

# Patient safety culture in central sterile supply departments: nurses' perceptions



*Cultura de segurança do paciente em centro de material e esterilização: percepções de enfermeiros*

*Cultura de seguridad del paciente en un centro de materiales y esterilización: percepciones de enfermeras*

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## ABSTRACT

**Objective:** To know the perceptions of nurses with experience in Central Sterile Supply Departments about the safety culture.

**Methods:** A qualitative study developed with 12 nurses from hospitals in the South and Southeast Brazilian regions, with data collected in March 2021 through online interviews. Bardin's content analysis was performed with the support of the IRaMuTeQ software.

**Results:** The interpretations were classified considering the following aspects: indirect care provided by Central Sterile Supply Departments (27.16%), low visibility of Central Sterile Supply Departments for patient safety (26.92%), difficulty in internal communication (30.69%) and difficulties learning from errors and fair culture (15.23%).

**Conclusions:** The perceptions about the safety culture are related to the quality control of processes and to infection prevention; however, there were perceptions about its low recognition and devaluation. The communication, learning from errors and fair culture subcultures proved to be weak.

**Keywords:** Nursing. Culture. Patient safety. Sterilization.

## RESUMO

**Objetivo:** Conhecer percepções de enfermeiros com experiência em Centro de Material e Esterilização sobre cultura de segurança.

**Métodos:** Estudo qualitativo, desenvolvido com 12 enfermeiras de hospitais das regiões Sul e Sudeste do Brasil, com dados coletados em março de 2021 por meio de entrevistas on-line. Procedeu-se a análise de conteúdo de Bardin, com apoio do software IRaMuTeQ.

**Resultados:** Interpretações foram classificadas considerando os seguintes aspectos: cuidado indireto do Centro de Material e Esterilização (27,16%), baixa visibilidade do Centro de Material e Esterilização para a segurança do paciente (26,92%), dificuldade de comunicação interna (30,69%) e dificuldades no aprendizado com erros e cultura justa (15,23%).

**Conclusões:** Percepções sobre cultura de segurança estão relacionadas com o controle de qualidade dos processos e prevenção de infecções, entretanto, houve percepções sobre baixo reconhecimento e desvalorização destes processos. As subculturas comunicação, aprendizado com erros e cultura justa demonstraram-se fragilizadas.

**Palavras-chave:** Enfermagem. Cultura. Segurança do paciente. Esterilização.

## RESUMEN

**Objetivo:** Conocer las percepciones de enfermeras con experiencia en Centros de Materiales y Esterilización sobre la cultura de seguridad.

**Métodos:** Estudio cualitativo desarrollado con 12 enfermeras de hospitales de las regiones Sur y Sudeste de Brasil, con datos recolectados en marzo de 2021 a través de entrevistas en línea. El análisis de contenido de Bardin se realizó con apoyo del software IRaMuTeQ.

**Resultados:** Las interpretaciones se clasificaron considerando los siguientes aspectos: atención indirecta provista por los Centros de Materiales y Esterilización (27,16%), escasa visibilidad de los Centros de Materiales y Esterilización para la seguridad del paciente (26,92%), dificultad en la comunicación interna (30,69%) y dificultad en aprender de los errores y cultura justa (15,23%).

**Conclusiones:** Las percepciones sobre la cultura de seguridad están relacionadas con el control de calidad de los procesos y la prevención de infecciones; sin embargo, hubo percepciones sobre su escaso reconocimiento y sobre su desvalorización. Las subculturas de comunicación, aprendizaje de los errores y cultura justa demostraron ser frágiles.

**Palabras clave:** Enfermería. Cultura. Seguridad del paciente. Esterilización.

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## ■ INTRODUCTION

A Central Sterile Supply Department (CSSD) is an indirect care and technical support unit for the assistance to be provided to the patients. This area is dedicated to the processing of Health Products (HPs), routinely supplying sufficient quantities to the care units and following quality standards recommended by regulatory agencies to promote safe assistance<sup>(1)</sup>.

