

The implementation of a quality management tool at a university hospital

IMPLANTAÇÃO DE FERRAMENTA DE GESTÃO DE QUALIDADE EM HOSPITAL UNIVERSITÁRIO

IMPLANTACIÓN DE UNA HERRAMIENTA DE GESTIÓN DE CALIDAD EN UN HOSPITAL UNIVERSITARIO

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ABSTRACT

The objective of this study was to understand the perception of a multidisciplinary health team regarding the implementation of a quality management tool at a teaching hospital. The setting of this qualitative study was the University Hospital at University of São Paulo (HU-USP). Participants were seven workers from the Committee for the Implementation of the 5S Program. Data collection was performed through semi-structured interviews and the statements were analyzed according to Janesick. Two categories emerged from the statements: The perception of the multidisciplinary team participating in the implementation of the 5S Program and Factors that affect the implementation of the 5S Program. The categories were interpreted following the Donabedian framework. This study permitted to understand the perception of the multidisciplinary team regarding the implementation of a quality management tool. It is believed that the present findings will contribute with evaluating the 5S Program at the HU-USP, and provide the necessary support for reorganizing activities at that hospital.

KEY WORDS

Quality management.
Health evaluation.
Nursing.

RESUMO

O objetivo deste estudo foi compreender a percepção de uma equipe multidisciplinar de saúde na implantação de uma ferramenta de gestão de qualidade num hospital de ensino. Trata-se de uma pesquisa qualitativa, cujo cenário foi o Hospital Universitário da USP. Participaram sete profissionais da Comissão de Implantação do Programa 5S. A coleta de dados foi realizada através de entrevistas semi-estruturadas e as narrativas foram analisadas segundo Janesick. Extraíram-se duas categorias das narrativas: Percepção da equipe multidisciplinar participante da implantação do Programa 5S e Fatores intervenientes na implantação do Programa 5S. A interpretação das categorias ocorreu mediante o referencial de Donabedian. O estudo permitiu compreender a percepção da equipe multidisciplinar em relação à implantação de uma ferramenta de gestão de qualidade. Acredita-se que estes achados possam contribuir para a avaliação do Programa 5S no HU-USP, fornecendo subsídios para a reorganização de suas atividades.

DESCRIPTORIOS

Gestão da qualidade.
Avaliação em saúde.
Enfermagem.

RESUMEN

El objetivo de este estudio fue comprender la percepción de un equipo multidisciplinario de salud en la implantación de una herramienta de gestión de calidad, en un hospital de enseñanza. Se trata de una investigación cualitativa, cuyo escenario fue el Hospital Universitario de la USP. Los participantes fueron siete profesionales de la Comisión de Implantación del Programa 5S. La recolección de datos se realizó a través de entrevistas semiestructuradas y los testimonios fueron analizados según Janesick. De tales testimonios fueron extraídas dos categorías: Percepción del equipo multidisciplinario participante de la implantación del Programa 5S y Factores intervenientes en la implantación del Programa 5S. La interpretación de las categorías se realizó utilizando el referencial de Donabedian. El estudio permitió la comprensión de la percepción del equipo multidisciplinario en la implantación de una herramienta de gestión de calidad. Se cree que estos hallazgos pueden contribuir con la evaluación del Programa 5S en el HU-USP, brindando ayuda para la reorganización de sus actividades.

DESCRIPTORIOS

Gestión de calidad.
Evaluación en salud.
Enfermería.

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INTRODUCTION

Health institutions should aim to respond to their users' needs and expectations. Therefore, it is extremely important that their activities be based on solid philosophical and methodological premises, capable of guarantee high quality standards.

Many definitions exist for the quality concept. In the health sector, however, they refer to the consolidation of a high care standard.

In practice, care quality is based on the assessment of three dimensions - structure, process and outcome⁽¹⁾.

