

KNOWLEDGE MANAGEMENT PRACTICES IN A REFERENCE HOSPITAL – FROM DIAGNOSIS TO RESULTS. A CASE STUDY

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Abstract: More and more, manufacturing 4.0 has brought innovations to all kind of organizations, independent of their size. Nowadays, delighting the clients through an unforgettable experience is a must! To that extent, achieving high performance is needed; therefore, projects for knowledge management have been an object of study and research for those organizations. This study focuses on verifying the knowledge management practices applied at a reference hospital XYZ (over 200 beds and high complexity) in Rio de Janeiro, Brazil. This research is based on a descriptive exploratory study, where a diagnosis over its ongoing projects helped to capture, what knowledge management practices are in place, amongst: Knowledge management culture (is there a culture of knowledge sharing and collaboration? Is there a mentoring program?); Knowledge management tools (is there value added by selecting, implementing, and launching shared knowledge management tools?); Is there management compliance and integration? (Integration of knowledge management best practices into processes, programs, and teams); and finally, knowledge measurement and improvements. Analyzing or evaluating hospitals in Brazil is not an easy task. The literature offers little guidance on appropriate methodologies. Academic research shows a lack of competence in system management because most healthcare organizations had discussed knowledge management issues, but only a few of them had plans and structures for knowledge management (Karsikas et al. 2022). The available studies generally come from the United States and some European countries, and their results may not be applicable to low- or middle-income countries, which have fewer resources in the health field (Hujala et al. 2021). This citation reinforces the results encountered – knowledge management practices are not

consolidated requiring more attention due to backwardness of knowledge management in the private hospital sector caused by a model created by hospital owners, generally doctors with family administration, who did not give due importance to the qualification and composition of the administrative structure.

Keywords: Hospital Sector; Knowledge Management; Knowledge Management Practices.

INTRODUCTION

In order to understand the Brazilian private hospital activity, which stood out from the growth of health plans in the 70's, we will first address the entire context surrounding this article's objective, once available to other countries, so that anyone can understand the problems and the reasons for the segment's delay in healthcare. We would like to start posing an holistic view about healthcare activities: they are industries of continuous processes, by production order (account number or medical record), of on request products, personalized and random, since each patient is unique, even though 20 patients are treated with the same procedure, each organism will react the same or different way depending on each one's health and DNA (deoxyribonucleic acid) history. According to De La Torre et al. (2019), this compels healthcare companies to explore innovative strategies that augment the dynamics of the system and its responsiveness to the needs of users. Thereupon, says De La Torre et al. (2019), the development of Knowledge Management (KM) models appears as an important strategy to face new challenges, improve healthcare, and add value to the community. For Karsikas et al. (2022) academic research shows a lack of competence in system management because most healthcare organizations had discussed knowledge management issues, but only a few of them had plans and structures for

knowledge management. An important issue of knowledge management backwardness in hospitals from the private sector falls on the management model created by hospital owners, generally doctors without any knowledge in business administration. The worst-case scenario shows that, family members are the administrator (although some have a higher degree in administration or economics, they lack professional experience and knowledge in healthcare). In addition, qualification and composition of the administrative structure is compromised and far from best practices.

KNOWLEDGE MANAGEMENT IN HEALTHCARE

This business philosophy is known as one that just aims to keep the fixed cost low, to get more profit for the family business, from a financial perspective only. In this low-cost context, in the administrative operational areas, they hire people with a low degree of qualification in inventory management, costing, budgeting, and processes, among other important areas of business management. Therefore, such a scenario provides hiatuses for improvement opportunities that would result in a better economic and financial results, allowing the creation of a strong culture with changes and great paradigms. Little research is currently available on managers' competence in knowledge management in the context of health care. It could be expected that the results would not differ much from what has been reported for other managers, as managers are recognized to play a crucial role in successful knowledge management practices (Karsikas et al. 2020).

