 15 nurse managers and analyzed according to content analysis and the absorptive capacity model. The results showed that knowledge acquisition occurs through the use of intra- and extra-organizational sources of information and knowledge, such as documentary and non-documentary information, through institutional documents and legislation, training programs, in extra- and intra-organizational courses and on-site training, and professional practice. It was concluded that the sources of intra- and extra-organizational information and knowledge are crucial to the process of acquiring knowledge in professional nursing practice, with stages and components that have an impact on the effectiveness of this process and should therefore be strategically conducted and planned by nurse managers.

Keywords: Need for Information; Acquisition of Knowledge; Knowledge Management; Nursing Services; Hospital.

Resumo: O presente estudo analisou como o processo de aquisição do conhecimento é gerenciado por enfermeiros em organizações hospitalares. Trata-se de pesquisa qualitativa realizada em seis hospitais públicos do estado da Bahia de julho a setembro 2022. Dados coletados através de entrevistas semiestruturadas com 15 gestores de enfermagem foram analisados segundo análise de conteúdo e o modelo de capacidade absorptiva. Os resultados demonstraram que a aquisição do conhecimento ocorre mediante a utilização de fontes de informação e saberes intra e extraorganizacionais, como informações documentais e não documentais, interação com colegas e profissionais com *expertise* e nos programas de capacitação dentro e fora das organizações. Concluiu-se que as fontes de informação documentais e não documentais internas e externas à organização são determinantes para o processo de aquisição do conhecimento na prática profissional da enfermagem, com etapas e componentes que favorecem a efetividade desse processo quando estrategicamente conduzido e planejado por enfermeiros gestores.

Palavras-chave: Necessidade de Informação; Aquisição de Conhecimento; Gestão do Conhecimento; Serviços de Enfermagem; Hospital.

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1 Introduction

It is understood that the basis of human development is knowledge, which is necessary to sustain interactions among people, their behaviors, and their daily activities at the individual and relational levels, which make up the development of societies. These societies, despite having different perspectives around the world, tend to seek social, political, environmental, and, in particular, economic growth through professional work. In this process, the relevance of knowledge management (KM) for professionals and organizations emerges, since, if knowledge is well defined and worked on, it can positively impact organizational performance (Ziviani, 2019).

It is clear that knowledge in itself is not enough to guarantee its use in practice of services, and it is necessary to develop several complex processes for its absorption, transfer, circulation and appropriation among people (Nonaka; Takeuchi, 2019). In this regard, many limitations of professionals in the most diverse areas are observed in putting knowledge into practice and many organizations; in turn, even recognizing the need for new knowledge, do not have a structured absorption system focused on innovation (Silva; Costa, 2019). To this end, the need to manage the process of acquiring this knowledge is valued, which is the object of this study.

Knowledge acquisition process management is considered the first stage of organizational KM as well as the first stage towards knowledge application and creation in professional practice. Supporting Lane, Koka and Pathak (2006), it is understood that both the professional and the organization cannot explore knowledge without first acquiring it, just as the fact of acquiring knowledge does not mean that they have the capacity to transform and explore it. These then depend on a policy to encourage the implementation of knowledge acquisition and application processes within the organizational scope (Nonaka; Takeuchi, 2019).

In this understanding, Brazilian research proves that strategic KM practices interfere in the capacity for innovation and organizational performance. It was shown that Brazilian companies focus their management on explicit knowledge, and can obtain better performance when they also prioritize tacit KM, which is configured in workers' individual sphere (Davila; VarvakiS; North, 2019).

Thus, identifying the level of maturity in KM should be the beginning for improving the techniques used and the advances necessary for organizational knowledge institutionalization, with a view to continuous improvement of administrative processes



and results for the quality of services provided, as indicated by a study carried out in Brazil, in public institutions (Santos, 2019).

It is understood that, in the health area, such quality of service is sought in diverse contexts with inherent complexity, in which care for people is based on growing and intensive knowledge of technical and technological innovations, permeated by ethical and humanitarian concepts as well as economic, structural and equal access limitations. It is noted that these services are provided in environments of small, medium and high complexity, whether in primary networks or in hospitals, and it is essential to adequately train professionals to intervene in disease prevention, injury treatment and promotion of the population's health in its various dimensions (Sartori; Machado; Tonial, 2021; Brasil, 2018).