Quality is the factor all stakeholders in health actions are concerned with and closely involved in, with a view to constant improvements in practices, with a view to satisfying those people depending on these services⁽²⁾. It can also be considered as the relation between the benefits achieved and the reduction of risks, with users serving as the reference framework. These benefits are expected to respond to the parameters in a given situation and to determine their possibilities and limits against the background of available resources and existing social values⁽³⁾.

Likewise, effectively responding to users' needs and expectations exactly means guaranteeing service quality; therefore, the set of service characteristics an organization offers needs to be adequate to comply with this mission⁽⁴⁾.

In fact, quality should clearly be understood as an assessment parameter, without which the service health institutions offer would be strongly compromised. In this context, assessing health service functioning means investigating, establishing and improving quality concepts, as well as stimulating the development of higher care standards. Acknowledgedly, health program and service assessment is increasingly appreciated in its function of mapping and delimiting institutions' functioning. To the extent that it attempts to provide precise data on the range and extent of health programs and actions, it directly contributes to the choice and (re)formulation of technical-administrative procedures.

Assessment aims to clarify procedures, enhance efficacy and efficiently permit decision making on what these programs are performing or influencing. Thus, it involves systematic information collection on program activities and outcomes, human resources and products specific people have at their disposal⁽⁵⁾.

From this perspective, the expression of the value judgment would be the core of the assessment. To issue this judgment, however, desirable parameters are needed for each object that needs to be assessed, which can depend on the assessor's individual subjectivity or experts' consensus on each of these objects⁽⁶⁾.

The search for these parameters results in paradigms, which are standards and criteria that can be expressed through pre-established knowledge or remain implicit in the judgment of those performing the assessment.

Hence, it can be affirmed that assessment is a management function applied in the decision process, which provides information with a view to achieving increasing health action or service rationality and efficacy levels⁽⁷⁾.

In this perspective, quality tools emerge as a relevant instrument to carry out evaluation processes and, mainly, to achieve quality in health services.

Quality tools are techniques used to define, measure, analyze and propose solutions to the problems interfering in the good performance of work processes⁽⁸⁾.

Countless tools can be used to put in practice and consolidate an institution's quality and productivity management process, including: 5S Methodology, PDCA Method, Pareto Diagram, Flow chart, Dispersion graphs, Control diagram, Checklist, Cause and effect diagram, Histogram and Brainstorming.

In this study, developed at the University of São Paulo University Hospital (HU-USP), we will focus on the 5S Program, whose main goal is to promote changes in people's behavior, working towards the company's complete reorganization through the elimination of obsolete materials, identification of materials, constant workplace cleaning, construction of an environment that enhances physical and mental health and maintenance of the established order, with a view to improving organizational performance.

This program does not guarantee quality for the organization: it is a mere tool associate with the quality philosophy that helps to create the conditions needed to put in practice continuous improvement projects. It is a system that organizes, mobilizes and transforms people and institutions⁽⁸⁾.

The name 5S represents the initials of five Japanese words, adapted to Portuguese in the form of five senses. Each of the senses establishes one step in the methodology, which evolves and culminates in the achievement and maintenance of the pre-established requisites⁽⁹⁾.

The five senses are: 1) SEIRI – SENSE OF SORTING: separating the useful from the useless, eliminating what is unnecessary; 2) SEITON – SENSE OF SETTING IN ORDER: identifying and setting everything in order, so that anyone can easily locate it; 3) SEISO – SENSE OF CLEANING: keeping an environment clean always, eliminating the causes of dirt and learning not to dirty; 4) SEIKETSU – SENSE OF HEALTH AND HYGIENE: keeping a work environment always favorable to health and hygiene; 5) SHITSUKE – SENSE OF SELF-DISCIPLINE: turning these attitudes and method into a habit, transforming the 5S into a way of life.

...assessing health service functioning means investigating, establishing and improving quality concepts, as well as stimulating the development of higher care standards.