The quality standards in the processing of HPs establish a continuous and unidirectional flow of stages that must be followed, beginning with reception and cleaning, followed by preparation, sterilization, storage and, finally, distribution. In order to meet the large amount of HPs consumed by some units, the distribution process should prioritize the services with the highest demand, such as the Surgical Center (SC), Intensive Care Unit (ICU), Obstetric Center (OC) and Emergencies<sup>(1)</sup>.

Since the publication of Collegiate Board Resolution (*Resolução da Diretoria Colegiada, RDC*) No. 15 in 2012, which provides on good practice requirements for the processing of HPs and other inputs, higher education and exclusive dedication have become mandatory for the professional who acts as responsible in the CSSD class II sector (which processes HPs of complex conformation, that is, with lumen less than five millimeters or blind bottom and/or inaccessible internal spaces that require automated cleaning). The nurse's responsibilities, directed to management of the CSSD, are defined in specific legislation, in order to guarantee minimum requirements in terms of quality and safety in its operation<sup>(2)</sup>. Thus, the CSSD workforce in Brazil consists mainly of nursing technicians and assistants, who must be supervised by nurses<sup>(3)</sup>.

The nurse's leading role in leading the CSSD team reflects directly on the sector's performance, which makes the challenge even greater, as there is no specific training in this area. For such management, in addition to the fact that understanding the dynamism of the assistance and surgical units is fundamental, specific knowledge about processing of HPs, productivity increase, staffing, quality and cost indicator evaluation and permanent Nursing education are required<sup>(4)</sup>.

From the quality point of view, managing processes in a CSSD implies reducing risks of care-related adverse events, especially in surgeries, which is still a major concern at the present time<sup>(5)</sup>. Despite presenting positive results with a significant impact on the reduction of adverse events, the use of a safe surgery checklist has shown that the processes are influenced by the local safety culture and by leadership support<sup>(6)</sup>.

In turn, the safety culture is conceptualized as the product of individual and group values, attitudes, perceptions, responsibilities and behavioral patterns that determine the commitment, style and proficiency of an organization's administration with safety management. Organizations with a positive safety culture are characterized by good communication among professionals, mutual trust and common understandings about the importance of safety and the effectiveness of preventive actions<sup>(7)</sup>.

The precepts of the patient safety culture meet processing of HPs since, despite being an indirect care unit, the CSSD can be considered as a protagonist in the prevention of Healthcare-Associated Infections (HAIs), pointing to the need for the CSSD to be part of this safety context. However, when referring to safe surgery, the scope of the theme in the CSSD is still little explored, as safety strategies could also extend to its processes and even to the construction of a safety culture<sup>(7)</sup>.

Today, processing of HPs needs proactive management for continuous improvement, as the high variability of processes, also caused by the evolution in science, constantly changes the processing demands. In addition to that, there are several CSSDs that have difficulties with historical roots – from a time when they were referred to as “purges” of the SC – related to devaluation of the sector, to precariousness of the equipment and to people management, denoting that it is a forgotten sector<sup>(8)</sup>.

Thus, professional experience and current occupation as a CSSD nurse instigated the researcher's interest in understanding how the patient safety precepts have been addressed in the CSSD. Therefore, the following research question is formulated: How do CSSD nurses perceive the patient safety culture in their work environment? The objective was to know the experience of nurses with professional CSSD experience about the safety culture in the sector.

## ■ METHODS

The current study, qualitative in nature, was developed with an exploratory and descriptive design, anchored in the possibility of providing rich insight into human behavior because it prioritizes the subjective dimension rather than objective measurements, which results in knowledge about important aspects of human experience<sup>(9)</sup>. In this sense, the recommendations set forth in the Consolidated Criteria for Reporting Qualitative Studies (COREQ)<sup>(10)</sup> were followed.

