The Main Subsystems Involved in Defining the Quality Management System in a Hospital

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Abstract: The hospital is the most important organization in health field, so they have to improve the quality in all the activities deployed. A very suitable way to show the hospital's preoccupation for quality of health services is the quality management system certificate according ISO 9001/2000. In understanding the architecture of the hospital quality management system is necessary to decompose this system in subsystems and analyze each separately: the managerial subsystem, the human subsystem, the social subsystem, the technical subsystem, the informative subsystem. The relationship between those subsystems leads to the continuous improvement of quality in health services.

Keywords: quality; management; hospital; health services.

If we are to take organization as an open system, which function as a cell, in its entire complexity, we may say that at quality's execution participate all the actors, activities and hierarchies. In order to understand the architecture of the quality management system in a hospital, it is necessary to decompose it in subsystems and analyze them separately: the managerial subsystem, the human subsystem, the social subsystem, the technical subsystem, the informative subsystem, the computerized subsystem.

The Human Subsystem

The success of an organization in the competitive field of market economy is greatly determined by the human factor. The human subsystem consists of all the employees of the sanitary organization, no matter their hierarchic level, because they use procedures in the development of their activities and it is very important for them to be involved in the assurance of the quality. The adequate mentality regarding quality must be internalized by all the employees, no matter their hierarchic level, from the top management to the operative one. This is possible only if the staff is properly motivated.

Identifying the sources for staff motivation involves for the manager to know the level on which, at a certain moment and from the point of view of satisfying certain types of needs, its employees/subordinators stand. The way which to be taken by the manager can be successful only if he systematically combines two methods:

- the method based on the material component – refers to the pecuniary aspect, which is the employee's wage.
- the method based on the moral component – it is based on the appliance of some moral stimulus (such as: the celebration of a personal event, with the participation of the entire collective, results' appreciation by the manager).

Motivation is a personal issue, specific to each individual and varies between certain limits from person to person, being influenced by many factors.

Humans become motivated for a certain activity if they are consulted on the issues and actions of which they are part. Motivation involves contribution's maximization that the persons are willingly to offer for the organization's development, the result consisting of energies, actions and behaviors' orientation to the established objectives' fulfillment. As staff's motivation is being realized at a higher level, as the self-control of the work grows.

Organization's success depends on the managers' ability to develop human relations, to admit and evaluate staff's merits with whom he collaborates.

The motivation of the human resources presents the following advantages:

- Personals' acknowledgement on the mission to accomplish
- The growth of the each employee's level of preparation.
- Developing a proper social climate.
- Reducing the costs caused by the lack of quality.
- Accomplishment of the organization's objectives.

A successfully modality to involve the staff in the accomplishment of the quality's objectives is the team work. Organizing the work in groups appeared in order to cope with the demands regarding the grown of the organizations' flexibility and effectiveness in the competitive battle. Moreover, works' organization in groups allows the execution and control of the risky situations and also the reduction of the reticence regarding changes. In a group are involved representatives of many interested sectors, and the problems are being put into debate from multiple points of view, considering each person's opinion. Of course that there are certain limitation, part of the work team, because the simply reunion isn't sufficient to deal with a problem and the availability's manifestation of each individual to work in a team is absolute necessary.

In health services the team has always been the main form to develop the medical activities. No matter the level on which the health care (primary, secondary or tertiary) is being developed, the teams are interdisciplinary, being composed of doctors, medical aids, biologists, pharmacists, biochemists, physicians, psychologists, technicians, nurses, and they have greater or smaller dimensions, accordingly to the specific of the provided medical assistance. It is important for the team to include also other employees of the medical unit, such as, medical secretary, administrative staff (economists, jurists, accountants, merchants, statiscians, custodians or cleaning keeper). They must be part of the team and their activity is important for the medical and social effort of the rest of the team.

Traditionally, in a health care team, the leadership role is of the doctor. But, nowadays, in the context of the sanitary reform, the tendency to increase the role and responsibility of the medical assistance in providing health services is obviously manifested.

In order for a health care team to achieve its goal in providing high quality services, the following conditions must be fulfilled:

- Clear definition of each team member's role.
- All the members must be represented in the frame of the team.
- Each member must be part of the general team's aim.
- Efficient accomplishment of the duties by each team's member.