At the HU-USP, the 5S Program started to be implanted in 2001. On that occasion, the Hospital Accreditation Commission was created extra-officially, which the 5S Program was part of as a tool adopted to mobilize the hospital structure. Initially, a manual was created to explain the program, with a view to raising professionals' awareness; later, a normative instruction manual on the 5S Program was developed to establish this program at the different hospital sectors. After the dissemination, interested sectors enrolled to start the operational phase, after which maintenance audits were performed. These activities were developed in 2002 and 2003.

In 2004, the 5S Program Commission was officially established through HU-S Decree No 490/04, after which the material was fully reviewed and updated, the phases were reapplied and all data were computerized, using a comparative database.

The abovementioned Commission comprised HU-USP professionals who took interest in this quality management proposal. Commission members were responsible for raising awareness among all hospital workers, breaking barriers among different units and maintaining a forum for the program's integration and expansion, as well as to keep up motivation for its continuation. With the institutional collaborators' commitment, the 5S Program has been disseminated and put in practice at the HU-USP since then.

OBJECTIVE

To understand a multidisciplinary health team's perception on the implantation of a quality management tool at a teaching hospital.

METHOD

A qualitative study was developed.

Ethical aspects

The research project was forwarded to the Nursing Department, the Research Ethics Committee and the Research Chamber of HU-USP, in compliance with legal requirements. Data collection started after these entities' agreement with the study.

Thus, study participants received further information about the research aims and signed and received the Free and Informed Consent Term, elaborated in compliance with Resolution 196/96 on the ethical aspects of research involving human beings⁽¹⁰⁾.

The research context

The study was carried out at the HU-USP; this branch of the University of São Paulo serves teaching, research and community service purposes. Its mission is to offer medium-

complexity multidisciplinary care, based on the epidemiological profile of the Teaching Health District Butantã in São Paulo City.

Research participants

Study participants were seven professionals who were the members of the 5S Program Implantation Commission at HU-USP. The selection occurred through a meeting with these professionals, where the research aims and the data collection process were informed, inviting them to participate in the study.

Data collection

Data were collected between December 2007 and March 2008 through semi-structured interviews, which were scheduled according to the study participants' availability. At the end of each interview, the researcher completed the Interview Script, which contained the guiding questions, additional data on the participants and the researcher's impressions. The following guiding questions were used for the interview: How did you experience the implantation of the 5S program at HU-USP? What did the institution intend to achieve through the implantation of the 5S Program? Did you perceive changes in the work processes when the 5S was implanted? What facilitating and complicating elements did you meet in the implantation of the 5S Program?

On that occasion, the researcher informed that each participant would be identified as E1 until E7. Interviews were recorded and transcribed by the researcher.

Data organization and analysis

Data were collected and analyzed, seeking significant events taken from the participants' narratives. Among different existing possibilities for data analysis, the method proposed by Janesick⁽¹¹⁾ was chosen, while Avedis Donabedian's Assessment Model was adopted as the theoretical framework.

RESULTS

The data that emerged from the narratives revealed the following categories and subcategories:

Participant multidisciplinary team's perception on the implantation of the 5S Program

In this first category, the participants' perceptions on the implantation of the 5S Program are presented. Some excerpts showed that the implantation of the Program aroused the collaborators' interest in the quality theme.

I think the 5S program is a first step towards quality management, in which you present the concept of organizing and facilitating as a part of the work. I believe it offers a first step to start and work with quality management tools [E7].

This statement revealed that the implantation of the 5S favored visualization and greater contact among different institutional areas, inferring that quality management tools permit the establishment of a diagnosis and process improvement.

Factors intervening in the implantation of the 5S Program

The second category presents the factors considered as intervening in the implantation of the 5S program. Next, two subcategories are described that emerged from this category.

Aspects facilitating the implantation process

Aspects indicated as facilitators were subdivided in six items:

Institutional goal

Almost all participants considered the implantation of the 5S Program as an institutional goal a facilitating factor. Three conditions are needed for a change to be successful: strong support from the upper administration; involvement of the entire organization in each of its aspects and improvement of all activities that are not accomplished as initially recommended⁽¹²⁾.

