

KNOWLEDGE MANAGEMENT PROCESS IN NURSING PRACTICE

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Abstract: The article presents the manner of developing a knowledge management model in nursing work.

The background of the study is the significant increase of clinical knowledge and the progress in technology observed in medicine. Given the time constraints and reduced absorption capacity of people to the unrestricted flow of data and information it is necessary to develop methods based on knowledge management mechanisms that provide nursing personnel with specified resource, a clear and easy to interpret knowledge, when a nurse really needs that knowledge, regardless of time and place.

There was developed the research procedure: (1) Analysis including: (a) Recognition of nursing work processes; (b) Identification of sources of knowledge and their types, shape and form; (c) Analysis of ways to exchange information; (2) Recognition of the need to improve knowledge management (3) Modeling of knowledge management in nursing in four areas: Processes, Technology, People, Environment.

As a results there was proposed a procedure to standardize knowledge management processes consisting of three stages: (1) Developing a model of information system (2) Giving context to the data and information as part of an operation that creates a base for knowledge management system, (3) Providing specific knowledge resources in automatic and mobile manner using modern information and communication technology.

Keywords: knowledge "in use"; information and communication technology; nursing work; knowledge absorption; context meaning

1. Knowledge management (KM) issues in context of hospitals - a literature review.

Today's businesses create and use knowledge, data and information at an unprecedentedly rapid pace. The use of knowledge and technology is not an option, but a necessity [1]. The very concept of knowledge, from the point of view of the management of this resource is examined from different research perspectives [2]. Two of them are deliberated below. One says about the treating the knowledge with regard to data and information management, and the information is created by adding value to data through their contextualization, categorization, analysis, correction and condensation [3]. Such an approach to knowledge draws attention to the high degree of its formalization.

The second perspective treats knowledge in terms of its attributes, such as its quality and components [2] which are the experiences, values, contextual information, expert opinions. Knowledge in this approach is unlikely to be formalized, classified into three areas: know-what, know-how, know-who [4].

In spite of the considered perspective type, its utility in the organization depends on whether the knowledge can be gained and then processed and put to good use. The key carrier of knowledge in health care organizations, which is the hospital staff is the key point [5], being a rich source of non-formal knowledge, that is quiet and implicit [6] constituting

hidden knowledge for the environment - second perspective. However, other important carriers of knowledge in the hospital is a hospital database, specialized portals, documents, written and unarticulated rules and procedures - the first perspective. They are also subject of disperse and take varied character, from unstructuralized to ordered and easy to share.

Despite the enormous importance of knowledge resources and the media in an effective and efficient hospital processes, these resources are often lost from the hospital by factors such as rotation and movement of workers, cost savings or wrongly prepared documentation. It also happens that the hospital is not aware of having parts of the knowledge acquired during many years of activity [7]. The difficulty in knowledge circulation also lies in the insufficient flow between local organizations due to the lack of effective channels of the transfer [8].

The inverse of the phenomenon described above is "knowledge explosion" [9] indicating an excess of knowledge in relation to needs. As a result, there is the problem of the balance between knowledge insufficiency or excess losing time learning or selecting it.

Another problematic area of KM is its obsolescence, especially fast in the fields of medicine and those taking up the issues of modern technology. This issue is related to another problem, namely the capacity to absorb the increasingly complex and rapidly increments of knowledge. In the context of the enormous development of treatments based on modern and complex procedures it will not be possible to acquire knowledge through traditional methods of educational path and curricula that are aging at an accelerating pace. In such a situation, nursing staff will be forced to complete their competence methods based on KM, therein they will have to be able to find, analyze and transform data into useful information [8].

These problematic areas impinge on the formation of specific risks for patients. Research conducted in the U.S. showed that 44,000 - 98,000 people die as a result of medical errors and about a million suffered from health deterioration [10]. Important causes of ill health and mortality among hospitalized patients are errors in the field of drugs [11] among which he highlights errors in naming, choice of drugs and their doses,[12] insufficient knowledge of safety rules for the individual drugs [13]. The reasons for such errors are varied, but the principal should include insufficient knowledge and skills [14, 15] both nurses and nursing students [16, 17].