In these scenarios, nursing services are organized to meet the complexity of care and the uniqueness of people with different levels of health imbalance, which requires the application of managerial, technical and technological processes. Thus, it becomes challenging for nurse managers to conduct the service effectively and satisfactorily, without using management tools that aim at continuous improvement of administrative and care processes in knowledge application and production. These challenges can interfere with the quality of services provided and, consequently, with professional and organizational development.

It is understood that hospital institutions, in particular, whether public or private, are characterized by complex structures and forms of organization, diverse environments that use technologies – soft, soft-hard and hard – that are constantly changing, including advances in information and communication. Thus, administrative practices aimed at improving management in hospitals must be those that solve or circumvent problems in the interpersonal sphere; that define processes, accreditation models, methods of managing projects; and that invest in technical and technological innovation (Farias; Araújo, 2017). A high capacity for adaptation and problem-solving is therefore required, combined with the social demand for quality services, requiring new ways of managing knowledge. Hence, it becomes essential that management seeks more modern management tools, such as organizational KM.

A study states that there is an understanding that nurses' actions are based on scientific results, although it is observed that the best evidence is not always used to support professional practices; this occurs due to difficulty in completing stages to find them, for several reasons that include the environment and the work process in hospitals



(Silva; Santos, 2021). Thus, it is considered that nursing work requires knowledge acquired, absorbed, shared, applied and produced in the various care units, under the management of nurses in public and private hospital organizations. To this end, the first stage in the organizational context is the search for information from sources internal and external to the organization, which provides the necessary elements for developing knowledge and qualified actions in favor of professional activities and personal interests (Souza; Silva; Soares, 2023).

This study's theoretical framework highlights that the efforts made to seek information are influenced by three aspects, such as intensity, speed and direction, in which the greater the effort, the greater the result. Thus, the need for understanding the organization emerges, in order to allow knowledge internalization, being considered as assimilation, represented in the protocols and conducts used to analyze, process and interpret information acquired externally.

In view of these considerations, this study was based on concepts and recommendations by Lane; Koka and Pathak (2006), who understand an organization's performance as dependent on the absorptive capacity of knowledge and also on the organization's ability to monitor or even anticipate what happens in real time in the process of acquiring knowledge from its employees. Thus, they define absorptive capacity as a company's ability to use knowledge developed externally, highlighting the company's forms of conduct in the process, such as flexibility and receptiveness in acquiring and assimilating knowledge. The authors also explore the company's commitment to transforming and exploiting capabilities, based on information acquired, developing the knowledge obtained and incorporating it into services to improve its performance.

A study by Erlang and Maikeli (2022), carried out in technology-based companies considered innovative, concluded that they need to implement methods that encourage knowledge transfer, improving flexibility and efficiency as well as managing and developing absorptive capacity through knowledge exchange and collaborative spaces. A culture of innovation is then created, with effective information flows, suggesting alignment of leadership with resources, processes and people. This study points out that internal sources can influence this process, such as prior knowledge, experiences, leadership, individual knowledge, management style, internal communication, research and development. They also present external influences, whether from competing suppliers or consumers, highlighting relationships with other organizations and strategic



alliances. Customers stand out because they play a key role in shaping the segmentation and trends that the company will follow (Werlang; Maikeli, 2022).

In this theoretical context of absorptive capacity, presented by Lane; Koka and Pathak (2006), the present study considered discussing potential capacity, which refers to the capacity to acquire knowledge in the context of nursing prior to knowledge creation in professional practice. This concept reiterates the role of managers as a determinant for the effectiveness of these processes, with a scope that involves managers' capacity, team professionals' participation and organizational support to identify and acquire knowledge that is relevant to the nature of the service and that is external to them. Thus, it is understood that the probability of the process being more skillful in the unit of action is increased, with continuous renewal of knowledge.