The few successful entrepreneurs are the one's which abandoned a medical career to study business management and dedicate themselves exclusively to business and hired professionals from outside the health sector. Universal Health Systems are in check in the

current global conjuncture, economic crisis challenges fiscal stability, the exponential growth of new technologies and the threats to social policies make the idea of maintaining public and universal systems a controversial topic and questioned by many governments (de Paula et al. 2018). Following this thought, in Brazil the public health system is in deficit, and with this, even with the poorly managed private sector, the population needs to resort to health plans to guarantee care, whenever required, resulting in a captive demand. For non-economists, this is a scenario in which demand remains stable (customers, borrowers of these services), but the prices of this production rise (sale price of plans and payments for hospital medical services). Structural inflation, on the other hand, is like cost inflation, whose price variation occurs due to the inefficiency of the structures involved in the health production chain, that is, hospitals, operators, as well as contracted doctors where everyone follows a remuneration model. Health in Brazil is in crisis, something not new to many countries, despite having competent and dedicated health professionals, the core problem resides in the lack of process, people, and ITS management. The impacts of Industry 4.0, globalization and financial crises together are questioning the conventional way of doing business – it is necessary to reinvent health services, focusing on providing them more efficiently, considered that there is still room for improving a strategy that encourages companies to invest in advanced healthcare in key areas. As mentioned, there are continuous technological advances that can aggregate a competitive and innovative differential, which can be put in place by using knowledge management tools and practices, through mentoring, dissemination and sharing of knowledge from the strategic level to the bottom of the organization.

KNOWLEDGE MANAGEMENT PROJECTS

A knowledge management project within the organization is neither created nor developed alone, requires not only changes in technology, but rethinking the way knowledge is used to strengthen leadership, workplace culture, collaboration, and work on itself. It is a continuous effort that involves creating individual knowledge and expanding to internal teams – sections, departments, divisions, until reaching the top of organizations.

KM can be viewed as the process of identifying, capturing, storing, sharing, applying, and leveraging collective knowledge to improve performance (Wang et al. 2020).

Knowledge, which is a critical resource for companies, needs to be managed properly not only in single firms but also across SCs. For the education of business managers, this implies a double challenge: first, to make students and future executives become aware of the knowledge management (KM) practices that can be adopted; second, to facilitate the assimilation of these practices for the effective management of SCs, to ensure higher economic and environmentally sustainable performances, (Kassaneh et al. 2021). One could say that Knowledge Management is a strategy of getting the right knowledge to the right people at the right time to improve organizational performance (Salzano et al. 2016). Knowledge management has become one of the most important activities across different organizations, although management is struggling with the efforts to embark on initiatives and the minimal return in competitiveness (Chan, 2017). He identified three Knowledge Management pillars – people, processes, and IT, acting as fundamental constituents driving KM programs to attain a desirable organizational performance. Others will treat it as a

management model used to capture good information and generate knowledge already in place within the organization practices to manage ITS, organizational change, and human resources.

Our case scenario is a hospital company of high complexity, a universe where a variety of resources, specialized equipment and devices are submitted to help healthcare, and where we can say, for sure that, any kind of difficulties will arise in all processes.

During a training course about internal communication in the company the author worked for in 1990, there was a survey where managers from all departments participated; at the end, overall feelings were that, only 35% of the whole information coming from directors arrived correctly at the level of execution! Imagine how much confusion there was surrounding information, communication, and transmission of knowledge within the company, how many mistakes, how many resources were lost trying to fix the damage. In view of this context, can you imagine how companies in the hospital sector in Rio de Janeiro are managing knowledge within their organization?

This study aims to diagnose which knowledge management practices are in place and the results, by observing people, processes and ITS involved, in a reference hospital XYZ in Rio de Janeiro.

One limitation of this study is the source of information. One of the authors used his former collaborators to interview and capture all information they have. Their profile intentionally comprised middle-level workers involved in processes' decision-making at the assistance areas of a hospital. The insights from other professionals could have brought additional perspectives.