The research was carried out with nurses who have professional experience in class II CSSD in private, public, philanthropic or mixed hospital institutions, located in the

South and Southeast Brazilian regions. Selection was based on the researcher's network and considered the following criteria: being a nurse with at least one year of professional experience (between 2015 and 2020) with exclusive dedication to the CSSD; and having access to the Internet via a computer with a camera and microphone or smartphone. As for the exclusion criteria, the following were determined: being on vacation, special or gestational leave during the data collection period; and/or only participating in the first data collection stage. In this case, three participants were excluded for not attending the second data collection stage.

The sample was by convenience, through the researcher's contacts, by phone, with colleagues and former co-workers, college peers, former graduate students, and referrals from colleagues. The data saturation criterion, that is to say, data repetition in the interviews, was used to define the sample number, totaling 12 participants.

Data collection was conducted by the lead researcher in two stages. In the first, conducted during December 2020, invitations were emailed containing a brief introduction of the researcher (interviewer), the general objective of the research, and other information pertinent to participation in the study. Concomitantly, the Free and Informed Consent Form (FICF) was applied, as well as the survey form on the participants' socio-professional characteristics and on those of the respective hospitals, such as location, type of administration, whether they have an accreditation seal and/or Patient Safety Center (PSC). This information was collected in electronic format, via Google Forms, and only the researcher had access to the answers, in compliance with the Brazilian General Data Protection Law (*Lei Geral de Proteção dos Dados*, LGPD).

The second data collection stage took place in March 2021, during the COVID-19 pandemic. The interviews were conducted individually and exclusively online, and were recorded with the aid of the Google Meet tool. Before starting the interview, the researcher introduced herself and briefly explained her motivations and concerns about the study; subsequently, she explained the research objectives and clarified any doubts raised by the participants.

A semi-structured script was used to conduct the interviews. Open-ended questions were prepared from the concepts of patient safety and safety culture, as well as from the seven safety subcultures, namely: teamwork, communication, leadership, fair culture, learning from errors, evidence-based practice and patient-centered care; all described in a qualitative meta-analysis<sup>(7)</sup>. This script was applied twice with an experimental nature (pilot test), in order to determine adequacy of the language used and of understanding of the questions.

The records were prepared after data collection. The participants' sociodemographic data were recorded in a Microsoft Excel 2013 table. The recorded interviews, which lasted between 16 and 180 minutes, resulted in a mean of 39.75 minutes per participant. Time variation in the interviews occurred mainly due to connection problems, which required repetition of questions and answers, and/or to technical problems such as lack of audio, which were immediately solved. Therefore, it was not necessary to reschedule or repeat any interview.

As the interviews were concluded, they were transcribed *verbatim* and compared against the diverse information recorded in them. The transcriptions were reviewed by checking the printed record (field notes) against the video recorded. Afterwards, the texts were formatted, standardized and transformed into a single file called *corpus*, to be processed in the *Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires* (IRaMuTeQ) program.

Among the various possibilities for textual data treatment offered by the software, it was decided to resort to Descending Hierarchical Classification (DHC). In this modality, the text segments are classified based on their respective terms, and the set is distributed according to the frequency of the reduced forms. The classes arising from DHC correspond to the emerging categories. After the classes were defined by means of DHC, Bardin's content analysis method was used to analyze them according to identification of the topics present in each of them. Consequently, all three intended stages were developed, namely: pre-analysis, exploration of the material, and treatment of the data obtained/interpretation<sup>(11)</sup>.

In the first phase, the emerging classes created by the IRaMuTeQ software were checked and exhaustive readings of the corresponding texts were performed in order to get in touch with their structure and find out the guidelines for analyzing and recording the first impressions. In the second phase, after re-reading the texts to confirm the impressions that would define the names of the emerging classes, the text excerpts that best expressed the classes were selected. Finally, in the third phase, the data from each class were interpreted, approximating the participants' professional experience to the patient safety concepts as well as the aforementioned seven safety subcultures.