The occurrence of adverse events, including mistakes treating patients is particularly true in highly variable situations in which quick and critical decisions must be made. The key factor contributing to errors is considered a lack of coordination between medical and nursing staff resulting from the lack of proper mechanisms for the transfer of information and KM [18].

Concluding the literature review in the field of KM important research problems have been identified, which are the inspiration to build the model of KM in nursing work processes. These problems are grouped by categories: processes, technology, people, environment, (Table 1).

Table 1 Problem areas in KM

Category	Problem
Processes (includes questions related mainly to the process of KM which range from its identification to resources loss)	PP1 Difficulties of knowledge location PP2 Difficulties of knowledge acquisition PP3 Knowledge disorder PP4 Knowledge loose

Technology (reflects the technical problems associated with the aspect of knowledge processing for the utility and its dissemination using ICT)	PT1 Difficulties of knowledge processing PT2 Inexplicit message PT3 Difficulties of codification of tacit knowledge PT4 Lack of proper knowledge transfer
People (concerns problems associated with limited human capabilities resulting in large part from their specific areas of expertise)	PL1 Lack of awareness of knowledge PL2 Lack of ability of selecting knowledge PL3 Lack of proper usage of knowledge PL4 Difficulties of knowledge absorption PL5 Rotation of employees with knowledge PL6 Incorrectly prepared documentation being a carrier of knowledge
Environment (concerns the KM problems that are associated with adverse external factors and the use of objective knowledge in health care)	PE1 Knowledge excess PE2 Knowledge insufficiency PE3 Knowledge obsolescence PE4 Variability of operating conditions and the volatility of knowledge

2. KM processes modeling

Modeling is a process of creating a formal representation of the selected section of tested reality, but its essence is to capture the similarities in three areas: structure, function and behavior [19].

The main objectives of the modeling process in an organization are on the one hand to understand and therefore improve these processes, in particular, KM processes, on the other hand to support the design, implementation and management of information systems, including the special case of KM systems [20].

There are two dominating approaches to the subject of KM. The first approach (App.1) is a technological approach [21] the term which means the database, intelligent systems, or ICT. This approach focuses on explicit knowledge and was reflected in the small number of publications on nursing jobs. However, they do not address the KM process modeling, and the only point to the possibility of the use of information technology (IT) and information and communication technology (ICT) in nursing practice [22, 23].

The second approach (App.2) deals with the process of creating and sharing knowledge, with emphasized role of organizational culture and workers knowledge [24, 25]. This approach highlights the importance of tacit knowledge. The considerable attention in the context of hospital activities deserves the role of organizational culture and related behavior and way of working of personnel. The two key areas of impact of organizational culture on the quality of the processes of treatment and patient care can be observed. On the one hand the hospital as a professional organization must have a high degree of standardization activities based on strict adherence to medical procedures, which require workers to specific behaviors, on the other hand one of the observed characteristics of the staff, especially the nursing staff is to implement processes based on informal behavior. The examples can be spontaneous commentaries of nurses with patients and their families, dictated by a desire to introduce an atmosphere of calm and support or means of communication among the staff, such as the surgical team based on gestures, metaphors, passwords, ensuring the effectiveness of communication between medical and nursing staff,

and thus the effectiveness of actions. It is highlighted in the literature the role of informal collaboration in the area of health care [26].

It is obvious that the above-mentioned approaches are two associated grounds, one of which (App.2) represents the contextual relationship between the information resources in the work processes, and the other of the technical execution (App.1).

The particular role of organizational approaches to modeling knowledge management processes is highlighted in the literature [27]. According to such approach, individuals can support the knowledge management process by defining procedures and rules, which has its reference to the business of health care, or where necessary set up a special team to assist. In the latter case, such operation in the hospital has no reasons. A placeholder in this case is informatics representation of that "team" assisting in the form of expert systems and knowledge repositories.