CASE STUDY – KNOWLEDGE MANAGEMENT AT HOSPITAL XYZ

THE XYZ HOSPITAL

Hospital XYZ - Rio is dedicated to high and medium complexity procedures. The unit also has an Emergency Service that serves customers of medical plans, in addition to private individuals. With 202 beds and 11 operating rooms (one of which is a hybrid room - for performing surgery while obtaining images of what is happening). This type of room was born from the need to treat increasingly complex cases in a less invasive way, since its foundation was designed to be a national medical reference center.

Located in a strategic point in Rio de Janeiro, the project occupies 30 thousand square meters of built area and serves more complex cases in specialties such as cardiology, vascular surgery, neurosurgery, hemodynamics, orthopedic, spine, bariatric surgery, among others, always valuing the efficiency, resolvability, and the offer of high-quality medicine.

The unit also has an advanced image park - one of the most modern in Rio de Janeiro. The tomography and resonance equipment chosen, have great definition and software that makes them fast and efficient. For the patient, an advantage is the reduction in the use of contrasts in some procedures, since the quality of the images is higher, giving the doctors more security in their diagnosis. Hospital XYZ has a high-quality multidisciplinary team, and all employees undergo technical and behavioral training. All hospital protocols and flows have been designed and documented according to international standards. The unit has a Level III Accreditation Certificate (Excellence) from the National Accreditation Organization (ONA), in addition to the Sepsis Identification and Treatment Certificate from the Latin American Sepsis Institute (ILAS).

Both organizations are represented in Brazil by the Qualisa Management Institute (IQG).

THE CONTEXT IN WHICH XYZ OPERATES

Ask yourself, is there a way that health organizations, especially hospitals, cannot be operators' dependent? Collaborators, nurses, and physicians, directly involved in procedures, and processes as well as regulations, play an important role in its dynamics. It is easy to deduce that the interaction amongst these groups needs to be part of the management strategies, to make clear communication and negotiation processes. These intellectual activities using science and technology to save lives or care for humans, have also social, cultural, and educational elements in the quest for results.

The Healthcare sector in Brazil due to its particularities and complexity shows the private market in the hands of individual agents where, either paid individually or collectively for health insurance plans, services providers are from private companies, medical cooperatives, or self-management. The regulatory agencies vary for each sector agent: National Health Agency (ANS), standardize and supervise health insurance plans; National Agency for Sanitary Surveillance (ANVISA), supervise providers.

Despite the existence of these regulatory agencies, there are so many players in the whole scenario that it is easy to understand the long way to go to change from bureaucratic managed to knowledge managed organizations. Concerns over revenues and profits, gains, and losses, are still greater in private hospitals than investing in best practices of knowledge creation, generating deficiencies in these processes. The gathering of information through information systems' (ERP's) focused on technical and number-related information and not on gathering the

organization's knowledge is still what one can find.

In the private sector, the problem is related to the management resources rooted in the obsolete hospital management technique, presenting problems of lack of information available to change the directions of your organization. The result of this lack of information is that most hospitals do notably what are the procedures that generate greater profitability, which treatment leaves the best gain per night, which are the physicians who add the highest value. And, mainly, they cannot create knowledge necessary to develop actions that generate practical results in profitability.

The viability of a Knowledge Management program varies by segment and work done by each company; how risk is managed; the personality and management philosophy of the CEO; and the underlying business model. because the CEO defined a business model that conformed to his or her vision.

The lack of knowledge management practice instruments leads most hospital managers to unfold to obtain information, invest millions in hospital information resources and, most of the time, the problem remains. It is important to realize that information and knowledge should not be a resource, intact and immutable. Knowledge is built, that is, it is the result of people building meanings from messages. Knowledge lies in the minds of the company's employees and partners.

The entire inefficiency of the private health value chain has been protected by rising health insurance prices, and those who can afford it will continue to use it. But the price increase does not always free some operators from ending the activity, leaving customers in the hands of the ANS to relocate customers to other operators, but it is not always successful. Faced with so many problems, the private

health market is sustained by being inelastic in its demand, as stated by Ghorbani (2021) and this observation can be seen in Brazil. Price increases do not change demand, as shown in the table evolution of beneficiaries from 2009 to 2019.

