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## SUPERVISION IN RADIOLOGY: PRESCRIBED WORK AND THE REAL

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**Abstract:** The objective of this study is to analyze the activities of the Supervisor of Applications of Radiological Techniques (SATR) in a radiology service in Santa Catarina. The research is qualitative, exploratory and is a case study. For the development of the research, the Ergonomic Analysis of Work (AET) was used, being approached the analysis of the activities. It can be concluded that there are divergences between the prescribed and the real work, as well as the professionals' lack of knowledge about how to proceed regarding the SATR function, and various demands of the work process. In addition, the roles of SATR and Radiological Protection Supervisor (SPR) are confused.

**Keywords:** Supervision, work, radiology.

## INTRODUCTION

Ergonomics has a systemic view of the service, trying to bring about improvements that impact the environment, the dynamics of the worker and also the service offered to the patient. Organizational ergonomics addresses service quality issues. It concerns:

optimization of socio-technical systems, including their organizational, policy and process structures. Relevant topics include communications, [...] temporal organization of work, group work, participatory design, new work paradigms, cooperative work, organizational culture, network organizations, telework and quality management (ABERGO, 2000).

The organizational ergonomics bias can be addressed in the management of a radiology service. In this service, demands that influence customer service can be observed, such as: equipment operation; training and qualification of professionals; available inputs from the sector; appointment scheduling; patient profile (age, ambulation factors, cognitive issue, among others); types of waste; time for completion and delivery of the report.

The radiology sector works as a system. In this system, numerous processes occur, that is, there are transformations of inputs (inputs) into outputs (outputs) with added value. In these processes there are transformations, feedbacks to improve the service provided, as well as process repeatability. The patient goes to the service to perform an exam. After undergoing the process, he will have an image with a report. The value to be delivered at the end is the information on the physical condition (anatomy and/or physiology) of the patient.

For the benefit to be delivered in the best way to the patient, the sector's flows must be in perfect working order (scheduling, supplies, training of professionals, equipment in perfect condition). In addition, it is necessary to investigate the types of waste that exist, and work to minimize them; that is, it is necessary to analyze the processes and optimize them.

In radiology there are at least five professionals linked to management: one legal person; a coordinator or general manager (usually an administrative or nursing person); a responsible technician (doctor or dentist); a Supervisor of Applications of Radiological Techniques (SATR) who must be a technician or technologist in Radiology; and a Radiological Protection Supervisor (SPR).

Among the different management professionals, the SATR is a professional who works dynamically with different people and service systems. He works with patients, managers, doctors, technicians and technologists in Radiology, nursing staff, administrative staff, biomedical and other professionals, that is, he is a mediator in the service. It can be said that it is one of the "fundamental pieces" for the good management of the sector.

The literature barely addresses the activity of SATR. Research only mentions the professional, however, there is no specific

study on his performance. Considering its role in the radiology service, and the little literature, there is a gap to be explored. For this study, the Ergonomic Work Analysis (AET) will be used - which is an analysis method that seeks improvements in the work environment; among its steps there is the analysis of activities, which will be addressed in this research. This work aims to analyze the activities (prescribed and actual) of the SATR.

## **MATERIALS AND METHODS**

This research is characterized in terms of its approach as a qualitative research; in relation to its objectives it is exploratory and in relation to the technical procedures it is a case study. It is approved by the Ethics Committee with opinion number 1,557,323, being carried out in a Diagnostic Imaging Center belonging to the municipal public health network of a city located on the coast of the state of Santa Catarina.

To understand work, it is necessary to study the worker and the reality that surrounds him. In the case of supervision, it is necessary to understand who the worker is, what context he is in, as well as aspects of the tasks to be performed. During the research, several demands were observed (according to different workers and patients), and several process mappings were carried out (using Business Process Management, PDCA Cycles and a Lean Healthcare perspective), always seeking continuous improvement in the delivery of value.