The proposed organizational approach to the development of knowledge management model includes three basic stages (a stage model of organizational knowledge management):

- (1) Initiation - preparing the organization for the implementation of knowledge management processes, in particular the preparation of employees.
- (2) Propagation - building technical infrastructure in the scope of implementation of management processes, such as the system of training, promotion, selection of ICT for communication and dissemination of knowledge.
- (3) Integration - combining knowledge, which is diverse and dispersed.
- (4) Networking stages (building networks to external entities including customers, scientific institutions and research).

Each stage has been defined in ring-fenced manner, taking into account such factors as: the purpose of the management, operation and management components.

Another four-stage model of knowledge management process modeling is described in the literature [1]. Here attention is drawn to:

- (1) Static knowledge management system that provides primary phase of KM and workflow management concerns formalized knowledge, such records, data, files.
- (2) Dynamic knowledge management system and applies to activities in the areas of knowledge acquisition, knowledge integration, knowledge storage, knowledge sharing, knowledge transfer, knowledge application, knowledge innovation, etc.
- (3) Integration of knowledge application gateway, which focuses on the interactions between the components of a knowledge management system, such as people, processes and knowledge, and which allow the use of knowledge just in time.
- (4) Intellectual asset management system that emphasizes a holistic approach knowledge management system based on life cycle represented by the unified management, evaluation and optimization of human capital, organizational capital and relational capital.

Regardless of the abovementioned approaches, most theorists state that the introduction of the principles of KM requires a transformation in the way the behavior of both the individual employee as well as the entire organization [28]. This is due to the necessity of introducing changes in the way the organization. From the perspective of KM in the field of nursing, nursing managerial staff responsible for the effective implementation of such changes plays a key role.

In light of the foregoing, the following fields of activities relevant to the modeling process and integrating KM approach outlined above have been enunciated. These fields of

activities, as in the case of problem areas are sorted out by category: processes, technology, people, environment:

- Processes:
 - FP1 Identification and analysis of processes structures in organization.
 - FP2 Defining processes' functionality in organization.
 - FP3 Document management (circulation of documents).
 - FP4 Defining rules and procedures.
- Technology:
 - FT1 The choice of IT, ICT systems.
 - FT2 Digitization of explicit knowledge.
 - FT3 Transforming tacit knowledge into explicit knowledge.
 - FT4 Designing knowledge distribution channels.
- People:
 - FL1 Using the knowledge.
 - FL2 Interpersonal communication.
 - FL3 Knowledge sharing.
 - FL4 Training.
 - FL5 Organizational culture.
- Environment:
 - FE1 The transfer of knowledge with the environment.

The identified fields of activities are of universal character. Comparing them with problem areas (see Table 1) and additional areas identified on the basis of empirical research in the field of health care organizations one will be able to define knowledge management model aimed at supporting the activities of nursing.

3. The method and the research

Taking into account the purpose and objectives of the article, methodology being representative of the current examination procedure were developed. It consists of three main stages including certain sub-stages:

S1 An analysis of the current situation:

- S11 The diagnosis of nursing work processes with particular emphasis on the participants, material resources and knowledge resources.
- S12 The diagnosis of sources of knowledge and their types, the analysis of their shape and form.
- S13 Identification and analysis of ways to exchange information in operating activity of the nursing staff.

S2 Recognition of the need to improve knowledge management in the process of nursing.

S3 Modeling of Knowledge Management Process in Nursing:

- S31 Processes.
- S32 Technology.
- S33 People.
- S34 Environment.

The methods used in the collection of information to realize the path of the research were:

- Analysis of the literature in the field of KM methodologies and supporting IT systems.
- Direct observation of work processes, including the procedures: arthroplasty, laparoscopy, as well as participation in the processes of handling of surgical

instruments. The total number of observed surgical procedures is $n=46$, where $n=7$ was hip arthroplasty; $n=1$ was knee arthroplasty; $n=38$ laparoscopic procedures. The research were conducted in $n=5$ hospitals (including public and private entities).