Year	Beneficiaries	Price Adjustment	Index - IPCA
2009	42.561.398	6,76%	4,31%
2010	44.937.350	6,73%	5,91%
2011	46.025.814	7,69%	6,50%
2012	47.846.092	7,93%	5,84%
2013	49.491.826	9,04%	5,91%
2014	50.531.748	9,65%	6,41%
2015	49.281.663	13,55%	10,67%
2016	47.648.231	13,57%	6,29%
2017	47.108.705	13,55%	2,95%
2018	47.122.091	10,00%	3,75%
2019	47.025.398	7,35%	4,31%

Table 1: Evolution of beneficiaries in health plans, price adjustment and inflation. Source: Beneficiaries Information System – SIB/ANS/MS. Data updated to 01/2020.

In addition to the problems mentioned so far, two very important issues are added: the structural issue of operators and hospitals, which contributes to cost inflation, whose variation in costs is due to the inefficiency and productivity of these structures, especially with regard to indirect costs and overheads; the second rests on a question of the remuneration model and pre-fixed tables that determine the prices of services provided, where operators treat all hospitals as equal, which is a tremendous mistake or “smart”, to obtain advantages. The remuneration model encourages fraud in the medical bill, as this price reduces the profit margin of hospitals. Everyone knows that, but nobody does anything to change it. The operator probably has the advantage of being the top of the health value chain, since they are the ones who pay for the services provided.

In this crisis scenario, Wang et al. (2020), cites that to ensure the survival and sustainability of healthcare organizations, individuals must effectively take advantage of their knowledge to deal with crises. Consequently, Knowledge management is required for empowering knowledge to function effectively to help organizations survive the crisis. The author considers that the use of technologies like, artificial intelligence (AI) and data analytics can offer to healthcare professionals a holistic understanding of the crisis situation.

These resources and tools are important but need to be designed and disseminated with a broader understanding of knowledge management practices, like how knowledge is created and disseminated in the organization.

CRITERIA OF KNOWLEDGE MANAGEMENT DIAGNOSIS

Although there is no universal conception on what good knowledge management entails and best practices vary depending on the needs and characteristics of a particular organization, knowledge management broadly refers to the process through which organizations generate value from their intellectual and knowledge-based assets.

In the healthcare industry, further examination helps to define the various aspects of the healthcare industry and domain that can be taken into consideration regarding the integration of knowledge management practices. Eight different types of knowledge within healthcare have been defined.

What does it mean to manage a complex healthcare organization like XYZ? Regarding personnel, trained employees, with knowledge and equipment (combined with continuous improvement and best practices) that meet customer requirements. Regarding management, managers capable of recruiting, training and disseminating good practices, in order to overcome the challenges of the

complexity of the contemporary health system.

For Canarim (2015), in the middle of the Information Age, we hear a lot about information as a strategy tool for companies, and we know little about how Competitive Intelligence (CI) can help to produce information for decision making. In Brazil, CI started in the 1990s led by information professionals from the National Institute of Technology (INT), that is, far from the business world, INT is a federal public body, belonging to the Ministry of Science and Technology, but in the last decade it has received relevance in large Brazilian companies.

Understanding how healthcare managers access and use management knowledge to help improve organizational processes and so promote better service delivery is of pressing importance to policymakers, practitioners, and healthcare researchers (Ferlie, 2016, p.156).

Rather than experiencing coherence and stability, managers in healthcare, instead, face conditions of fragmentation and fluidity that continue to make the generation, application and sharing of a coherent body of knowledge—let alone the development around it of a coherent professional community of practice—a constant challenge and a somewhat distant goal (Bresnen, et al., 2017, p.2).

Daily, healthcare services live constantly incorporating new technologies to offer in response to clients' needs when new diseases appear requiring innovative resources or new care models – showing a systematic process of strategic and operational learning. However, the organizational context interferes in this managerial process. This segment of organizations is concerned with medical-care protocols as management instruments since new knowledge for diagnostic and therapeutic use appear.