The main changes which may appear when it comes about team work are the following:

- The organizational configuration corresponds to an evolution in the sense that the individual activity is to be understood as a collective one and tends to become independent from the technological characteristics.
- The accomplishment of the structural changes is influenced by the top managers' orientations.
- The changes that the group organizations involve, imply a certain hierarchy of the specific structures and the reduction of the distances between the hierarchical levels.
- The change imposed by the team work, is inefficient if the systems of programming and control of the productive activities as those for classification, evaluation and remuneration of the employees won't be changed.

The efficient use of the human resources is essential for the success of the organization in the sanitary filed, which, firstly, works for the individuals, depending on the right way of defining the specific attributions and responsibilities.

The Managerial Subsystem

Management is defined as a process gathering integrated social and technical functions and activities, which appear in a formal organizational medium, with the aim to accomplish the previous established objectives by using human, material, financial and other nature resources.

The managers from the medical system are subjects to many challenges, part of the changes which take place in the field of organizing and providing health services, of the new financial politics and strategies, of the technical progress on the medical field. The doctors must be interested about the followings:

- Establishing and accomplishing organizational objectives.
- Human resources coordination.
- Efficient management of the material and financial resources.
- Creating an organizational medium in order to assure a maximum efficiency in developing medical and backing activity.

The managers influence the way in which the activity in the medical organization is being developed by means of the decisional process.

The managerial component is the one who controls and influences the other components of the quality management system, and represents the way in which the practice, procedures, protocols and politics are being established and maintained.

This subsystem is due to the strategic, operational (of processing) and project planning paying respect to Deming's cycle of continuous preparation – PDCA (Plan – Execute – Verify - Act).

The Social Subsystem

The social subsystem consists of the individual duties management, having a basic principle, that of the respect for the human.

Between the components of the quality management system, the most important for the success of the organization, but at the same time the hardest to accomplish, is the social component. There is a tendency, among the managers from the sanitary system, to neglect the cultural role or the organizational values. Still,

the social system exists and shows its negative or positive influence on the activities developed in those institutions.

The social subsystem includes, according to Douglas McGregor's definition: "the structures of compensation, the symbols of power, the relations between humans and in the frame of the group, the benefits, each persons' skill and style, organizational politics, power structure, tooling the norms and values, and, generally speaking, the entire human component of the organization".

The social system has the greatest impact on the team work, on the motivation, creativity and taking the risks. The way in which people communicate and react accordingly to the others and their work, depends on the way that they are led. If the employees show negative attitude, the manager should quickly identify them, should try to educate and redirect them, and when those steps are unsuccessful they should dismiss them.

The Technical Subsystem

Nowadays, the sanitary assistance imposes the existence of a highly competitive technical endowment for the diagnoses and therapy of the patients. By means of the technical services of investigation, laboratory tests, anesthesia and intensive therapy, monitoring and using the computerized technology, the medical activity can't be limited only to the primary medical process.

Alongside, the hotelier and food aspects represent essential components of the medical healthcare, which may contribute to patients' satisfaction.

In a building as the hospital is, with almost 400-500 beds, in which can be found between 1000 and 3000 persons (patients, escorts, sanitary and auxiliary staff, students and so on) there must be created functional, efficient and logical circuits even from the beginning of its design. In order for these circuits to be realized, in the hospital must be only one centre of circulation which to gather all the entry of the building and from whom to have access, by means of the elevators and stairs, to all the other component elements of the hospital.

The Informative Subsystem

A hospital is a system in which information plays an essential role, the staff being able to collect them, classify them and manipulate them. Such an institution Microsystems of information are being easily created, founding themselves in a dynamic relation.

There are many models of documentary information systems used in developed countries and characterized by a great reliability, which may be considered and implemented in the frame of the Romanian sanitary system. Still, the characteristics of the Romanian sanitary system must be considered and these foreign systems must be adapted to the national specific.

Before proceeding to the creation of an info-documentary system or to the adaptation of a foreign one, all the categories of information must be known and characterized.