The study was organized in different stages, initially presenting the sector and demands, reports from professionals and patients and later the applied research through the analysis of the activities (prescribed and real) of the SATR, from 2016 to 2019, and the analysis of data in the period from 2020 to 2021. The objective of this study is to analyze the activities of the SATR. Next, ergonomics,

activity analysis and management will be discussed; and then the search results.

## **ERGONOMICS, ANALYSIS OF ACTIVITIES AND MANAGEMENT**

Ergonomics comes from the Greek *ergon* (work) and *nomos* (law, rules), it is a “science of work” (MONTMOLLIN; DARSESES, 2011, p. 25), which studies the interactions between “human beings and other elements [. ..], and the application of theories, principles, data and methods to projects in order to optimize human well-being and overall system performance” (ABERGO, 2000). It has two currents: the American one, known as human factors, is centered on the characteristics of human operators; and the French, which is focused on the activities of operators (MONTMOLLIN; DARSESES, 2011, p. 11).

For the authors, the French current, considers ergonomics as “the global analysis of work situations, aiming to improve them”. For them it is necessary to study the particular task, and the way in which the activity is performed. In the search for the global improvement of the work situation, the question is: who must do what; how this is done; is there any way to make this better? In other words, it is necessary to think about work procedures, as well as the transformation of the organization and the development of workers’ skills (MONTMOLLIN; DARSESES, 2011 p. 11).

The term AET began to have greater visibility in Brazil, from the 1990s, when a new publication of the Regulatory Norms of work was regulated, being expressed to employers to carry out the ergonomic analysis of work (FERREIRA, 2015, p.8).

AET has the following phases: demand analysis; task analysis; activity analysis; diagnosis and recommendations. The first phase comprises the analysis of demand. It is necessary to define the problem to be

analyzed. For this, it is necessary to know the different actors in the process and identify the understanding of the various parties involved.

Work analysis requires, initially, the distinction between what is prescribed work and what is real work. There is a need to distinguish between task and activity. Subsequently, there is the analysis of the task, which studies what the worker must do, that is, prescribed work, as well as the environmental, organizational and technical conditions necessary for this accomplishment.

Then there is the activity analysis, which considers “how” the prescribed task is performed (actual work behavior). According to Guérin et al. (2001, p. 16) the analysis of activity is: “the set of phenomena [...] that characterize the living being performing acts. These result from a movement of the whole of man (body, thought, desires, representations, history) adapted to this objective”. Activity analysis is relevant, as it differs from the Taylorist approach; the real work and the prescribed work are studied (FERREIRA, 2015, p. 10).

The Prescribed Work is related to what is formally specified, either in writing (instructions, notes, regulations, etc.) or orally. Its about:

- Quantitative objectives: number of items to be produced, dossiers to be dealt with, deadlines to be met, patients to be washed;
- Qualitative objectives: defects to be avoided, presentations to be respected;
- Procedures to follow (since Taylor, it is always the most important aspect of the prescribed work): assembly sequences, repair modalities, air-ground communication procedures;
- rules and norms: some, not being explicitly specified, do not cease to be prescribed, often causing sanctions in cases of non-compliance. This is the case of the cultural and social conventions of work collectivities. (MONTMOLLIN; DARSESES, 2011, p. 52).

In addition to the aforementioned items, the prescribed work also presupposes conditions: adapted places, machine, tools, various devices in working conditions and, more generally, a tolerable physical environment (MONTMOLLIN; DARSESES, 2011, p. 53).

Real work is what really happens on a day-to-day basis, with the reality of working conditions. What workers do is about:

- to quantitative and qualitative objectives: the real work is expressed here in terms of performances, performed or not;
- procedures: real work is expressed here in terms of behavior (the terms actions or operating modes are sometimes used) more or less in accordance with the prescriptions. Human errors are most often interpreted by hierarchies as the result of not respecting prescribed procedures. (MONTMOLLIN; DARSESES, 2011, p. 53).