Scientia potentia est – Knowledge is power, and its correct use also guarantees strategic leadership but, only if it is available to people that need it. As mentioned before, XYZ Hospital has clear evidence of its investments in new technologies and information systems. ITS department have created the so called “conditions” for the basic elements of a Knowledge Management project; here as evidence through the creation, dissemination and sharing of information. Harold Leavitt’s – people, process and ITS makes it clear that it’s impossible to deploy ITS solutions, without having competent and knowledgeable people, responsible for processes and based on an overall strategic plan (Moreira and Teixeira, 2015, p.30).

From there, it is easy to understand the necessary efforts an organization needs to invest, in order to adapt people, processes and ITS to work effectively with information. Seeking improvements is the only way to win and create a competitive differential in relation to the market.

Having said that, to create analysis and diagnose knowledge management elements in Hospital XYZ we need to establish some best practices, that effectively benefits the reduction of service cycle time, lowers costs, generates more return on investments, improves patient satisfaction and encourages continuous learning of physicians, and doctors and other professionals to provide services with excellence.

According to Dalkir (2005), practices in management perspective, are those focusing on determining, organizing, directing, facilitating, and monitoring knowledge-related practices and activities required to achieve the desired business strategies and objectives.

According to Bergeron (2003, p.69) process is routine, managed, official, and based on explicit knowledge while practice, in contrast,

is spontaneous; it sidesteps management and official channels and is based on tacit knowledge and personal connections

Analyzing XYZ Hospital practices against “best practices”, is better than relying only on informal practices (where knowledge may be dispersed and unavailable in the organization) this will enables the creation, dissemination, sharing and application of knowledge within an environment and its relationship with the external environment, as well, will help to generate the article’s conclusion.

Knowledge base

A centralized database repository to store, manage and spread knowledge all over organizations’ processes and people. Nowadays, knowledge bases play a role that’s been enhanced with artificial intelligence, in different formats and serve various organizations’ purposes. For example, it can be segmented by functionality. Formats used in the analysis and diagnosis: are there: company policies; best practices for accounts receivable; marketing guidelines; internal processes for procurement?

Enhancement of intellectual capital

The practice of spending resources and time with education and training, as part of organizational culture. There must be coaching, because such a process must be guided with expertise within the organization. Are there practices strengthening loyalty of relationships within the organization, and with customers?

Environment promotes innovation and focus in new knowledge

The practice of motivating new ideas of better processes and its implementation starts with the perception of a new process based on technological knowledge followed by the analytical design of a new one, aligned with

business strategies in knowledge management. What initiatives are in place to promote innovation and focus in new knowledge?

Competitive Intelligence

According to Vella (2017, p.1), competitive intelligence is the process of collecting data, on a legal and ethical basis, and then transforming it into actionable intelligence Vella. For Ali (2021) there is a positive and significant direct and indirect relationship between issue awareness and business performance, as well as a positive and significant mediating function for Competitive intelligence between Issue knowledge and Business performance. Therefore, it is important all the organizations' efforts to be prepared to create effective competitive strategies. Is there evidence that Hospital XYZ has competitive intelligence in place?

Corporate Portals

They are responsible for providing access to employees, partners and customers with in-time relevant information helping them to perform their duties and make efficient business decisions. It is a safe environment where you can share knowledge, increase employee efficiency, improve communication, and reduce cost with communication. Is there evidence that Hospital XYZ uses corporate portals to increase efficiency, fill knowledge gaps or support learning?

Practical Communities

Being part of a community, necessarily requires collaboration, knowledge sharing and support in everyday companies' challenges. Either via forums, blogs, files, or face-to-face networking everyone can communicate to increase efficiency at work. Using groups of individuals from a different area of knowledge who share the same goals or problems, means they can spontaneously share experiences and

help themselves to solve problems and improve their performances. Does Hospital XYZ have a Portal? Does it serve communities?