The equilibrium between all the debated pieces of information related to the sanitary system is essential in order to assure a high value of the informative system, because the deficit as the excess of information leads to inefficiency of the developed activity. A system which has no sufficient active and potential pieces of information will be a poor system, as the system which operates with too many potential pieces of information and lesser than the active ones will be dull and difficult to use.

In order to avoid any risk regarding information's security, it is imposed to protect the access to information by adequate measures:

- Organizing the libraries with floppy-disks and compact disks, starting from the frequently savings and recopies of the data and documents, and keeping the stands-in in different places from the originals (in cases assured against fire and adequate to the keeping medium of the information)
- Knowing by the folders and data's banks users the procedures which guarantee data's confidentiality
- Registering, consulting and deleting data by using authorized terminals.
- Allowing access to the authorized terminals only to certain persons.
- Limiting the access to the places where the memory is located and to the types of information well-circumscribed
- Allowing the indirect access to secret folders, only by means of well-protected program.
- Organizing the account so as the possibility of introducing a witting error in the software or in the executable program to be avoided.
- The permanent training of all the persons who use computer regarding security rules.
- Introducing a system to control the system of security measures.

The Computerized Subsystem

The interest shown for the technology regarding information is bigger and bigger in our country, as the development in the field is being accomplished due to the user's demands.

In the last period of time, the specialists of the sanitary system convincingly say that computing represents a greater step in the efficiency of the medical services. The idea of the direct dependency in satisfying patient's easy access to information is strongly affirmed. Therefore, a sanitary system which works for the patient's benefit must assure quick and easy access to information.

In the sanitary system, measures are being taken in order to realize a national computerized health system, which to gather all the hospitals, family doctors, pharmacies and the responsible institutions of the state in organizing and developing this domain. In the frame of this system, the access to information will be secured and will be accomplished accordingly with the user; helpful pieces of information for doctors will be gather, things to be known about patient's care, and also maps of medicine to lead to the improvement of the patients' health state from the hard-accessed areas can be realized.

The importance of developing the domain can be found in the system of electronic auctions, in the possibility of achieving electronically the secret medical file and in the continuous medical preparation of the medical staff.

An investment in the field of IT&C can reduce the costs and contributes to the efficiency of the medical act, improving the life quality of the patients.

The integrated software solutions, which can be found at the point of equilibrium between accessibility, quality and cost, with the possibility to adapt to the characteristics of the activity developed in the hospital, offered by certain companies of IT&C, are successfully used abroad and recently in our country.

A computerized solution for the hospital will allow to the institution the administration of a large quantity of complex information regarding the following aspects:

- The patients (file for presentation/reception, transfer between the sections, exit file, paper records, alimentation papers, laboratory analyses, diagnoses – including DRG, medication, medical handling, functional explorations, radiology exams, telediagnosis).
- The report and statistics needed by the directorates of public health, health assurance homes, National institute for health research – development Bucharest.
- The cost per patient/doctor/department/hospital.
- The management of the goods stocks necessary to the activity progress (medicines, laboratory reagents, sanitary materials, medical instruments, medical apparatus, materials for cleaning and keeping).
- The decisional factor at the level of hospital's top management.
- Human resources management.
- Financial and remuneration activity.

The result of each phase is transferred to the next phases, so as to increase the quality of the interaction between client and medical services provider.

An integrated computerized system will allow the introduction of the specific data, the necessary statistic reports and the costs for the services provided in the departments of the hospital.

In order to maximize the benefits, it is necessary for the technology to be extended to all the providers of medical services. These benefits can be obtained by operating the computerized systems of the institutions (hospitals, Clinique, individual offices, health assurance homes, pharmacies).

Because computerizing involves high costs and the financial resources of the public system are limited, a way to solve the problem of computerizing is that of a public-private partnership.

Another way to obtain great benefits is that of "externalization of the activity of production and managing of the documents". In a study made by Xerox Business Services it is shown that collaborating with a specialized partner can provide a reduction of the costs between 10% to 30%.

Alongside the risks, the access to the newest technology and resources' release for other activities is the main advantage of the externalization.

Due to the closed relation of the subsystems, part of planning, respect for humans, collecting data related to sanitary activity, leads to the increment of the efficiency of the system, so to the continuous improvement of the quality, obviously reflected in the patient's satisfaction.

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