It is important to remember that the prescribed work does not correspond to the real one. This is because the professional often does not have the skills and/or aptitudes to perform the work; material conditions are not always adapted to your needs. Activity analysis is a difficult domain to be studied, as the activity is often apprehended through behaviors, it is a logic of actions.

For Guérin et al. (2001, p. 26), the work activity is:

[...] the central element that organizes and structures the components of the work situation. It is a response to constraints determined externally to the worker; and at the same time is able to transform them. [...] The technical, economic and social dimensions of work only effectively exist as a function of the activity that puts them into action and organizes them.

Diagnosis and recommendations are the final steps of the AET. In this work, the analysis of activities will be approached, with emphasis on management. Management can be understood as the act of managing

something. For Shanhong (2001, p. 88) management is linked to “the effectiveness of identifying, acquiring, developing, solving, using, storing and sharing knowledge, in order to create an approach that transforms and shares tacit and explicit knowledge [. ..] (author’s translation)”.

Among the management approaches, there is one of the model that was used by hospitals and nursing services: total quality management (TQM - Total Quality Management), (ROCHA; TREVIZAN, 2009, p. 241). According to the authors:

companies and institutions of the most varied branches of health begin to provide the product/service that the client wants, and not what they want the client to want, thus increasing the competitiveness among themselves and, as a result, the excellence of each one.

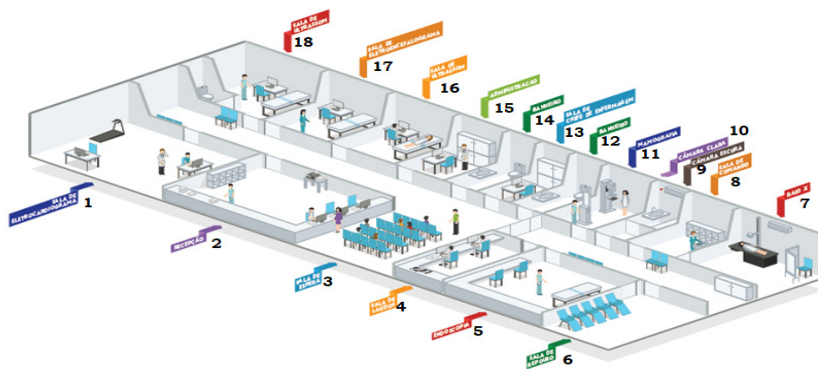
Thinking about improving the Radiology sector, management is studied from the perspective of the SATR.

## RESULTS AND DISCUSSION

Demand analysis requires knowing the actors, processes, environment, among others. A drawing of the sector was initially carried out, in Figure 1.

The X-ray sector is located in an environment that includes a reception area, Waiting Room, Report Room, Administration Room, Light and Dark Camera Rooms, Mammography, as well as X-Ray and Command Room. The mammography room was deactivated during the research period.

Subsequently, a survey was carried out to know the stakeholders of the sector, which are: patients, administrative technicians, X-ray technicians, radiologists, doctors of other specialties, information systems, equipment, materials, warehouse sector, coordinator, directors, health manager, people management sector, among others. Observing the different actors, it was observed that there were demands from different origins:



- |                           |                  |                                |
|---------------------------|------------------|--------------------------------|
| 1- Electrocardiogram Room | 7- X-ray room    | 13 - Nursing leadership room   |
| 2 - Reception             | 8 - Command Room | 14- Bathroom                   |
| 3 - Waiting Room          | 9- Darkroom      | 15 - Head of Administration    |
| 4 - Report Room           | 10- Camera Light | 16 - Ultrasound room           |
| 5 - Endoscopy             | 11 - Mammography | 17 - Electroencephalogram room |
| 6 - Rest Room             | 12- Bathroom     | 18 - Ultrasound room           |

Figure 1 – Diagnostic Imaging Sector.