METHODOLOGICAL PROCEDURES

The present study consists of exploratory research, built within a quantitative and comparative approach, to analyze and diagnose the process of knowledge management at Hospital XYZ. To help the analysis, indicators were created to check against practices of knowledge management found. Practices were checked by the authors directly, based on facts, existing documentation and processes.

FE = Formal existence in programs or activities in the organization.

IP = Programs or activities are in the implementation phase.

ANF = There are actions related to practice, but not formalized in the organization.

DNE = does not exist.

FINDINGS

Findings for each area involving knowledge management practice, will help the conclusion. According to what systems, processes, and people at XYZ Hospital were able to demonstrate:

Current practices observed

Let's start highlighting one important point with great impact on knowledge management – ERP's systems' version tailored to help hospital management (including the patient's management module), have emerged in the late 90's. Such systems are very complex, due to many interfaces that require highly qualified professionals to parameterize the system.

Before opening in 2012, the XYZ board of directors decided to purchase an ERP system; the supplier, a multinational company from which they had already been purchasing imaging equipment, among others. The

company was not an ERP developer, instead they bought it from a Brazilian group which have many medium and large customers (hospitals) with a software very well evaluated by medical users (!?!?). The point is that such doctors only knew how to evaluate the care module, and since most of them are hospital owners, they ended up ignoring what global role an ERP plays for the whole organization.

Knowledge management practices such as: organizational learning, benchmarking, coaching, institutional communication, skills management, lessons learned, mentoring, norms, and standards, do not seem to have followed so far. **(DNE – Does not exist in the Organization)**

With the acquisition of ERP by Hospital XYZ, some collaborators from administration immediately suggested the creation of a laboratory to carry out a prototype implantation, before the “go live” roll out. In this prototype, the team would have the opportunity to get to know the system, its peculiarities, and restrictions, thus being able to plan the implementation with greater success, in addition to already mapping the main processes in existing Norm SOP – Standard Operating Procedure, ISO 9000 good practices. Unfortunately, the proposal was not accepted by the executive board, even though there was enough time in the hospital’s opening schedule. To worsen the scenario, the executive board restricted the participants in the implementation team. After the opening, at the end of 2012, the Hospital started to operate with more than 85% of its capacity, and problems began to arise and increase in operational and assistance management. However, the general director of the Hospital, to minimize the problems, directed the entire IT team to support only the doctors; in addition, XYZ Hospital was forced to hire the ERP vendor’s specialists at a high cost, so that the hospital would not

“crash” its activities, causing a much greater financial loss. Between 2013 and 2016, XYZ Hospital continued with problems arising from the unsuccessful ERP implementation, the technical lack of knowledge in the cost of services provided is evident before the results of commercial negotiations in serving the clients – Hospital XYZ loses more than US\$ 4,0 million annually – once XYZ is controlled by a Health Operator, meaning that 97% of its revenue derives from that Operator; over the course of 6 years of generating losses, the impact on the Operator’s financial report becomes a major problem with shareholders, resulting in a new board in 2017. Using its administrative personnel, an audit has taken place, resulting in the following points of improvement:

- ERP System: During the implementation, the version downloaded at XYZ Hospital, was a copy of another hospital with the same size. All the time, after rollout, they use that database in all ERP modules. How can you start operating a new system with another hospital’s database?
- ERP Reports: Reports available had not been validated, this means that the data reported contains errors. The few that work sometimes bring dubious information, for example, the reports on stock balance and the consumption and stock balance report, show different stock values. For the billing, there were more than five different reports, only one was ok, the others contained divergences.
- The Vendor: User’s manuals are not user friendly. They do not teach how to use the modules or what they were meant to do. Thus, it also happened with the manuals on administrative and assistance operations that did not represent in practice how users

should act and did not even explain the objectives of each operation.

In view of this scenario, the Process Management area created a project for each area to map the processes and leave them registered in new manuals designated as SOP - Standard Operating Procedure, as well as the creation of the Norms, Guidelines and Policies. From 2013 to 2019 several SOPs were prepared.