Given these considerations, the importance of studying knowledge acquisition, assimilation, application, sharing and creation in nursing's management context is therefore clear. In order to contribute to the discussions, understanding the importance of interpreting concepts in everyday reality, this study aimed to analyze how the knowledge acquisition process is managed by nurses in hospital organizations.

This study's relevance is justified by its contributions to the proposal of management practices for nurses in hospital organizations, when discussing possibilities and guidelines capable of guiding management action plans. These leverage the absorptive capacity of knowledge in nursing services. It is important that such proposals are intentional and systematized and that they can, in fact, contribute to the development of nursing and hospital organizations, raising the standard of care for the population.

2 Methodological procedures

This is a qualitative study, with exploratory and descriptive design, which analyzed the reports of nurse managers working in public hospitals in the state of Bahia. The study is part of ongoing research project entitled "*Gestão do Conhecimento Estratégico e da Segurança do Paciente para o Desenvolvimento dos Profissionais e das Organizações de Saúde*", integrated with the Study and Research Group on Nursing Services Administration. The writing of this study followed the COnsolidated criteria for REporting Qualitative research (COREQ) guidelines, which consists of a checklist for qualitative studies composed of items divided into three domains: research team and reflexivity; study concept; and analysis and results (Tong; Sainsbury; Craig, 2007).



The setting consisted of six public hospitals in a municipality in the state of Bahia, northeastern Brazil, which are medium- and large-sized hospital organizations and which agreed to participate in the research.

All nurse managers in active employment were selected through direct contact with the hospitals' general nursing management, which provided access to the nurses who managed nursing care units: Surgical Center; Emergency and Inpatient Unit; Central Sterile Supply Department; and Intensive Care Unit. Fifteen interviews were conducted with nurse managers, following the criterion of exhaustion of information to complete the search for participants. Thus, the inclusion criterion for managers was to have worked for at least six months as a manager of nursing care units, as it was understood that, after this period in the position, they were already integrated into the organization and more confident in the management process regarding team management and institutional policies. Managers who were on vacation, special leave, or pregnancy leave during the data collection period were excluded as well as those who postponed the interview after three scheduled interviews.

Data collection took place from July to September 2021. After identifying and locating the managers, contacts were made to introduce the researchers and the research project, and invitations were sent via email and social media, explaining the research's intention and objectives, and the importance of their participation.

The interview script consisted of two parts: the first contained sociodemographic information; and the second had a guiding question: describe how your management practices are developed for acquiring knowledge in the nursing service. Three test interviews were conducted to validate the script, which were not considered for analysis. The Informed Consent Form was signed by participants before starting the interview. At the time of collection, participant privacy was guaranteed, and information was collected at a work environment of their choice, in a quiet room, with only the participant and the researcher present, without interruptions, and at home, when virtual, via Google Meet[®]. The interviews lasted an average of 40 minutes.

In order to record all the information provided, the interviews were recorded, upon participants' permission, using voice recording applications on the interviewing nurses' cell phones, one doctoral student and two master's students, who were duly oriented and aware of the best practices for collecting information. At the end of the interview, participants had the opportunity to listen to the recordings, authorizing the transcription, and later read and validated what was transcribed.



The data analyzed, according to Bardin's content analysis (2016), followed three stages: pre-analysis; material exploration; and data processing. In the first stage, the interviews' content was skimmed to arrive at the constitution of the *corpus*. In the second stage, the criteria of exhaustiveness were followed, determined by the use of all the interviews' content, and of representativeness, to express interviews' experiences and homogeneity, in search of similarities and relevance of content to the research objectives. Subsequently, the recording units or themes were cut, decomposed, coded and assigned, which, due to similarity, were grouped into a category: Intra and extra-organizational information and knowledge. Thus, three subcategories emerged: Documentary and non-documentary information; Training programs; Exercise of professional practice.

The data saturation point was reached when information began to repeat itself in each category of analysis, without new elements being identified. The third stage of content analysis was carried out by interpreting the results and summarizing the analysis. The analysis of results was based on concepts advocated in the absorptive capacity management model at work proposed by Lane, Koka and Pathak (2006). They define absorptive capacity as a company's ability to use knowledge developed externally through three processes: (1) recognizing and understanding new valuable external knowledge through exploratory learning; (2) assimilating new knowledge through transformative learning; and (3) using assimilated knowledge to create new knowledge and results.