Source: Authors’ collection.

from colleagues in radiology, from processes involving information technology, doctors, physical environment, administrative professionals, from the SATR itself, among others.

These demands are linked to problems, which are linked to the performance of processes such as: repetition of exams; waste (of materials and time); radiation exposure; problems regarding the quality of the service provided to the patient; lack of punctuality in carrying out and delivering exams; little flexibility in the schedule; problems in carrying out the SATR activity; lack of knowledge about management; queue on the waiting list; culture of “putting out fire”, among others. In addition, it was noticed that the different members expect something from the service, that is, it has a “value” to be delivered.

In order to know a little about what the different actors think about the service, it was asked about the delivery of value in the service, and what quality service meant for patients (A), reception professionals (B), technicians (C), SATR (D), among others. We also talked to professionals in coordination (E) and management (F).

In the conversation with patients, it was noticed that for them the important thing in the service is to be attended. Quality is “good service; be attended when necessary (A1)”; “it means paying attention (A3)”; “is to be accessible in a short time. I spent more than 12 thousand reais because I needed emergency care (crying) [...] it’s having access close to people [...] you need people with sympathy (A5)”; “I use SUS for everything [...] quality is having care [...] is respecting the being (A6)”; management has to improve [...] the population grows and the service shrinks [...] it is necessary to increase the service [...] good service completes everything (A7)”; “I use the SUS for everything [...] the workers are attentive [...] what takes longer are the

consultations and the time to return the exam [...] quality is good service, speed (A10)”; “I have nothing to complain about [...] helpful staff, smiling [...] they are human with people (A13)”; “It is necessary to improve the issue of delay for surgery, for exams, for medical care [...] I am unemployed, and it is difficult. [...] It takes human people, education by the person you are caring for (A17)”.

One of the reception professionals (administrative) reported “there is a need to have good service, adequate environment, equipment that works properly, trained employees”. For him, the radiology service could improve in terms of equipment “[...] We need training, qualification, improvement in the structure [...] and proximity to management (B1)”.

For X-ray technical professionals there were several reports:

- “The radiology service needs to undergo a renovation, improve physical issues, corrective and preventive maintenance of the equipment. Productivity is as expected. But the first question is to improve physical structure (MAGGI and TERSAC, 2004, p. 80). As it is a public sector, everything is tied together, as there is a lot of bureaucracy. We do the best we can within what we have. Quality comes down to the patient having the service available, having the quality of the exams (correct diagnosis) and us assisting them in the best possible way [...] (C4)”.

- “The service is well provided by the professionals. I see managers as distant, dispersed, and not collaborative. I see the user in need. Quality boils down to the good diagnostic quality of the exam (quality control, equipment conditions, technician training, physician training) and user satisfaction (C3)”.

Most of the professionals who work here try to do the best they can. I see managers who are a little lax, distant and sometimes indifferent. I understand that there are laws,

budget laws, and not everything can be done when something happens, because of bidding. However, there are simple things that can be resolved quickly. [...] The coordinator tries to do things according to his availability, but he depends on the manager. [...] I feel sorry for the user. I see him as someone who pays their taxes, and sometimes comes to beg for something that is rightfully theirs. I see them as a toy in the hands of the public administration. Some professionals seek to fulfill the needs of the user, but they do not always succeed. The quality of the service is good service, agility, efficiency, education, empathy, and satisfaction of the user's need. The motivation is when I go to sleep and when I remember work, knowing that I was able to help people [...] make them feel welcomed. The working conditions discourage me [...] the physical structure (C2)".