Knowledge management practices such as organizational learning, benchmarking, coaching, institutional communication, skills management, lessons learned, mentoring, norms and standards, seemed to start, so far. (A mix of ANF (these are actions related to practice, but not formalized in the organization) and IP (Programs or activities are in the implementation phase)).

Process Management did not act, the area manager, despite training in Production Engineering, had little experience in the hospital and mainly in implementing a process management model. Process manager, besides being young (32 years old), never had an experience of this magnitude thus, he focused on solving problems that the board or some manager pointed out, but he never used continuous improvement to analyze XYZ processes; like starting from patients' admittance, as recommended by the ISO 9000 precepts. This was his biggest mistake in the Process Management area.

Process View: Each manager is only authorized to access the data and reports of their processes, which is inconsistent with the best management practices. Since the processes are continuous and an error appears from the previous process, as the manager does not understand the processes' integration, he does not feel obliged to solve it. In other words, everyone is dependent on IT technicians since the ERP was created precisely to give managers independence. There is a partial view on the hospital's performance.

Supply Management: The supply area until 2018 was divided between two managers, one responsible for the Warehouse and Pharmacy and the other, only for Procurement. Managing supply chain management in two different areas brought many problems, compared to the real concept of supply chain management integration.

In this context, stockouts and emergency purchases were a constant; as opposed to planned requisitions, there was a high frequency of reordering small quantities. After analyzing the negative results from procurement management, the XYZ board of directors decided to merge the areas. Daily, there are 5 buyers for medicines and technical material. It should be noted that it is an oligopolistic market, with government-controlled drug prices and that every hospital has a standard list of supplies for more than two thousand items.

A Corporate Portal couldn't be found, so instead, a procurement portal is used, while the industrial goods segment (goods in general) seeks solutions across borders, the hospital industry becomes hostage to the strategies of its suppliers within the country. On the other hand, if you want to seek a solution in the foreign market, you will encounter many laws that inhibit the entry of imported supplies into the country, a complicated and costly solution. And this question also applies

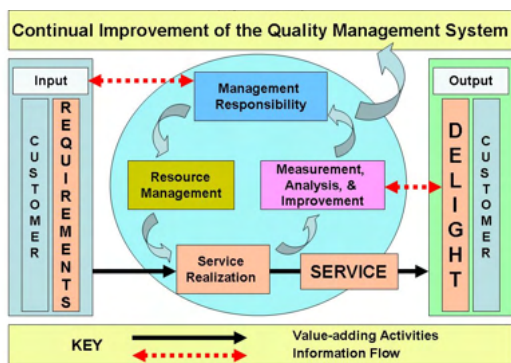


Figure 1: Process based QMS derived from ISO 9001. Source: Research gate.

to the group of technical material, since the products are of better quality and belong to a few companies. Therefore, we can say that hospitals are hostages to an oligopolistic market and to legislation. It seems that the use of the purchasing portal is only for MRO items. Despite advances in information technology tools at XYZ Hospital, following a predominant tendency in Rio de Janeiro for these organizations – the accounting process uses the absorption criterion. Systematic knowledge on hospital costs and efficiency are drivers to identify and eliminate sources of inefficiency and waste, and therefore help the creation of policies and actions to improve the use of resources. The reality found in that cost was, fragmented, incomplete, and inconsistent information, leading to the conclusion that, little is known about the real cost of Hospital XYZ services or the degree of efficiency in the application of these resources.

INTERNSHIP OF KNOWLEDGE MANAGEMENT PRACTICES. (RESUME)

Formal existence of consolidated practices in programs or activities in the organization: (FE)

After analyzing each practice observed in the areas above our conclusion is that after 2017, business as usual is changing for a new way, but we couldn't find formal consolidated practices in any knowledge management area.

Programs or activities are in the implementation phase

In this category, we observed the existence of practices like; organizational learning, benchmarking, coaching, institutional communication, communities of practice, competency management (only observed at medical staff levels), customer relationship management, lessons learned, mentoring, norms and standardization. It was noticed that

the new board is dedicating actions related to the above practices in these areas.