- Free interview, including representatives of the following positions: ward nurse, nurse, scrub nurse, medical sterilization techniques, head, medical, administrative assistant. The research were conducted in $n=4$ hospitals.
- Questionnaire for knowledge transfer in the hospital. The total number of completed questionnaire is $n=42$ (including nurses: $n=27$, other staff: $n=15$), the number of hospitals is $n=2$.
- Analysis of internal documentation, including medical records, operational techniques handbooks, manuals, catalogs, quotations, records of sterilization.

The means of documenting and processing of information obtained from field studies were photographic and video material, record the results of verbal intelligence, process mapping, descriptive statistics.

Research activities are focused on surgical wards with particular emphasis on work in the operating room. So far, research in the analyzed object has been carried out in three hospitals.

A particular dimension of surgical wards is due to the necessity to integrate two very important areas, such as medicine and technology. Activities in these areas requires access to multidimensional knowledge resources that must be updated non-stop. From this point of view, there is a strong need to improve the KM in the operation of such units.

4. The results and discussion

Generally, processes realized at surgery units can be divided into:

- main processes (basic) which are responsible for providing patient care services; these are the following processes: admitting a patient to the hospital, preoperative care, surgery, post-operative care, discharging the patient from the hospital;
- auxiliary processes, (invisible to the patient) supporting primary processes; these processes include work conditions, the management of the operation of technical infrastructure hospital (including medical equipment and surgical instruments);
- management processes, responsible for the efficient functioning of the organization; including the management of the main and auxiliary processes, in particular, human resource management, medical records management, planning and execution of emption, etc.

Processes carried out on surgical wards involve staff at all levels and divisions of the organizational structure of the hospital. At the same time the most cross responsibilities concern nurse coordinator / departmental operating room.

This multiplicity of tasks forces the use of knowledge in many resources: medical, technical and administrative. In the same time the analysis of the structure of processes and related knowledge resources indicate a high degree of dispersion which is considered at three levels: thematic distribution of knowledge, geographic distribution (spatial) of knowledge, and subjective dispersion of knowledge (an owner of knowledge).

The methods helping to locate resources of dispersed knowledge are mapping methods. These methods rest upon graphical mapping interactions occurring between the sources of knowledge. Among the methods of mapping knowledge there is the mind map, map of location knowledge, topographies of knowledge, knowledge matrices et al.

Sources of knowledge were recognized, and also the type of knowledge, its shape and form (form of presentation) in the implementation of nursing work processes were analyzed. The test result is shown in the form of a matrix (Table 2).

In certain fields of the matrix, the following code is used:

- x - a characteristic of knowledge is present in the analyzed hospital processes
- * - represents the utilization degree of knowledge sources or the degree of usefulness of the type, form and record of knowledge, as follows: * indicates a very weak, ** is the average, *** means good, **** is very good.
- r - recommended from the point of view of knowledge management area of improvement.

The matrix was based on the results of a survey concerning the identification of needs for knowledge transfer and communication in health care units, which was conducted among 27 nurses in two trauma – orthopedic surgery wards, supplemented by direct observation and unstructured interviews.

Taking into account the results summarized in the matrix above, it can be concluded that both the specified types of knowledge, as well as most forms and records form almost equally play an important part of KM in nursing work processes (cf. degree of usefulness in nursing practice). The lowest rated were (good rating) declarative knowledge (know - what) and knowledge presented in the form of a verbal description. Such an assessment in the case of declarative knowledge is dictated by the fact that more attention is paid to the treatment in the case of sickness and the need for strict adherence to procedures that are represented by procedural knowledge (know - how), rather than knowledge of the theoretical grounding characterized by declarative knowledge. However, a useful example of declarative knowledge on surgery wards is bedsore classification and symptoms of its formation. The lower rate of general verbal description compared to the records: graphic, video and audio is due to the limitations and errors of language, the lack of a clear message arising from the use of even sophisticated (often unnecessarily) vocabulary. Another factor impeding the use of the verbal description is a paper carrier and handwriting (average rating).