SATR reported "I see the sector that embraces the demand of a city, but with precariousness in the sector. When we serve the patient, we serve well. But when we need a demand from someone else, we get stuck (delay in the report) [...] We don't have enough equipment to serve the public. Sometimes we technicians deviate from function to meet demand. I see that the secretariat wants to solve the final problem, but they don't see the intermediate need of the workers. For example: they fit a patient, but do not observe the need for professionals to speed up the report. It is a lack of concern to come to the sector to know the reality. As for the patient, most are for check ups; few are those who urgently need it. The service to have quality needs empathy, humanized service, management, the flow has to flow, all sectors must be interconnected (know how things work). There would have to be more training, inputs to work with support; sometimes there is a lack of apron to make available to the patient; lack of communication, guidance to patients. There

is often an overload of professionals, which influences the low quality of patient care. There is a delay in maintenance, which discourages workers, and in the end, it is the patient who suffers. In addition, there are other demands for the position I hold (D1)".

Regarding coordination, different coordinators and managers in the sector passed. Here are some excerpts related to them:

"I don't understand much about radiology. I need help to have improvements [...]. Let's talk to the specialties and technical part of the system to see what we can do to improve scheduling. Not everything depends on us. It depends on the collaboration of other sectors. We really wish we had a better place to offer you and patients, but it doesn't just depend on what we want (E1)".

"I don't know much about radiology. I don't know about technical issues of the equipment, about the need for the quantity of schedules, deadlines in the quality control part. I don't understand much about dosimeters. I needed something to facilitate my interaction with Radiology. [...] It's a lot of detail in radiology. [...] I don't know much about management tools. We try to resolve the demands as they reach our hands. Can you help me? (E2)".

"As a manager, I don't know much about the sector. I know they need improvement, but I need very concrete and explicit data and demands to put on the agenda at the meeting. There is no way for us to know everything if the demand does not reach us (F1)".

It must be noted that only in 2021 the service underwent structural changes, receiving new machinery and improvements in physical issues. As for the demands of agendas, different suggestions were presented throughout the research, resulting in improvements in the scheduling of exams, reducing the waiting time for reports and also reducing the repetition of exams, which

can be observed in the research by Pereira et al. (2016). Lopez et al. (2019), Pereira et al. (2020).

The next item will address the analysis of SATR activity.

### **PRESCRIBED ACTIVITY OF THE SUPERVISOR OF APPLICATIONS OF RADIOLOGICAL TECHNIQUES (SATR)**

The SATR exercise has a specific resolution, which is the number: 11 of November 11, 2011 of the National Council of Technicians in Radiology (CONTER), which, in parts, are established in table 1.

In most services, the SATR performs, in addition to this function, the activities of

Technician or Technologist in Radiology, which includes performing radiological examinations.

### **Actual SATR Activity**

It is observed that on a day-to-day basis, the SATR performs the role of the X-ray technician regarding the execution of exams (concept map represented by figure 2), and also the attributions of the SATR during the work period (Table 1), however, he does not always have enough time to develop all activities. To respond to letters, it takes time to read documents, search for information (with people, laws and other documents), and sometimes it requires moving from one sector to another.

[...]Article number one. The work of Supervision of Applications of Radiological Techniques is the responsibility of the Technologist or Technician in Radiology.

[...]

Art. 9th. The supervision of Radiological Techniques will occur within the legal working hours of the indicated worker.

Art. 10th The Supervisor of Applications of Radiological Techniques who temporarily leaves the radiology service, for a period exceeding 60 (sixty) days, must communicate this fact to the respective Regional Council, in writing, within 10 days after the 60th day of removal.

[...] Art. 12th The duties of the Supervisor of Applications of Radiological Techniques are:

I - supervise and guide the work of Application of Radiological Techniques in the place where he exercises the profession of Technician or Technologist in Radiology;

II - ensure compliance with the provisions contained in the code of professional ethics, and, within the scope of its activities, must inform the Regional Council of any verified infraction;

III - check the service and shift schedules of professionals to meet the technical and legal criteria of the sector in which they work;

IV - inform the immediate supervisor about any existing problems with equipment, radiation emitting sources, accessories and radiological protection equipment related to the workplace;

V - inform the Radiation Protection Supervisor the occurrence of any fact that may influence the levels of exposure to radiation or risk of accidents;