Due to the fact that the program has the Superintendency's support, it was coordinated by one of the advisors, we managed to get access to the information we needed and it was also easier to obtain resources [E2].

Thus, when the actions and program established at health institutions derive from institutional goals and all collaborators' involvement, chances of success are bigger.

Change in organizational culture

This item refers to the changes that occurred in the organizational environment when the 5S program was implanted.

The organizational culture can be assimilated and modified through different levels: level of visible artifacts; level of artifacts governing people's behavior and level of unconscious premises⁽¹³⁾.

The level of visible artifacts contains the division and use of the physical area; the way people dress; the adopted standards of behavior: documentary contents, among others. With regard to the values governing people's behavior, these include information on the organization that can be obtained through the analysis of documents and people's testimonies.

Unconscious premises determine how people perceive, feel and think. Hence, to the extent that these values, shared by the group, lead to certain behaviors and the latter show to be adequate for problem solving, the value is gradually transformed into an unconscious premise on how facts really are.

I believe that the main goal was exactly this change in the organization's culture. We perceived the changes; we stopped to observe and pay more attention to all processes. Each time we were implanting a new sense, we studied the reason for doing it in that way, if it really had to be like that, as well as what the best way would be. Then we ended up reconsidering some work processes [E2].

The implantation of a quality program can fit into the three levels described above, as the 5S permits modifications in visible artifacts – when it changes the visible area, improving space distribution and layout, in behavioral artifacts – when it permits changes in internal communication and work processes and, finally, in unconscious premises – when professionals incorporate the new proposal, establishing commitment.

Involving the multidisciplinary team

Another aspect appointed as a facilitator was the multidisciplinary team's motivation. Motivation can be considered an impulse towards satisfaction, with a view to growth, personal and, consequently, organizational development, what causes, canalizes and sustains people's behavior, without being the sole influence on their performance level⁽¹⁴⁾.

As a facilitating element, I see that most employees, about 90%, is truly involved in this quality program, because they have all noticed that it works [E1].

The multidisciplinary team's work showed to be articulated. Team members sought understanding and mutual recognition through cooperation and synergy among different sectors. This fact is in line with the two dimensions of the teamwork process, which are the articulation of actions and professionals' interaction.

Sensitization of institutional collaborators

The institutional collaborators involved in the implantation of the 5S were sensitized and stimulated to actually participate in this process.

When, on the occasion of changes or the introduction of new work proposals, institutional collaborators are not effectively sensitized, the team experiences difficulties to accept the new and can start to perceive the proposal as an imposition from the top.

Besides, another enriching factor was the fact that the group that was part of the 5S implantation participated in a course for Auditors and, later, visited other services, in order to verify how they were working and using this tool [E2].

Exchange/communication among different services at the institution

The introduction of a quality program favors greater exchange and, consequently, better communication among an institution's different areas, as one of the foundations of quality is parity among services. The statement below ratifies this assertion.

Hospital employees started to have more contact due to the higher goal of working with quality. And this exchange was enriching, to the extent that it favored the relationship among employees from all sectors of the institution [E3].

Aspects complicating the implantation process

The elements considered as complicating were sub-categorized into:

Collaborators' initial resistance to changes

The collaborators' initial resistance to the changes the 5S proposes appears as a complicating aspect, although participants mentioned the team's involvement among facilitating aspects. This fact may have derived from part of the workers' initial resistance. This resistance is related to the following factors: fear of the future and facts threatening the present; fear that previous events that negatively affected people will repeat themselves; refusal to bear the onus of transition out of fear of taking uncertain tracks⁽¹⁵⁻¹⁶⁾.

In this context, the people who will conduct the change need to be prepared to understand the diagnosis, planning, intervention processes and resistance to change. This preparation needs to take three aspects into account: systemizing and problemizing their own experience with change; broadening the perspective of their own profession or specialty through multidisciplinary in the analysis of the same phenomenon, so as to facilitate the understanding and control of collateral effects of the change process and constant improvement of their attention to some human values in dealing with diversity, in order to avoid unnecessary conflicts and resistance.