The research was approved in December 2020 with CAEE number 39519020.4.0000.5347 and opinion number 4,452,861. Anonymity was ensured and the ethical principles were respected through coded identification of the participants, as follows: N1, N2, N3... , as well as assuming a commitment towards using the diverse information obtained solely for the purposes of this study.

## RESULTS AND DISCUSSION

The socio-professional characterization showed that all 12 research participants were female, with 8 of them belonging to the age group between 30 and 39 years old. Regarding training, 10 had attended some *lato sensu* graduate course and one participant was an Academic PhD student. Most of the participants had more than 5 years of experience, and half of them had more than 10 years of exclusive professional experience in CSSD. In relation to the hospital institutions where the participants acquired their experience, 10 are located in Porto Alegre (RS) and 2 in São Paulo (SP); in addition, 11 institutions had a PSC and 10 had an accreditation seal.

It is known that search for an accreditation seal is a voluntary movement by the institutions that show interest in subjecting themselves to an evaluation process based on quality standards<sup>(12)</sup>. The PSC has been mandatory since 2013, when the Brazilian National Patient Safety Program (*Programa Nacional de Segurança do Paciente*, PNSP) was launched; however, it is worth mentioning that the institutions show difficulties contemplating this determination<sup>(7,12)</sup>. In the context of the current study, the presence of these two characteristics in the institutions – specifically where the participants performed their professional activities – allows inferring that concern and awareness regarding the

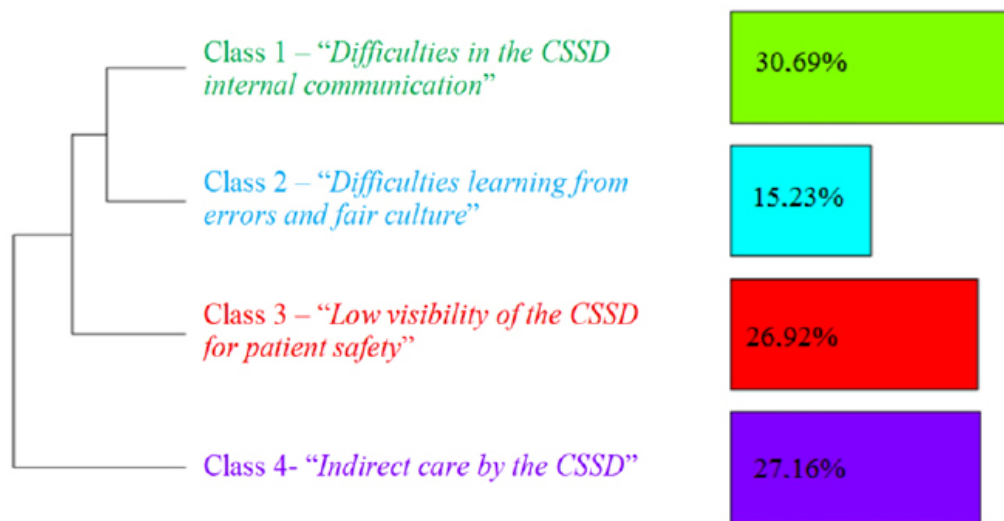
quality issues, and especially patient safety, permeate the prevailing culture.

Finally, treatment of the results emerging from the interviews generated the DHC from the *corpus*, consisting of 937 text segments (TSs), with leverage of 821 TSs, that is, representing 87.63% of the *corpus*. The classes were interpreted and named as follows: class 1 – Difficulties in the CSSD internal communication, with 252 TSs (30.69%); class 2 – Difficulties learning from errors and fair culture, with 125 TSs (15.23%); class 3 – Low visibility of the CSSD for patient safety, with 221 TSs (26.92%); and class 4 – Indirect care by the CSSD, with 223 TSs(27.16%).

The order in which the classes were assembled can be seen in the dendrogram (Figure 1), whose analysis indicates that it must be read from bottom to top. Thus, class 4 was the first to be created in DHC, followed by classes 3, 1 and 2.