VI - record defects in equipment, radiation sources, accessories and radiological protection equipment, as well as calls and perform maintenance on the facilities;

VII - guide and demand the disclosure of the monthly result of the reading of dosimeters for individual use, so that it is visible and accessible to all professionals, evaluating the results in order to require action in case of abnormalities;

VIII - supervise the internship of Technicians and Technologists in Radiology and the attendance of students in training courses for Technicians and Technologists in Radiology in their respective sectors in accordance with Resolution CONTER No. 10/2011 that regulates the internship;

IX - verify the conditions of use of radiological protection equipment and accessories.

Table 1- Excerpts from CONTER Resolution No. 11 of November 11, 2011.



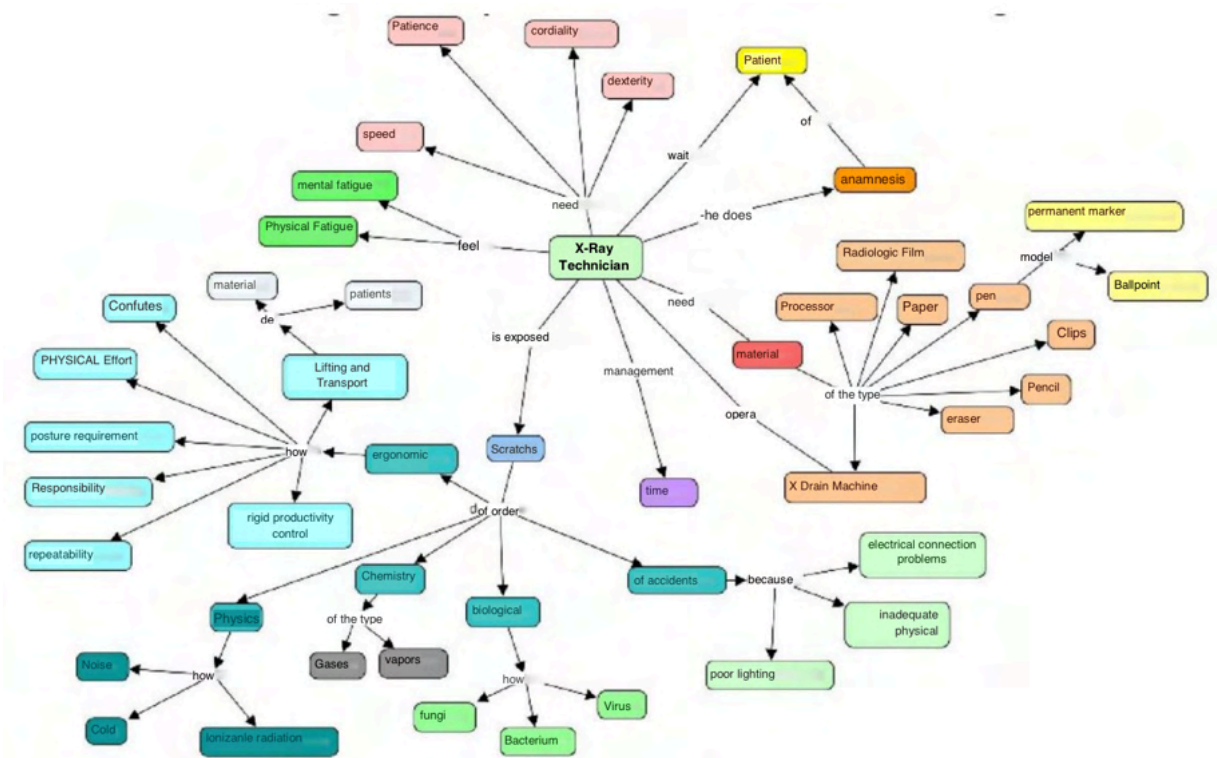


Figure 2 - Radiology technician conceptual map.