A matter of the degree of benefit from the knowledge resources is shown less evenly, and in many cases differently to the usefulness degree. It may be claimed that nursing staff as a team use tacit knowledge to a small degree, different in different individuals, and does not use or use very little of the most convenient forms of presentation of content that is electronic form, giving wide range of knowledge in the form of presentation videos, simulation, etc.

Similarly, non-uniformly rated was the usage and usefulness of sources of knowledge. All sources of information disseminated through information technology, such as databases, portals, video recordings are used in an insufficient way. To a small extent, staff use the manual or manuals of surgical techniques, although they are a necessary basis for the proper use and maintenance of equipment and surgical expertise. This is due to the lack of fit forms of presentation of the contents of technical capacity issues of their absorption by the nursing staff without the necessary back-substantive technical competence in the area. In addition, manuals and instructions are usually stored in the unit and in the ward nurse's office, which may cause significant aggravations with their access to more people.

In the matrix, one can notice particularly those places, which should be completed with a specific carrier knowledge or enriched with a form and character of record (symbol r). These sites were identified by analyzing in particular the disparities between the levels of service and usability of knowledge resources characteristics. The results in the matrix are

reflected in further work on modeling the processes of knowledge management in nursing practice.

Table 2 The matrix of the knowledge characteristics in nursing work processes at trauma-orthopedic surgery wards

Knowledge source	Knowledge type				Record form		Record character							
	explicit	implicit	procedural	declarative	paper	electronic	descriptive	graphic	video	audio				
patient's records	x		x	x	x	x	x					**	**	**
medical procedures	x		x		x	r	x	r	r	r		**	**	**
surgical techniques manuals	x		x	x	x	r	x	x	r	r		**	**	**
instructions for use of tools and equipment	x		x	x	x	r	x	x	r	r		**	**	**
technical passport	x			x	x	r	x					**	**	*
normative and formally-legal acts	x		x	x	x	x	x					**	**	*
employee's experience and skills		x	x	x		r			r	r		**	**	**
patient		x		x		r						*	**	**
hospital's database	x			x		x	x	x	r	r		*	**	**
informal (unwritten)		x	x			r			r	r		**	**	**
professional literature	x		x	x	x	x	x	x				*	**	*
trade portals	x		x	x		x	x	x	x	x		*	**	*
video records of surgeries	x		x	x		x	x		x	x		*	**	**
trainings	x		x	x	x	x	x	x	x	x		**	**	**
The degree of use by nursing staff														
**	*	****	**	**	*	****	**	*	*	*				
The degree of usefulness in practice of nurse														
**	****	****	***	**	****	***	****	**	**	****				

Regarding identification and analysis of ways to exchange information in operating activity of the nursing staff, the two primary methods of information exchange were identified:

1. Form of spoken messages, either in the direct or telephone contacts. In particular, the communication that occurs between the nursing staff on the same and different levels and between the nursing staff and other participants of the processes.
2. Written form messages, usually on paper.

In the studied hospitals no other forms of communication have been identified, in particular based on electronic mobile devices.

The observed communication is of a large informal dimension what reflects the specifics of organizational culture in the hospital. This on the one hand can be assessed positively, as indicates the strong relations between the hospital staff and the so-called non-technical-interpersonal skills, very important from the point of view of the integration of activities and teamwork. On the other hand, spoken messages carry a number of risks: first of all they may be lost, and because of technical reasons, not delivered on time. In addition, the strong ties between workers are found only within a given department or even within a particular group of workers in the operation. No such relationship is observed among employees from different departments or hospital units often linked to a patient's medical history. Such a situation, in the absence of other effective forms of communication, arises problems of repetition of the same tasks, generating the same information, and therefore unjustified spending of funds.

Empirical research on the functioning of surgical wards helped to define the critical needs in the context of process modeling KM in nursing described in Table 3. All the identified needs are compatible with the major fields of activities of the points of view of KM process modeling. Hence, they are aggregated into four of the categories: processes, people, environment, technology. Each of the identified needs is determined on the background of problem areas in the KM (see Table 1).