The relationship between the classes indicates some ambiguities in the participants’ perception since, at the same time that they understand the importance for (indirect) patient care, they also identify low visibility of its processes for patient safety, which for them ends up reflecting in greater difficulties in the subcultures of communication, learning from errors, and fair culture in the CSSD.

Chart 1 presents a synthesis of the results that were obtained from interpretation of the emerging classes and the topics that comprise them.



**Figure 1** – Dendrogram corresponding to the classes that emerged from the IRaMuTeQ software. Porto Alegre, Rio Grande do Sul, Brazil, 2021  
Source: Research data, 2021.

Classes	Main topics
Indirect care by the CSSD (27.16%)	Importance of controls in quality of the processes Relationship with HAIs Decision-making related to the assistance provided to the patient Monitoring of the processes by nurses
Low visibility of the CSSD for patient safety (26.92%)	Low acknowledgment of the quality of the CSSD processes as exerting impacts on patient safety Low knowledge in the assistance sectors and top management about the CSSD processes Low appreciation of the CSSD Non-inclusion of the CSSD in the patient safety context
Difficulties in the CSSD internal communication (30.69%)	Difficulties in communication between schedules and shifts Subjectivity in transmission and interpretation of the information Non-use of effective tools for communication Constant changes in the internal routines
Difficulties learning from errors and fair culture (15.23%)	Collective learning Subjectivity in the failure/error repercussion Blame culture Subjectivity in application of the fair culture

**Chart 1** – Synthesis of the topics found in the emerging classes. Porto Alegre, Rio Grande do Sul, Brazil, 2021  
Source: Research data, 2021.

### Indirect care by the CSSD

This class grouped the perceptions related to control of the internal processes in the CSSD and how these processes impact on the quality of the assistance provided to the patients, especially during surgeries. Efforts for effective management were reported, showing greater concern for the cleaning, checking of HPs and distribution stages. In addition, the participants mentioned that their decision-making process is centered on patient care and evidence-based practice, which depend on good management of the Nursing team and on monitoring the processes from beginning to end, so that their weaknesses can be identified. The following speech excerpts stood out in this regard:

*[...] All of our actions are aimed at the patient. Even the material we take, the material is unique and will impact on the surgical procedures. We try as much as possible not to cause an impact, not to take away something important, to contact maintenance as soon as possible so they can expedite things and not suspend or aggravate the patient's situation [...]. (N3)*

*Patient safety within the CSSD is very important, the material that we handle comes in direct contact with the patient, but our work is indirect to the patient and, by using the best practices within the CSSD, it goes along with patient safety. (N11)*

It is worth mentioning that, in theoretical frameworks, processing of HPs is considered as an activity of a complex nature within the context of health organizations, whose main objective is to prevent the occurrence of any adverse event related to reuse in the care process<sup>(4-5)</sup>. Currently, not only the potential transmission of infectious microorganisms is a cause for concern, but also the types of toxic products used in the processes, or the occurrence of reactions due to residues of products used, especially in the cleaning stage, in which safety omissions compromise all subsequent stages of the process<sup>(13)</sup>.

As observed in the participants' speeches about the impact of taking an HP out of circulation, this concern is related to the checking stage, as the "unavailability" factor was recognized as a cause of delays and stress in surgical procedures, which can lead to additional risks for the patients.

An example of this is a study that analyzed surgeons' answers to safe surgery questions. The "incomplete or damaged" error category related to the HPs for surgical use was the most frequent in this study, being identified after initiation of the procedure and corresponding to 418 cases (72.3% of the total), followed by the category called "problems in the equipment or instruments" of the operating room, with 395 cases (68.3%). Of these incidents, 413 (71.4%) were notified so that improvements could be implemented<sup>(14)</sup>.