Source: the authors.

During the research, SATR had to leave for health-related reasons, and there was a clash over who would perform the function. Many claimed not to know where to start in supervision; having difficulty understanding legislation, and others did not want to be legally responsible. In the private service, depending on the complexity and financial resources of the service, the SATR often has an exclusive function, with little workload in carrying out exams, or even without the exercise of attributions related to the execution of exams; however, in the present research it was not the reality.

The exercise of SATR entails mental, physical and emotional exhaustion. In the sector in question, there were practically no standards in the procedures, except for the list of exam routines. It was observed the need to create POPS, flows, the need to establish a

study for professionals (continuing education); need to talk to the manager, personnel from the purchasing sector and related sectors; and also the establishment of demands in common agreement with SATR and coordination, administrative sector that coordinates the scheduling of exams, manager, as well as the development of something that facilitates the management of SATR in radiology, that is, knowledge management is necessary, and establishment of management processes.

Another issue observed is that the activity of the SATR is confused with the activity of a general coordinator and also of an SPR. The Radiological Protection Supervisor has its attributions established in RDC 330/2019. The coordinator is usually someone from the nursing sector or someone connected to the administration area.

Regarding the SATR attributions, the

actual work of each item will be described. In the sector, it was observed that the act of “supervising and guiding the work” (Item I of article 12) of colleagues has some barriers, as there is reluctance on the part of some to comply with what is requested. There is an industry protocol as well as a book protocol, but not all perform. The requested (prescribed) and the effected (actual) end up differing.

When we know the complexity of the reasoning that a low-skilled worker can apply in his daily work, we can hardly accept the hypothesis of ignorance, of a blank slate on which too many trainings are based. It is only on the basis of previous knowledge, on cognitive models used so far, that we can make someone evolve in the correct use of a new technical device. But to know how someone thinks it is also necessary to be interested in it, to give them the words to say it (WISNER, 1994).

The interest of professionals in improving their work and collaborating with the sector is something that must come from each professional. And when necessary, the SATR needs to give feedback. Sometimes people need to be reminded of what they already know, and make adjustments.

The issue of professional ethics (item II of article 12) must be a work in conjunction with coordination. Dealing with people is not simple, as it requires observance in relationships with colleagues, superiors, as well as patients. There are patients who go beyond the limit of respect towards the institution (sometimes they verbally attack professionals; they want the report immediately and have difficulty understanding that this is not always possible), as well as professionals who do not know how to behave in a work environment (not observing rules, disrespecting the institution and colleagues).

Item III, referring to scales, did not have many problems, except for the delay of professionals, a fact that was resolved by the

coordination through conversation. With regard to items IV and V and VI, it is observed that reporting equipment problems is simple. Sometimes tools such as whatsapp, letters, memos, e-mails, and also reports via the shift handbook are used. However, the repair of accessories and equipment is something that takes more time, as coordination with other sectors does not depend only on reporting; but it depends on other sectors such as Maintenance, Purchasing, Board approval. Depending on the problem, in the public service, it is necessary to make a bid, take prices and all this takes time, that is, there is bureaucracy.

An observation made in the sector is that the SATR carries out attributions that are not its own, but of the SPR (whose attributions are established in RDC 309/2019), thus resulting in physical, mental and emotional exhaustion. Regarding item VII, in the state of Santa Catarina, the dosimeter data are published and displayed on a wall, and are inserted into the SIERI monthly. There was a report that the doses were changed only once, and an investigation was carried out as described in the legislation in force at the time (Ordinance 453/98). The problem observed regarding the dosimeters is of an administrative nature. There is difficulty in sending by mail (loss of protocol, forgetting to send it by the drivers sector), resulting in delay and stress.

Regarding the supervision of interns (item VIII) there are two situations. One is the supervision of a SATR linked to the place where the internship is being carried out, and another is the supervision of a SATR linked to the educational institution. In the observed period, there were no problems with the interns.