Thus, particular attention should be paid to the agent of change's role, who is responsible for the decisions affecting this organizational process. In this sense, the importance of the Commission members in the implantation of the 5S program should be highlighted, serving as agents who modify the organizational context.

The groups resisted the implantation. When the first group training sessions were held, it was very difficult. As for the difficulties faced, I think that was some professionals' resistance to the changes [E5].

Lack of involvement by the medical team

The lack of involvement by the medical team was also mentioned as a complicating element. As medical professionals act in different institutions, mainly in care delivery, they show difficulties to take part in the programs adopted by different health establishments.

Hence, without all institutional professionals' participation and involvement, quality will not turn into a reality, which is why people need to be motivated to improve the production process, aiming for quality, as the latter depends on individual and collective efforts⁽²⁾.

Another complicating factor was the fact that the medical team did not get involved, this factor not only complicates but also discourages the rest of the team, as all members are working towards this and it seems that the physicians are visitors at the hospital, while they are actually employees like any other, they are part of the team, they work and have to keep their space organized, as they also make use of everything [E1].

Insufficient quantity of materials/equipment used to improve the program

This item indicates the fact that the lack of materials and equipment partially compromised the evolution of the 5S' implantation.

The basic goal of material administration is to insert the resources needed in the production process with quality, adequate numbers, correct timing and lower cost. Administering these resources is considered highly complex at the institutions, as spending on these resources represents approximately 15 to 25% of current expenses⁽¹⁷⁾.

In view of the above, material resource administration has been a source of concern in public and private health organizations. In the former, due to budget constraints, greater consumption and cost control is needed, so that professionals and users do not have to do without the necessary material. In the private sector, subject to market rules, resources have to be managed at competitive prices in comparison with other organizations⁽¹⁸⁾.

Overload of the Institution's Maintenance Service

The overload of the HU-USP's Maintenance Service during the 5S implantation process is clearly identified in the participants' narratives. According to them, the increased activity demand as a result of the 5S Program, in combination with the lack of an adequate physical area to store available equipment and materials were responsible for the overload at the service under analysis.

Another difficulty was the lack of space to store the material that should be selected to discard the units... So there was no physical space for all this material, and the institutional material had to be kept in a safe place until all necessary paperwork had been done, so that it could be donated to other services afterwards [E2].

Assessing the installed capacity is fundamental to diagnose the potential of the available structure at a given location or service. According to the authors, to put in practice a new program, one should know not only whether pertinent physical space is available, but also whether adequate human resources are present⁽³⁾.

DISCUSSION

To analyze the categories and subcategories found, in this research, Avedis Donabedian's reference framework

was adopted, who is considered the forerunner of quality research, as he developed an important conceptual base to assess this theme in the health sector.

The choice of Donabedian's model was due to the fact that its premises include structure, process and outcome aspects – corresponding to the notions of General Systems Theory (input-process-output), with a care quality focus. It should be highlighted that, to achieve this goal, the model emphasizes the use of quality tools and methods.

Quality is the achievement of greater benefits to the detriment of lesser risks for users, benefits which, in turn, are defined in function of what is achievable according to the available resources and existing social values⁽¹⁹⁾.

Quality dimensions can be identified in the different contexts they are inserted in, through the establishment of appropriate criteria for each situation, accounting for its specificities and, at the same time, maintaining an internal logic, as they are interdependent, in a movement from the local to the global.

Quality can be defined as the satisfaction of collaborators and users' needs, who should be heard about the systematic assessment of health professionals' attitudes, and also about the impact of treatment processes on their health⁽⁴⁾. In addition, a first issue in the definition of care quality is that it does not represent an abstract attribute, but is constructed by the assessment of care through the following triad:

Structure: implies institutions' relatively stable characteristics, such as: physical area; human, material and financial resources and organizational model; includes funding and training for health professionals working at the health services;

Process: related to the set of activities developed in production in general and, in the health sector, in the relations established between professionals and clients, ranging from the search for care until diagnosis and treatment; the analysis can be accomplished from a technical and/or administrative viewpoint;

Outcome: is the achievement of desirable characteristics for products or services, picturing the effects of care on the population's health.