The perceptions of the participants in this study about how the processes can directly impact on patient care indicate that their decision-making process is guided by the patient-centered care subculture. And this care ranges from the need to communicate and provide an input for the cleaning process to redirection of an HP that needed to be sent for maintenance and needs replacement, due to the surgical assistance impact. Given these considerations, it is considered that evidence-based practice is essential for the CSSD. Although the participants mentioned compliance with the current legislation and with the use of quality indicators, the reports of their practices showed subjectivity and little standardization.

A Chinese randomized trial obtained significant results when comparing a traditional management model in a hospital's CSSD to the standardized management model considering the improvement method for failure management based on the Joint Commission International (JCI) standard for cleaning and disinfection of a CSSD. The management model based on the JCI proved to be effective in contributing to improvements since, by promoting evidence-based practice in the cleaning processes of the HPs, in addition to taking into account the medical team work situations and job satisfaction, it consequently resulted in reducing the incidence of adverse events<sup>(15)</sup>.

It is worth mentioning another study, which proposes using a bundle of best practices in the CSSD to guide and minimize process variability, in addition to instructing managers on the quality indicators<sup>(16)</sup>. The results of both studies therefore confirm that greater standardization and workgroups with subspecialization in the CSSD teams generate fewer errors and greater satisfaction of the care units<sup>(5)</sup>.

### Low visibility of the CSSD

This class grouped reports about the relevance of the CSSD work for patient safety. Although the previous class raises a number of practices for patient safety, the participants reported low recognition of their work by the care and surgical units and by the administration of the hospital institutions. There was verbalization of a feeling of devaluation by the

CSSD professionals for not being included in the direct care context and, consequently, for not being part of the patient safety culture. The following speeches stand out:

*I think that the CSSD has to be included in the same context as the whole hospital. When outside companies come to offer training, the events are directed to them, and the CSSD sector is always forgotten. When they remember us, it's because there are no people in the auditorium. That's when they call the CSSD... (N5)*  
*[...] There's lack of knowledge in people who have never experienced [referring to the professionals of the care units] a CSSD to understand our process and understand that the routines that we try to stipulate are not to be boring, it's to try to follow some safety [approach]. (N7)*

The participants' feelings are matched in a study that analyzed Nursing professionals in the CSSD of a public hospital in *Agreste de Pernambuco*. In this study, the professionals were interviewed in order to verify their perceptions about the work process and its implication for the patients' health. The sample consisted of 35 professionals, of which 97.1% consider that there is a relationship between processing of HPs and patient safety. When asked about the inconveniences they experience, 45.7% of the professionals pointed out that there are other problems besides the ones mentioned in the questionnaire, with lack of supplies being the most cited. In addition to that, 48.6% consider that the work performed in the CSSD is seen as unimportant<sup>(17)</sup>.

Another qualitative study conducted in a CSSD analyzed the Nursing work process related to the pleasure and distress experiences. In this case, although the professionals recognized the importance of their work, correlations were pointed out with the distress caused by the conditions and workload, such as lack of air conditioning, intense noise, lack of equipment and supplies for the work demand<sup>(18)</sup>.

Thus, the studies cited reinforce the feeling of devaluation shown by the participants, considering that, although processing of HPs is essential for the functioning of a hospital and patient care, there are still working conditions that do not favor safe processing, not only impacting on the quality of the products and on the service itself, but also causing distress to the CSSD professionals. Thus, this devaluing perception by the hospital top management is related to non-inclusion of the CSSD in the safety context.

Regarding the literature, it seems that patient safety in CSSDs has also been forgotten. The results of a bibliometric study, which searched for publications on the theme of CSSD in Brazilian journals classified as Qualis A1, A2, B1, and B2, showed a disturbing reality. In the 108 studies selected and

published between 1973 and 2017, the predominant topics were related to sterilization quality assessment, workers' health, physical and material resource management, sterilization technologies, and the role of Nursing in the CSSD. Thus, among these hundred studies, none related to creating a patient safety culture in the CSSD was found<sup>(19)</sup>.