Regarding the verification of the conditions of use of radiological protection equipment and accessories (item IX) it was observed that the items undergo visual inspection, and

the inspection by scopy/images is carried out when an external company comes to carry out the quality control tests., as well as radiometric survey. Regarding these tests, there is not always a routine (planning) for their performance. Sometimes it is done in periods well after maturity. It was observed, therefore, the need to have something that facilitates this process.

Among the observations made in the analysis of the activity is that there are demands for knowledge management (KM), as well as knowledge centralization. To do KM it is necessary to know the cognitive structure and also the feelings of the users (MOYA; SANTOS; MENDONÇA, 2009, p.30). For Grotto (2001, p. 35), it is understood as “the process of promoting and managing the generation, sharing, storage, use and measurement of knowledge, experiences and specializations in organizations”.

KM is an action linked to a series of activities and permeates all areas involved with health. For Rozenfeld et al. (2006, p. 98) the organization that “learns is the one that has the skills to create, acquire and transfer knowledge and is capable of modifying its behavior in order to reflect new knowledge and ideas”.

In this process of understanding work, differentiating the prescribed and the real, it is observed that work is something dynamic, which varies from one society to another, and can only be understood in its context of analysis (MAGGI and TERSAC, 2004, p. 80).

In the perception of Ferreira (2015, p.9) AET is a method of analysis that seeks to improve working conditions, differentiating itself from other methods that seek to increase productivity or product quality. This fact may be an expected result, but the main objective is to improve working conditions. And for that the activity is a central concept.

For a better understanding of the work, it

is necessary to study how professionals make decisions (PELLEGRIN et al. 2021 p.1), and to know what they know about management, how they develop it, in order to minimize errors in the service (SCHNITTKER et al. 2019, p.70). Considering the sociotechnical model (people/organization; technologies and processes) as a living system, there is a need for it to be studied from different perspectives of ergonomics, as well as collaboration from other areas of knowledge in order to enrich the analysis and service improvements (CARAYON, 2006, p. 534).

Management education in the healthcare environment is necessary. It is necessary that professionals know and know how to improve the work process. Smith et al (2020, p.1) show the importance of culture, infrastructure and leadership support in the development of health research in terms of learning and developing sustainable changes in the system. It takes motivation, commitment of professionals, as well as the development of tools and skills related to management.

## **FINAL CONSIDERATIONS**

The Diagnostic Imaging service works in an integrated manner with the various processes and professionals involved to provide safe care for both the patient, companions and visitors, as well as for radiology, nursing, physicians and other professionals.

Bearing in mind that the “Value” to be delivered is information about the diagnosis and/or health treatment, it is necessary to ensure that all images are acquired according to defined protocols, guided by the scientific literature; as well as the execution of therapies according to established norms and literature. It is necessary that throughout the process (from the appointment of the exam and/or treatment to its final stage) there is quality. The service is responsible for defining

policies, strategies, objectives and goals that guarantee quality and safety for patients, in order to manage and monitor process risks and opportunities for improvement.

In order to exercise the SATR function, it was observed that: good interpersonal relationships; knowledge about ethical as well as technical issues; know current legislation; knowing how to dialogue (many problems can occur due to lack of communication); have continuing education. In addition, although he does not need to have the fundamentals of management in his training, there is a need for knowledge of its principles. The prescribed work often differs from the real one, and some limitations in the service could be minimized if there were the use of

management tools and methodologies, as well as the reflection of what is prescribed and the real activity, developing the phases of the AET.

It is also observed the need to have courses that help the SATR professional to develop their activities. As a suggestion for future studies are: systematic review of management tools used in radiology, development and implementation of a tool that helps the work process (the management of the SATR; as well as the coordination in the mapping and analysis of work processes), and contribute to improving the delivery of Value to the Patient; verification with the Board of Radiology the possibility of developing courses and tools that help the SATR.

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