Table 3 Key needs for modeling the processes of knowledge management in nursing

Category	Need	Problem
Processes	KM processes standardization.	PP1, PP2, PP3, PP4, PL1, PL2, PL3, PL5, PL6
Technology	Knowledge resources mobility, i.e.. access to specific knowledge resources with the principle of "just-enough" and "just-in-time" for all types of processes (see Table 2).	PT4, PL1, PL2, PL3, PE1, PE2
	Customizing of forms and records of knowledge to the absorption capacity of the nursing staff with a specific competence profile.	PT1, PT2, PT4, PL4
	Continuous update of knowledge on the inside and in the outside.	PE3, PE4, PL5
	Codification and access to tacit knowledge.	PP4, PT3, PL1
People	Improving technical skills In ICT use.	ALL
Environment	Improving the knowledge transfer with the environment (identification of connection networks with the environment.	PT4, PE3, PE4

Given the above statement, the aim to model processes of KM is to create a reality where indicated needs are fulfilled, and thus problems are eliminated.

Standardization of KM processes is to develop a formal model that represents a logical relationship system of data and information made available in a mobile manner in a specific context of the nurses' activity using the of ICT tools. In simple terms it can be said that this is a gradual and orderly sequence of actions to transform the processes traditionally realizing nursing jobs in the knowledge-based processes.

There are three basic steps of standardizing KM processes: (1) Developing a model of an information system with stored, structured data and information, according to the processes of actual activity, (2) Giving the context to data and information as part of an operational which forms the basis of a KM system, and the data and information related to contextual form of knowledge, (3) Sharing certain knowledge base in an automatic and mobile mode, i.e., in a specific place and time, depending on the situation context. It turns out that the contextual and quick access to proper information has high importance for nurses because, as the research indicated, navigating within information resources causes the occurrence of deviations [29].

Figure 1 shows a fragment of the functional model of an information system (database), which is the first stage of the standardization process. This model shows the modules of the data and information needed to carry out specific work processes. The content of the modules was based on the determined information needs which were diagnosed during the analysis of basic processes (Modules Patient, Medical treatments, Nursing care), auxiliary processes (module Exploitation) and management (modules: Staff, Legislation).