This data raises a warning for the practices related to the safety culture in the CSSD because, although this is a sector with impact on assistance and responsible for the safe processing of all HPs, no studies were found addressing this issue. Therefore, the need to create a patient safety culture in the CSSD is emphasized.

### Difficulties in the CSSD internal communication

In this class, the nurses' perceptions about the weaknesses in the communication process among the CSSD Nursing teams were gathered. These weaknesses are linked to the nurse's leadership role, which involves transmission of diverse information and how it should be interpreted, as well as the difficulty involving the group in this process. In addition to that, internal difficulties that weaken communication were reported, such as absence of ideal working conditions and insufficient staff, factors that generate difficulties in the management of the activity schedules. Another aspect exposed was the difficulty in interpersonal relations, which, added to fragmentation of CSSD processes, favors failures in communication, which may generate eventual incidents. The following speeches illustrate this class:

*Communication is a very important process in the CSSD, to avoid delays in procedures we have to communicate all the time and confirm what is a priority... (N3)*

*So it's a very difficult communication and it is usually not effective, especially from shift to shift. I think that this is where the question of each person's individuality comes in, each person's view, each person's mood that day. (N1)*

*[...] There were some situations that I had, that the person for not having affinity [with the colleague] preferred to clean there [to wash again] and move on [to the next stage of the process], so this ends up directly disturbing patient safety [...]. (N5)*

This reports exemplify the difficulties in internal communication in the sector; in other words, between the team members. Communication failures are recognized as a chronic problem for safe care and are considered the leading cause of sentinel events in care units. Consequently, improving communication among the health professionals became

one of the international patient safety goals recommended by the JCI<sup>(12)</sup>. In the case of this study, it is clear that communication difficulties or failures can exert impacts on the safety of internal processes, affecting patient care in the assistance units.

The difficulties that were pointed out in the statements have resonance in a study about the perceptions of the difficulties faced by a Nursing team in the inland of the state of São Paulo, regarding the work process in the CSSD. The failures in communication between professionals, sectors and/or suppliers, as well as the systematization of the work process, were highlighted among the many difficulties in the CSSD processes<sup>(20)</sup>. And when professionals stop communicating in order to avoid conflict, attention must be paid to the reasons for this behavior.

Together with the participating professionals, another study listed strategies to improve communication among the team members, and the most frequently suggested by the professionals were as follows: identification of destructive behaviors on the part of the team, openness to dialog, holding meetings with all team members, exercising authentic leadership with a focus on performance evaluations and feedback, and promoting mutual respect among the professionals<sup>(21)</sup>.

Consequently, nurses' involvement as leaders in the communication process is fundamental as an improvement strategy. All the participants in this study reported involvement with their teams and their concern about the relationship between communication and interpersonal relationships is visible in their speeches, in which mood can affect safety of the processes. However, the strategies mentioned for improving communication are still limited to a few resources, such as email communications, use of posters to intensify visual communication, and use of communication apps.

### Difficulties learning from errors and fair culture

This class grouped the participants' perceptions about the errors that were oftentimes a source of not only individual but collective learning, and assisted in understanding the importance of the work performed in the CSSD and its impact on patient care. However, on the part of the participants, this process showed certain dependence on the repercussion and notification of failures/errors identified in the care units, only then to make the CSSD aware of the problems and work on the improvements.

It is worthwhile here to return to the concept of fair culture, which is a subculture of the safety culture and establishes the consensus between acceptable and unacceptable behaviors, being intolerant only towards reckless

and/or negligent behaviors. In addition to that, it aims at the confidence and responsibility of professionals in health organizations through root cause studies when errors/failures occur, in order to distinguish if it was a human error, a risk behavior or a reckless behavior, avoiding proceeding only to blaming individuals<sup>(7,12)</sup>.