The authors also explored a company's absorptive capacity, highlighting its conduct in the process, such as flexibility and receptiveness in acquiring and assimilating knowledge and commitment to transforming and exploiting capabilities. Thus, based on the information acquired, knowledge is developed, incorporating it into services for their improvement (Lane; Koka; Pathak, 2006). For the present study, it was considered to discuss, in the theoretical context of absorptive capacity, potential capacity, as it is the process that precedes knowledge application and creation in professional practice.

The study was approved by the Research Ethics Committee (REC), under Opinion 5.168.134, with own funding. It complied with the guidelines and standards that regulate research involving human beings, as established by Resolution 466/2012 of the Brazilian National Health Council and by Circular Letter 2/2021/CONEP/SECNS/MoH, Brasília, published on February 24, 2021, which guides procedures in research in a virtual environment.



Each participant, after hearing the necessary clarifications, agreed to sign the Informed Consent Form in two copies, one of which was given to the nurse interviewed and the other remained with the researcher. To preserve managers' identity, the alphanumeric system "M" for manager was used, followed by the number corresponding to the order in which the interviews were conducted (from M1 to M15).

3 Results

Nurses reported management practices to acquire knowledge through team induction actions aimed at solving problems and improving the quality of nursing services in hospital organizations. It is worth noting that this process precedes another, which is the process of applying this knowledge. They also mentioned using various sources of knowledge available in the internal and external context of the organization in which they worked, whose reports can be evidenced in category and subcategories.

The sources and forms of access to knowledge acquisition, which were presented by managers, are recognized within the scope of the search for sources of information and knowledge based on situational diagnosis of needs in the service. The majority highlighted as sources documentary and non-documentary information, the exercise of professional practice and the training programs made available, such as short and long-term courses, acquired through their own initiatives, or offered by hospitals. Among these are those offered by academic institutions, professional associations and continuing education. They also highlighted manager training, who act as multipliers and facilitators in team training, and encouragement for training co-workers. They demonstrated little emphasis on the recognition of needs for improvement or acquisition of new knowledge as well as in relation to sources from scientific publications.

3.1 Documentary and non-documentary information

The reports showed that technical publications issued by professional associations, resolutions and legislation are used as well as scientific publications in journals, indicated as a way of acquiring knowledge, as per the exceptions:

[...] there are institutional documents that have been produced, such as the Standard Operating Procedure. Some specific protocols that are written by the team itself and are based on other documents, articles or books from the Brazilian societies themselves, specifically. (M14)



So, with everything we looked for in the literature: infection control, NHE, quality, we were forming a protocol for caring for this COVID patient, right? Which had several versions, as things were updated. So, from there, we sought scientific knowledge. (M1)

[...] we study legislation, new relationships, RDC, American guidelines. We transfer this to us professionals. With this, we compile and how do we apply it? Through flow, protocols. (M6)

The practice of interaction between reference professionals and those with expertise in certain knowledge in the search for learning also emerged from reports. In this case, ways of sharing knowledge are used during work activities with team co-workers who have certain expertise, with professionals from other sectors or from other organizations.

In conversations with co-workers, with more experienced people, it is also a way of seeking this and acquiring this knowledge, in addition to the experience and the study itself... yes, in conversations with nursing directors, what some situations they bring up also point out. So, the experience in other places also gives me this, yes, a way of acquiring. And recently, we are finalizing the project with another hospital. I was part of the surgical center team that worked on goal 4, which is safe surgery. So, it was also a way of seeking knowledge, because the staff brought a lot of innovation, things that already happen in other institutions. So, exchange is a source of acquiring this knowledge, not what I don't know. I go there and ask how it works, how it's working at that moment. It's about reproducing it here for the team. (M12)

So, we can acquire knowledge in many ways, right? We acquire knowledge all the time, right? We look for it, depending on your area of interest, you will look for it outside the institution. You look for it internally too, because there are many other co-workers with whom you can share it. (M8)