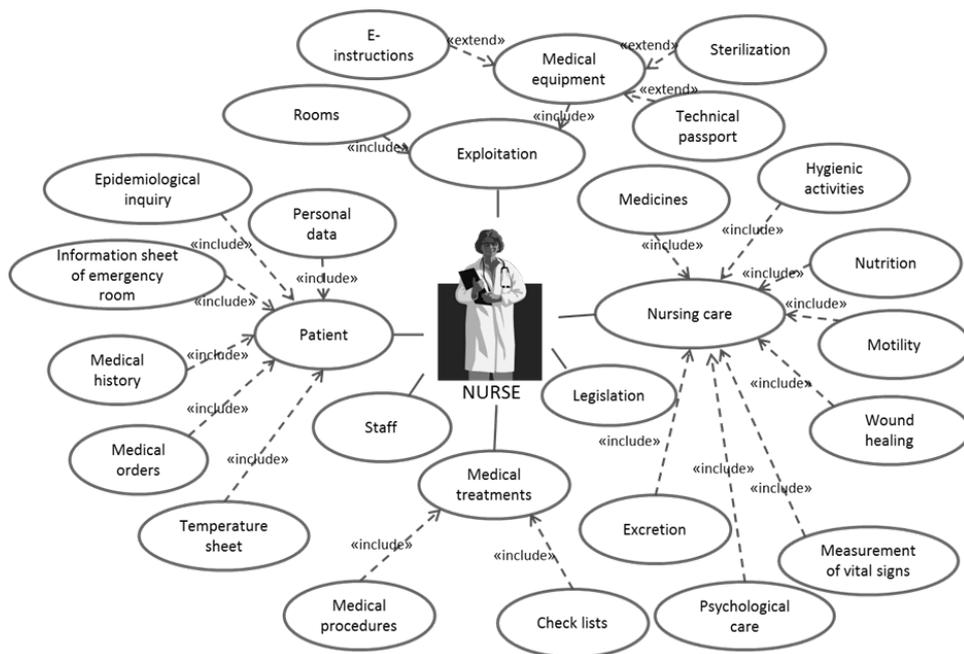


Fig. 1. Functional system model

KM occurs when data and information contained in the database are given a specific context meaning [30] (second stage of standardization process), thus creating a repository of knowledge.

The third stage of the standardization process of KM is the development of mechanisms for automatic access to contextual knowledge resources at the demand for it. Access to knowledge occurs automatically and intuitively using specific ICT (see category according to the needs of Technology) like RFID technology.

However, there are significant barriers to the implementation of the principles of KM are two areas related to human resources (People): (1) the approach of staff to share knowledge and implementation of the various forms of communication (2) the implementation of ICT in improving the processes of nurses work. These barriers stem from the fact accustomed to certain patterns of action and often not having experience in the use of new, lesser-known electronic devices. Hence, the implementation of this system should be preceded, at least in the basic training covering issues of using ICT devices. Here one may see that the role of the nurse leader that his authority and leadership skills and human resource management can support and encourage nurses to change the operating mode of the traditional work processes based on KM.

Apart from the sharing knowledge between the people, KM in the nursing process requires improvement of knowledge transfer with the environment, which constitutes a major source of knowledge. The tools in this area are primarily based ICT tools for communication and exchange of information via the Internet [31]. Examples of such tools are web portals, forums, webinars, online training specialist. The important issue here is finding reliable information especially from unauthoritative Web sites [32]. Just as in the People key figure-creating relationships with the environment and the transfer of knowledge is a nurse leader. The main task of the leader is the ability to find the gaps in the leads, skilful selection of knowledge in the jungle of information online resources and then provide useful knowledge to staff.

5. Conclusions

In light of the foregoing, there is no doubt that one of the ways to improve the process of treatment and care is to model the process of KM in the hospital, which is in essence the process of providing the right information to relevant personnel in a timely manner [1] this demand is particularly important given the shortage of nursing personnel and the lack of a significant influx of young cadres [33].

Assumptions presented in this article concern knowledge-based nursing staff management undoubtedly requires new skills, represents a major challenge for modern nursing, including education. The competence of nurses as leaders will have to be supplemented by a knowledge manager role. One of the key tasks of the manager will be to find gaps in the current knowledge of nursing practice. Lack of knowledge is in fact a critical factor that may have negative consequences both to nurses as well as patients [34]. Work processes on surgical wards were the subject of research. Here, the requirements in terms of knowledge are particularly large, given that clinical knowledge, acquired by nurses during the learning process is not sufficient and should be complemented by technical knowledge related to proper maintenance and operation of the complex and constantly modernized surgical equipment.

Model of KM developed and described in the paper, helps identifying these gaps of knowledge, and determines the path of efficient and effective use of knowledge in practice, treatment and patient care. As a base to the model data and information management is indicated, but all the activities associated with this should consider the skills and abilities of man, for whom knowledge is created and one should effectively and efficiently handle this

knowledge. In parallel to the technical issues related to the creation of facilities based on modern ICT in the process of KM, activities managing the development of an appropriate organizational culture and the associated changes in employee behavior should be taken up. These changes are designed to run processes of assimilation and processing of information by the workers themselves, as well as the creation of new knowledge and sharing it within the organization. An important element in this process is to identify workers with extraordinary abilities and special powers, who may be at the heart of the intellectual resources and who, through personal interaction with other employees will help to create a knowledge-based organization. A manifestation of this phenomenon is the organizational learning by increasing the organization's ability to capture and process and gain knowledge workers resulting in benefit to patients [18] and the entire organization, and which may be in particular time reduction processes, reduced costs and better medical care [35].

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