The participants' understanding of fair culture did not match their practices, as the behaviors reported were reminiscent of a traditional intervention model, based on individual punishments. In some cases, the professionals are also blamed when an error is detected, as shown in the following speech excerpts:

*[...] it's not like you mistakenly give a medication and then you see the patient decompensating, I end up not having contact with the consequences of that, or maybe I'm aware of them, but it's something still a little distant. (N10)*

*I try to correct the process again by providing training on top of the failures that happened, although there are still some institutions that have that witch-hunt culture. (N2)*

*I think that if the nurse wasn't fired, why only the employee was fired? And the atmosphere in the sector was very unpleasant, because many people wondered why only one person was fired and the other was not [...]. (N8)*

*[...] I think that those people know, and even so, they keep doing it wrong because it's easier, they don't want to change it. (N9)*

The literature points out that, in order to enable continuous learning from errors/failures, it is necessary that, in the first place, the professionals adopt a reporting strategy when they encounter errors/failures in their routines, that is, recording and communicating their occurrence to the responsible sector in the institution. The standardized management model, which comes from the improvement method for failure management based on the JCI standard, also recommends notification of errors/failures, proposing that they should be analyzed for subsequent implementation of improvement plans based on the Plan, Do, Check, Act (PDCA) method, in order to prevent recurrence of these errors/failures<sup>(15)</sup>.

However, in the everyday routine, it seems that this strategy has not been easily incorporated, as non-adherence or even low adherence to notification is observed, behaviors that can be due to a punitive culture adopted by some institutions and that shows fragility in the construction of a safety culture<sup>(7,12)</sup>. As an example, notification of incidents related to the CSSD processes was only mentioned by two participants of the current study as a process improvement strategy, endorsing the cited study, due to the weak CSSD

inclusion in the patient safety culture and, consequently, showing that there is no notification culture.

Yet another study points out that, by adopting the fair culture, the environment is taken over by a climate of mutual trust, in which people are encouraged to always communicate information considered essential for patient safety, a context in which there is no fear of individual blame. However, it is fundamental that the professionals are aware of the limits between acceptable and unacceptable behaviors, and that the penalty occurs according to the severity of the unacceptable ones<sup>(22)</sup>.

From the participants' speeches, it can be concluded that the fair culture seems not to be incorporated into the CSSD yet, as there is subjectivity in management of errors/failures and, consequently, individual blame without further investigation of reasons or causes. In other words, there seems to be no distinction between acceptable and unacceptable behaviors, going against what is recommended in the literature. It is believed that, in addition to being fundamental that nurses from different shifts be guided by the same criteria when conducting situations, it is also necessary for health institutions to engage in adapting their management models, contributing to strengthening this subculture.

Finally, it is worth mentioning the limitation of this study in not returning the transcribed text of the interviews to the participants, a condition that may have affected the results due to the methodological rigor adopted.

## ■ FINAL CONSIDERATIONS

Given the results, after analyzing the perceptions of the nurses participating in this study, it was concluded that the CSSD provides indirect patient care, as its decision-making process is based on the assistance provided to the patients. From this perspective, the patient safety culture is present through the quality control of internal processes performed by nurses, which impact, in particular, on the occurrence of HAIs.

On the other hand, there is a perception that there is limited knowledge in the assistance and surgical sectors and in the hospital's top management about the CSSD processes and its impacts on patient safety, resulting in low appreciation of this sector and its limited inclusion, or even absence, in the safety actions developed in hospitals. Low visibility of the CSSD as an agent that promotes patient safety is the perception that synthesizes this context and demands more in-depth studies. Internally, there were also difficulties with communication and learning from errors, subcultures that show to be weak for a patient safety culture, as well as a fair culture, which still needs to be developed in the CSSD context.



Therefore, new studies that include patient safety in the CSSD environment can offer greater contributions to create and consolidate the safety culture. Such demand requires the participation of several professionals from CSSDs in different realities, seeking, for example, subsidies that result in the elaboration and validation of a questionnaire for measuring a safety culture specific to the CSSD. A possibility for a research path is therefore suggested to verify the maturity level of the safety culture, in order to obtain data to strengthen this culture that urgently needs to be built in this sector.

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