Original article

Patient safety centers in the state of Espírito Santo, Brazil: potentials and challenges

Núcleos de segurança do paciente no estado do Espírito Santo, Brasil: potencialidades e desafios

Flávia Batista Portugal[1]
Shaiane Coslop[2]
Maysa Silva Castelar Costa[3]
Kallen Dettmann Wandekoken[4]

[1,3]Universidade Federal do Espírito Santo (Vitória). Espírito Santo, Brazil.
[2]Secretaria de Estado da Saúde do Espírito Santo (Vitória). Espírito Santo, Brazil.
[4]Corresponding author. Universidade Federal do Espírito Santo (Vitória). Espírito Santo, Brazil. kallendw@gmail.com

ABSTRACT | OBJECTIVE: To understand the potentials and challenges of the work of Patient Safety Centers (PSCs) in public hospitals in the state of Espírito Santo. **METHODS AND MATERIALS:** This is a qualitative study conducted through eight individual interviews with professionals working in PSCs in public hospitals. Subsequently, the data were subjected to thematic analysis. **RESULTS:** Eight categories emerged, with the first six being: Team turnover; Workload overload; Lack of professional involvement and undervaluation; Lack of professional experience in the field; Challenges in the practical implementation of patient safety actions; and Recognition/ engagement. It is worth noting that, of these six categories, only the last one is a facilitator for the PSC's operation. The last two categories listed also serve as facilitators, but they were presented by only one interviewee, namely: Organizational structure of the PSC and Efficient management of action plans. **CONCLUSION:** Several challenges were identified to be overcome for the National Patient Safety Program to implement its guidelines and, thus, to strengthen the culture of safety in healthcare facilities, ultimately impacting the quality of care provided.

KEYWORDS: Risk Management. Quality of Health Care. Patient Safety.

RESUMO | OBJETIVO: Conhecer as potencialidades e os desafios do trabalho dos Núcleos de Segurança do Paciente (NSP) de hospitais públicos no estado do Espírito Santo. **MÉTODOS E MATERIAIS:** Trata-se de um estudo com abordagem qualitativa realizado a partir de oito entrevistas individuais com profissionais atuantes em NSP de hospitais públicos. Posteriormente, os dados foram submetidos à análise temática. **RESULTADOS:** Emergiram oito categorias, sendo as seis primeiras: Rotatividade da equipe; Sobrecarga de atividades; Ausência de envolvimento profissional e desvalorização; Ausência de experiência profissional na área; Desafios na implementação prática das ações de segurança do paciente e Reconhecimento/ engajamento. Nota-se que destas seis categorias, apenas a última se trata de facilitador para atuação dos NSP. Já as duas últimas categorias elencadas também se tratam de facilitadores, mas foram apresentadas por apenas um entrevistado, são elas: Estrutura organizacional do NSP e Gerenciamento eficiente de planos de ação. **CONCLUSÃO:** Constatou-se vários desafios a serem superados para que o Programa Nacional de Segurança do Paciente tenha suas diretrizes implantadas e, assim, haja o fortalecimento da cultura de segurança nos estabelecimentos de saúde, de modo a impactar na qualidade da assistência ofertada.

PALAVRAS-CHAVE: Gestão de riscos. Qualidade da Assistência à Saúde. Segurança do Paciente.

Submitted Oct. 18th, 2023, Accepted Dec. 20th, 2023,
Published Mar. 20th, 2024
J. Contemp. Nurs., Salvador, 2024;13:e5453
http://dx.doi.org/10.17267/2317-3378rec.2024.e5453 | ISSN: 2317-3378
Assigned editor: Cátia Palmeira

How to cite this article: Portugal FB, Coslop S, Costa MSC, Wandekoken KD. Patient safety centers in the state of Espírito Santo, Brazil: potentials and challenges. J Contemp Nurs. 2024;13:e5453. http://dx.doi.org/10.17267/2317-3378rec.2024.e5453

1. Introduction

Patient safety is considered to be the reduction of harm resulting from health care to the lowest acceptable level.[1] Initiatives aimed at patient safety were already taking place throughout Brazil, but in 2013, with the establishment of the Programa Nacional de Segurança do Paciente – PNSP (National Patient Safety Program), systematic progress was made. The PNSP aims to contribute to the quality of health care in all services, based on actions articulated with the most varied sectors of the federal, state and municipal governments.[2]

A major milestone was the publication of Agência Nacional de Vigilância Sanitária - ANVISA (National Health Surveillance Agency) Resolução da Diretoria Colegiada – RDC (Collegiate Board Resolution) No. 36 in 2013. The RDC describes in detail the actions needed to develop patient safety in health services and determines the creation of Núcleos de Segurança do Paciente – NSP (Patient Safety Centers), which are responsible for developing actions aimed at patient safety in institutions.[1]

NSPs are responsible for coordinating the various sectors that work with risk management in institutions. They should be made up of a multi-professional team of doctors, pharmacists and nurses, as well as professionals from other sectors, such as waste management and hospital infection control.[3]