But I think it's an excellent strategy to acquire knowledge and to always be in communication with your peers, with others who work in the same area. (M2) [...] with professionals in the field, right, because they are people who often have much greater knowledge and, therefore, we need to be improving ourselves better in relation to this. (M6)

The hospital staff [...] (mentioned the name) helped us a lot. They even offered courses that we really enjoyed. We have taken advantage of them and they give us a lot of tips. There is the London protocol that we work with, which was something new for me. (M4)

3.2 Training programs

Knowledge and skills needs are usually identified by managers after assessment or pointed out by team professionals. Studies with refresher courses scheduled by the hospital where they work and graduate courses offered by universities, as well as training in services, workshops, participation in scientific events, stood out as sources of knowledge, according to statements:

In this assessment of competence, the levels of knowledge that the professional needs to acquire are highlighted. Together with the people development unit,



a training plan is drawn up and this training plan can be for either the individual or the team as a whole. (M14)

[...] where the team indicates what it needs, what it thinks it should have in terms of training, and then not only the issue, the technical issues, but also, as I said, other issues, such as teamwork, motivation, humanization. (M12)

[...] so, the knowledge you acquire today that I try to keep updated through practical courses. The institution also provides it at various times, right? I think academia doesn't prepare you as much to be a manager, so you really have to seek knowledge outside... SUS university, some things, it has some courses... we now have two nurses trained as specialists in robotics. In fact, three of them are taking graduate studies, one is already working with robotics. (M13)

[...] I go abroad, I look for articles, I look for graduate studies, as I have already done, right? Courses, everything that can improve me in what I understand is necessary for that moment or that is signaled as necessary for that moment... (M8)

From various sources, right? So, we have workshops, we have themes that we encourage, right? In fact, it's not just a question of applying... continuing education on site. Not only in the classroom, much more on site, because we need. (M9)

[...] we start to study better; we start to take courses. The hospital has been offering courses. So, the courses have helped us a lot to be able to pass on the importance of this safety to maintain the service quality. (M4)

[...] knowledge is acquired through courses, events, update programs, bulletins and information produced by ANVISA and the literature that exists in the areas of this management. (M3)

[...] I did a great practical class and expository classes here at the hospital where there are teaching rooms with all the material available to carry out the process. (M5)

[...] epidemiological surveillance and these agents always bring information. They create refresher courses, we participate, for instance, a lot in conferences, in professional refresher courses. (M2)

Managers' statements highlighted training itself as an experience of acquiring knowledge as it is conveyed to their team:

[...] I research, right? I search for myself and I also participate in the training offered here by the hospital and I also produce, I end up doing these trainings with the team. I am a multiplier too. (M10)

So, we had to train the entire team. (M11)

This is usually done through improvement courses, right, networking, with professionals in the area, right, because these are people who often have much greater knowledge and, therefore, we need to be improving ourselves better in relation to this. Macro and micro training, we do a very large training where we include all professionals. (M6)

We carry out training in the classroom on-site and through specific monitoring carried out by a specific supervision group. (M3)



[...] we do a series of on-site and classroom training sessions, right, for new and old employees. The entire team is trained with continuing education, the CCIH, the patient safety manager, the quality nurse, the entire hospital. (M8)

3.3 Exercise of professional practice

The demands for services that arise in the daily work, combined with the knowledge already established and applied in the hospital, were also pointed out by interviewees as sources of knowledge acquisition.

I understand that I acquire knowledge both through the practice of my work and the demands that arise for me at work, both comprehensive demands for patient care here and external demands, sometimes. Knowledge in the area of infection control is inherent to your daily routine; you will acquire knowledge through work; the practice itself encourages this. (M2)

[...] I'm looking for information. I study what's new, in conversations with nursing directors, what some situations they bring up also point out. (M12)

[...] through two paths, right? To acquire these resources, part of it is my own initiative, where I will seek information that I need to do to add to the activity that I develop, and some moments when we have specific activities in the institution that also bring us some type of knowledge that we need. (M7)

4 Discussion

Interviewees recognized the specific needs for knowledge within their own individual scope and that of the professionals in the team they worked with, seeking sources of information and knowledge that would allow them to acquire them, such as various short-term and graduate training courses, training courses, meetings, workshops, and gatherings, which are promoted by the hospital where they worked and those made available in the academic environment. It is reiterated that, in a process of seeking knowledge, what is intended is its use, whether with the objective of solving a problem, making a certain decision, or building knowledge and learning from activities (Otonikar *et al.* 2019).