Having the results linked to related literature on these practices, the authors diagnosed that the new board perceives the importance that organizational learning represents for the growth of the organization's competence focusing on problem solving. Sometimes benchmarking helps them as a tool to improve processes using best practices KPI's.

Their culture (as it seems to be, independent of segment) has been used as a tool enabling them to meet some of its goals and strategies; stimulating the formation of the "communities of practice", which has the power to aid in the sharing of knowledge, in the connection of people and teams, and benefiting them through mutual learning.

As mentioned before, management of competencies, has been a commitment observed in medical staff, as well as planning, development, monitoring, and evaluation of the skills necessary for the business (once huge changes in people and human resources occurred after 2017).

Compressing the results related to the practices of this category can be affirmed that for this company they prove fundamental and demonstrate to contribute to its operation becoming more effective in at least three points: facilitating their medical staff, improving their communicative flows, and protecting their assets from knowledge.

Actions related to practice, but not formalized in the organization

Practices classified in this category are the ones in "on going" efforts of the new board. Their evidence is in a to do list of practices that could be observed during the author's interviewing of people responsible for the processes. Based on the literature addressed in the theoretical framework and the results

obtained, it could be noticed that it will take a while for formalization to occur and for practices that produce excellent results to be observed.

Although actions are intensified when using a system of knowledge and skills aimed at preserving and storing perceptions and experiences beyond the moment they occur, it means that they can be recovered later.

This category includes emerging Knowledge Management practices, which have been gaining importance in the company. Turning informal practices into formals increases the capacity of this company, to better respond to the changes demanded in its environment. Moreover, in view of the results verified for this category it is possible to affirm that the practices that compose it have average use in the company and depending on this degree of use, they are justified as practices in consolidation.

Programs or activities don't exist

Patent and trademark management as well as corporate portal, knowledge mapping and corporate education, showed no practices whatsoever to be considered. The results indicate that these practices have not been perceived according to the role they can play in the company if formalized and focused on its objectives and strategies.

Regarding the practices of knowledge mapping, it was observed that actions related to it are concerned with having a landscape of what exists within the company; subject to where it is located, who knows what, a few documents and database, making it difficult to someone who seeks to know how operations, business and activities are carried out.

The mapping of processes that point to what extent can and needs to be improved, is not formalized although sometimes they involve expressive actions associated with them, during interviews they were not present

at the level of organization that should be in an informal level.

On the other hand, the way these practices present themselves as differentials in the daily actions of the researched company; they should deserve special attention, whether from analysis, redirection, formalization or even the exclusion of actions that do not lead to the increase in the company's ability to improve its business and results.

CONCLUSIONS

Through this study, we sought response to the central question of the research, which focused on the following objective: knowledge management practices in a reference hospital (XYZ) – from diagnosis to results.

At first it can be said that the researched XYZ Hospital presents a fertile environment since 2017 (when great organizational changes were made). The existing conditions will continue to facilitate the management practices related to knowledge management.

Analyzing the results obtained, it is possible to highlight that, in general, XYZ Hospital board of directors understand the value of knowledge in the composition of its processes, and services. Although they are working hard in its corporate environment in relation to creating conditions that lead to the knowledge, in some aspects, the final diagnose based on the results obtained for all dimensions/ conditions considered as knowledge management practices, they indicate a presence of low to medium degree of best practices.

Because of these results, formal consolidated practices in any knowledge management area were observed.

Organizational learning, benchmarking, coaching, institutional communication, communities of practice, competency management (only observed at medical staff levels), customer relationship management,

lessons learned, mentoring, norms and standardization were considered in the implementation phase.

Although actions are intensified to use a system of knowledge and skills; a significant number of practices were found “on going” and a few still deserve careful attention like the Corporate Portal which will help with the training of employees and customers.

It is necessary for the new board to speed up an action plan related to categories of Knowledge Management practices considering the improvements discussed above. During this time of COVID 19, a hospital of the size of XYZ Hospital needs improvements to achieve its objectives and strategies.

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