In this study, aspects related to the structure, process and outcome dimensions were found in the categories that emerged from the participants' narratives.

In the structural dimension, issues related to physical, material, financial resources and organization were observed, as stated below.

The fact that the 5S exists ends up restructuring the other hospital commissions as well, the waste, standardization, permanent material commission for example, in short, it affects inventories, the maintenance sector. So, the 5S influences several other sectors and other types of commissions involving quality and, therefore, I really think it is important that change occurs in the work process [E4].

With respect to the process dimension, it was observed that factors related to sensitization, training and communication in the multidisciplinary team stood out.

The area's relationship is the base for these things to happen, as well as internal communication and people's inter-relationship. When everyone goes for it, understands the goal and see that it will be good for the area, work flows [E3].

At the start of the program, the Superintendency's advisor was involved. She offered training for the group, brought other trained professionals to constitute this team, in an informative way and attempting to sensitize the team [E5].

With regard to the outcome dimension, the main elements that stood out were related to the impact of the program's implantation on the institution, on workers and, consequently, on service users.

Over time, we started to have more contact with the proposals of the 5S and learned to work with it; so, the final result ended up positive [E1].

I had a very important experience in the implantation of the 5S Program at the HU. It was the opportunity to broaden my view on the entire hospital. It could observe how people worked at their sectors and also that, independently of the sector, the program can be put in practice [E4].

In the health sector, it is believed that workers and users' satisfaction comprises assessments of structure, process and outcome dimensions of the services offered, which are therefore fundamental to provide feedback to the programs developed in health institutions.

The quality concept puts forward the constitution of a normative model to assess health services, capable of monitoring and inducing an increasingly favorable calculation between benefits and risks. Hence, the quality of health care is defined as an ideal arrangement of a wide-ranging information set, present in the structure, process and outcome⁽²⁰⁾.

A study⁽²¹⁾ appoints the importance of collaborators and users' participation in the conception, production and assessment of health services, emphasizing that an assessment model should answer the following questions: Does the existing infrastructure respond to collaborators and users' needs? Are processes occurring adequately? Are the achieved outcomes good? Are internal and external clients satisfied with the services offered?

In this scenario, it should be highlighted that the best quality assessment strategy uses indicators representing the three approaches (structure, process and outcome). Consequently, the analysis of these research categories based on Donabedian's model revealed the positive influence of the 5S program's implantation.

FINAL CONSIDERATIONS

This research permitted understanding a multidisciplinary team's perception in the implantation of a 5S Program at the HU-USP.

Two categories emerged from the participants' narratives, which were: the participant multidisciplinary team's perception in the implantation of the 5S Program and Intervening factors in the implantation of the 5S Program: facilitating and complicating aspects.

The measures this program recommends, which were adopted at the research institution, aroused the collaborators' interest in the quality theme. In this sense, the researchers believe that quality management can influence health professionals' way of action, seeking the efficiency and efficacy of its work processes.

With regard to intervening factors, the adoption of this method as an institutional goal was fundamental for its successful implementation. Another aspect that was considered positive was the possibility of interaction between different hospital areas and the articulation with other quality programs adopted by the University of São Paulo.

It was also observed that the team's sensitization for the implantation of this proposal was successful. Permanent assessment of the entire process is needed with a view to improvement after it is put in practice.

With regard to complicating aspects, some collaborators' initial resistance stood out, as well as lack of involvement by the medical team and the overload for the maintenance service.

The adoption of Donabedian's model in the interpretative analysis of the categories made it possible to visualize the findings in the structure, process and outcome dimensions.

In view of the above, these study results can contribute to the reformulations that become necessary in the context of Donabedian's triad, supporting the reorganization of the activities developed in the 5S Program.

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