It is understood that the need for improvements, which involve the service structure and organization and nursing care planning and production, must be the beginning of the process for acquiring knowledge. In this sense, it is essential that nurses lead continuous assessments to identify these needs, with the participation of the team that, in an active, integrated and connected manner, follows the development of sciences to apply best practices, innovate and produce new knowledge.

From the perspective of organizational KM, the knowledge acquisition process, which includes choosing the source of knowledge, is strategic and aimed at meeting the



needs identified in the service. It should be coordinated and promoted by the organization, without compromising professionals' individuality and autonomy of choice. Participation in the process can spark interest in other personal development demands. Thus, strategic KM practices should be conducted with the purpose of recognizing knowledge existing in the organization, identifying its weaknesses and gaps as well as identifying and enabling access to external sources and new ways of developing such knowledge in the service (Kianto; Hussinki; Vanhala, 2018).

It is important to note that there are ways to fill knowledge and capacity gaps in services, such as recognizing the organization's internal expertise, learning and developing its own capabilities during work practice, or even through external transfer of strategic acquisition sources. It is important to note that rapid conveying of information and periodic meetings to exchange experiences, discuss problems and make decisions can greatly increase the learning processes and implementation of innovations in services (Silva; Johann; Tontini *et al.* 2021).

In this regard, managers reported their experiences with an emphasis on acquiring information and knowledge, with emphasis on their own needs. From this, it can be inferred that the driver of these actions goes beyond the recognition of the responsibility of their own professional performance for patient care quality and in leading the team as multipliers responsible for training and other qualification activities, promoted by the hospital. It is important to emphasize that, according to the understanding of KM, it is recommended that managers lead by example and inspire the team to embark on the organization's purposes (Kasteli *et al.* 2022).

As highlighted in this study, it is also observed that managers acquire training in order to minimize the lack of training in their area of activity so that this search is restricted to their own initiatives and personal interests. This result reveals that, among the interviewees, there was a purpose of expanding their potential, for professional growth and development, which also makes them envision new perspectives of opportunities in the job market.

It is worth noting that, in managers' performance, several sources of documentary and non-documentary information are part of the process of acquiring knowledge in their practices. In this context, multiple sources of internal and external information are important for making administrative decisions that may imply changes and improvements, and should therefore be carefully chosen. Managers also cited relevant sources, such as documents from institutional archives and legislation as well as



communication between co-workers and professionals with expertise. The reports demonstrated a perception that, in nursing services, information usually reaches the team through managers.

However, it is important to highlight the numerous sources of information that exist in the health area that were not mentioned, such as contact with patients/users/clients, suppliers, other organizations, research and scientific events, among others. It is understood that, when clients' needs are known, professionals' needs are also recognized and identified, which, in turn, depends on a continuous process of conveying information and acquiring knowledge.

When acquiring relevant strategic information to be passed on to the team in the service, managers understand the importance of their performance and commitment to the development of the work they manage. However, they must not lose sight of the fact that each professional needs to be individually sensitized to carry out their own search, since motivation is essential for this process to occur effectively and continuously. People, in general, acquire and use information, doing so under multiple influences to fill different knowledge gaps, preferences and methods of seeking information and by work or situation or problem characteristics, determining the way to use and access information. It is also considered that the search for information to acquire new knowledge begins with a broad survey or with an extensive sharing of information, establishing connections with many sources inside and outside the organization (Otonikar *et al.* 2019).

In this context, it is important to highlight that the behavior of searching for information and its documentary sources is favored by advanced technological bases that allow quick access to publications of formal documents as well as dissemination of scientific articles. This availability accelerates the process of acquiring information and knowledge through this source in relation to others, such as publication of books in scientific communication. However, a study highlights the existence of limitations of professors and students in carrying out qualified searches (Silva; Teixeira, 2023), which can generate the collection of inaccurate, incomplete and even erroneous information, thus requiring careful verification in this collection.

Non-documentary sources of information are part of managers' practice when there are interconnections with co-workers and professionals with expertise/specialists. This is an important conduct, since information is processed individually by each person to generate individual knowledge and, thus, this content conveyed by the other



encourages reflection, understanding and assimilation, which favors knowledge acquisition and work practice improvement. In this understanding, Fonseca and Nassif (2022) argue that information is not always explicit in traditional sources, as it can be present in people's minds, in a system of constant exchanges, involving experiences, memories, values, emotions and beliefs, being decisive in attitudes and decisions.

In the context of organizational KM, the search for information and knowledge external to the company is important for the process of innovation and competitiveness. In nursing, a study on KM, carried out in a care unit for older adults, reaffirms that teamwork is an integrated knowledge activity that increases transfer of information and knowledge, storage and implementation of existing knowledge, creation of new knowledge, in addition to favoring continuous quality of person-centered care. They also confirm that, in any nursing environment, it is important to identify and use the best information communication technology available (Kejžar; Dimovski; Colnar, 2023).

By promoting and encouraging the search for knowledge for the team and for themselves in training courses offered by hospitals and other educational institutions, managers demonstrated alignment with what is recommended by KM as an important management action to trigger the construction of individual, collective and organizational knowledge. This was evidenced, for instance, in the implementation of practical actions in problem-solving, creation of new products and new processes, when technologies and methods are disseminated beyond their reality in the service. In this conception, investments in learning processes in the organization are necessary and affect the way services and products are produced, with benefits in the better use of external knowledge acquired (Andrade *et al.* 2021)

Research shows that most business leaders believe that the ability to learn new knowledge is a competitive advantage for the organization, highlighting that professionals have the skills to assimilate knowledge from external sources and are able to adapt this knowledge to current service situations, which is why they advocate offering incentives to continue their training and continuous learning (Werlang; Maikeli, 2022).

It is important to emphasize that the ability to acquire new knowledge differs between individuals and organizations, even if the source of knowledge is the same. Therefore, the intra-organizational environment, with its internal characteristics and the absorptive capacity of professionals, interferes in the way new knowledge is received and used. In order to transform knowledge, it is necessary to refine and develop processes that



favor the combination of existing knowledge with external and assimilated information (Cassol *et al.* 2018).

In this sense, most of the interviewees took training courses, especially those provided by hospitals and graduate specialization courses, which they took at universities. They mentioned the importance of taking on the role of instructors in training and courses, emphasizing their practice as multipliers of knowledge in the service. For the team, actions were reported to promote short courses and training in partnership with continuing education projects, in addition to the incentive to take graduate courses in areas of technological expansion in health, such as robotic surgery, which at the time was not yet offered in the public hospitals that operated there.

In management practice, identifying training and professional development needs should be part of managers' actions. Courses and seminars, available to the public in a combination of this external knowledge with specific knowledge already existing in the service, offer an excellent opportunity to create knowledge. It is noted that these provide the necessary boost for an organization's performance, as they add specificity and value to the organization's knowledge base (Kasteli *et al.* 2022).

It is generally accepted that recruiting talented professionals for the job is not enough, since ongoing training and development are necessary to keep the organization's knowledge base up to date. Therefore, managers should carefully select training based on discussions with employees and allocate appropriate resources for it. It is important to emphasize that an effective combination of knowledge can be achieved in a state of complementarity with others, if they are directed predominantly to those specific areas that are relevant to the organization's expertise (Kianto; Hussinki; Vanhala, 2018).

Likewise, on-site training and participation in courses offered by hospitals and other graduate courses undertaken on professionals' own initiative are appropriate and considered spaces for teaching and learning. Therefore, they should be part of the strategic planning of good management conduct practices in the service.

Given the complexity of the work environment, many organizational problems depend on innovative and sometimes unknown solutions, which requires intensive – and constantly adapting – ways of seeking information and learning. However, the use of formal training to teach how to perform protocolized tasks may not be as effective when there is high complexity of tasks or fluidity in social interactions. In this case, learning has become more informal, agile and based on practical experience; therefore, it results from the initiatives of workers, such as the strategies they can use to learn when there are



no training and development actions or support processes and organizational culture. This informality corresponds to 75% of learning in organizations and should be facilitated by a teamwork structure, the existence of social networks at work and by greater responsibility, more autonomy and challenges/work demands (Borges-Andrade; Sampaio, 2019).

The acquisition of knowledge during work was mentioned by managers as a moment of learning and knowledge construction. This understanding corroborates the theoretical conception verbalized by professionals, with emphasis on the experience and diverse experiences at work, provided by expertise and knowledge already established and internalized over time by the organization. It is important to understand that, during the performance of work, tacit knowledge is expressed by skills based on action, and is not limited to rules and protocols. It is, however, learned over long periods of experience and in execution of tasks, during which an ability to make intuitive judgments about the successful completion of tasks is developed. Therefore, personal knowledge, based on individual experience, is the basis of all organizational knowledge (Nonaka; Takeuchi, 2019)

The ability to absorb knowledge, encouraged by experience in daily work, promotes transformation of practice, by expanding the possibility of developing and strategically modifying routines, articulating the knowledge already existing in the service with that which has been recently acquired and assimilated. Therefore, it will allow the application and leveraging of current skills or creation, incorporating the knowledge acquired in the various activities of the professional and the organization (Lane; Koka; Pathak, 2006; Puffal, Puffal; Souza, 2019).

It was observed that managers had several possibilities for acquiring knowledge. However, strategic planning is essential, considering factors such as: the high demand of the system; the speed of knowledge change; the impact of technologies; the social conditions and work environment that involve professionals; and the health status of clients/users/patients. Moreover, it is essential in this process to learn to learn quickly, continuously, with mastery and ownership over what is learned (Gimenez, 2020).

Nurse managers are therefore required to have the skills to plan actions by identifying the team's and the service's information and knowledge needs as well as to find and articulate sources, motivate professionals to acquire these resources and promote conditions for applying the knowledge acquired individually. It is also important that they



encourage sharing knowledge within the group so that knowledge circulates spontaneously within the service.

Given the above, and because it is considered a topic with a constantly evolving approach, this study may support nurses' managerial actions in knowledge acquisition, absorptive capacity and application in the conduct of services. With these tools, it becomes possible to achieve the objectives of promoting the development of professionals, the service and the organization and, mainly, to ensure competent and safe care for patients, users/clients. Thus, it is expected that this study will have adherence and importance to the scientific field and daily practices.

5 Final considerations

Managers used management practices to acquire knowledge in nursing services through sources of information and knowledge made available in the internal and external context of the organization in which they worked. Such sources are based on the situational diagnosis of needs in the service, and can be summarized as follows: documentary and non-documentary information, such as institutional documents and legislation; interaction with co-workers and professionals with expertise/specialists; promotion and encouragement of the pursuit of knowledge through training, such as intra and extra-organizational courses and on-site training. The concept that knowledge is acquired through daily professional practice was reiterated.

However, for these practices to be effective in improving service performance, knowledge acquisition must be understood by managers as a management process, with actions that require planning, coordination, application and systematization. Thus, its management and application must, in a strategic way, involve the entire team in daily work.

Thus, nurse managers need to have skills to: plan, through the identification of needs, the use and application of information and knowledge at the individual, collective and service levels; find and articulate sources; motivate professionals for these acquisitions; seek organizational support; promote conditions in the service for the application of individually acquired knowledge; and encourage sharing within the collective so that knowledge circulates spontaneously in the service. Managers' autonomy in such processes, effective team participation and essential support from continuing education and other sectors of the organization stand out.



It is expected that this study will contribute to the understanding and reflection of how nurse managers' performance can improve professionals' performance, promote innovation and quality of nursing care, through knowledge acquisition management as a prerequisite for the application and continuous production of knowledge in hospital organizations.

A limitation of this study is the participation of only nurse managers from public hospitals and from one municipality in northeastern Brazil, considering that the experiences of professionals working in private settings could add other elements to the knowledge acquisition process. However, the results presented can serve as a reference for other realities.

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