Despite the legal framework, there are still difficulties in developing actions aimed at patient safety in health services, even for establishments considered to be benchmarks in municipalities and states, which are responsible for several highly complex procedures.[4] There is a gap between what is legally proposed and the actions carried out, due to the lack of material resources, inadequate physical structure, improper quality of materials and insufficient human resources.[5]

The challenges encountered include structural issues in health services and work processes. One way of minimizing this impact is the support of senior management and the development of a non-punitive culture[6,7], from which it is understood that patient safety requires a systemic approach and that the occurrence of an adverse event is the result of a chain of gaps in the services and not simply the fault of one professional.[1,8]

Thus, in view of the aspects mentioned above, this article aims to find out about the potential and challenges of the work of the NSP in public hospitals in the state of Espírito Santo, based on the perception of professionals.

2. Methods and materials

This is an exploratory, descriptive study with a qualitative approach, carried out in 2020 with professionals working in NSPs in public hospitals in the state of Espírito Santo (ES). Overall, the state has 18 public hospitals in its network, of which those that in 2020 had NSP registered with the ANVISA were selected. Thirteen hospitals were selected, of which 12 agreed to take part in the research. Regarding the selection of participants, the inclusion criteria were to be a professional formally appointed to work in the NSP and to have been designated by the hospital's management to take part in the research as a representative of the NSP in question.

The ES public hospital care network is made up of 2 specialized hospitals and 16 general hospitals, with a total of 2,486 beds and 840 intensive care unit (ICU) beds. According to the number of beds, 4 are small (less than 50 beds), 7 are medium-sized (51 to 150 beds) and 7 are large (151 to 500 beds). The service profile is varied, covering the most diverse specialties.[9]

Data collection took place between November 2020 and January 2021, in the face of the COVID-19 pandemic, and the interview was conducted online through a social interaction platform. Initially, a questionnaire was applied to characterize the participant, with questions regarding gender, training, training time and time dedicated to the work of the nucleus. The interviews were guided by two questions: "What are the actions carried out by the NSP?" and "What are the facilities and difficulties in the work of the NSP?". The interviews were recorded, lasting an average of 40 minutes, and then transcribed in full. After transcription, thematic analysis was carried out, according to the following stages: approaching the data (reading and re-reading), generating initial codes (defining important characteristics), grouping the codes into themes, reviewing the themes (generating thematic maps), defining and naming the themes and producing the analysis report.[10]

This study was submitted to the Brazil platform and approved by the Research Ethics Committee of the Universidade Federal do Espírito Santo (opinion number 4.335.066). All the participants agreed and signed the Informed Consent Form (ICF) before the interviews began.

3. Results

Among the hospitals that agreed to take part in the study, one reported that it did not have a structured NSP and three were considered to have refused, after three attempts to contact them; eight professionals took part in the interview. The majority of the participants were female (06), with an average length of professional experience of 12.6 years (minimum of 08 and maximum of 24 years) and half worked exclusively in the center. In terms of training, 4 were nurses, 2 doctors, 1 pharmacist and 1 psychologist.

Considering the interviews, after categorizing the data, eight categories emerged, the first six of which were called: Staff turnover; Overload of activities; Lack of professional involvement and devaluation; Lack of professional experience in the area; Challenges in the practical implementation of patient safety actions and Recognition/engagement. It can be seen that of these six categories, only the last one is a facilitator for the NSP's work.

The last two categories listed are even more different from the previous ones, not just because they are facilitators, but because they were presented by only one interviewee (E1): NSP organizational structure and Efficient management of action plans.

3.1. Staff turnover

This category portrays the high turnover of the staff, which can sometimes be understood as being due to the difficulties of working in the center and professional instability, but contributes to interrupting the flow of work, as well as overloading some professionals and reducing their commitment to the center's activities. These issues can be seen in the following reports:

"When they [the people/professionals] see that the work is difficult, it's demanding too much, 'oh I'm going to leave, I can't do it anymore, this and that'" (E4).

"Company leaves in a month: processes weakened due to the instability of all with the end of the OSS contract" (E4).

"A challenge for the NSP's actions is the number of professionals on temporary contracts, who have to leave periodically. When they leave, there has to be new training for the new professionals" (E2).

"We have to reduce this turnover. It's a very deleterious thing, you know, for any project. [...]. Because you go in, you have to explain it again, make the person understand the project, make the person aware of it. So it's very stressful" (E8).

3.2. Overload of activities

Another factor the interviewees pointed out as a hindrance was the overload of activities. As, in most cases, there is no exclusive staff for the patient safety center, the professionals involved have limited availability, as can be seen in the excerpts below:

"I think it would be important for people to have protected hours for these core actions. What we see are overburdened people, understaffed teams, especially the nursing staff, nurses and technicians, and when you arrive after it's been set up, after you've succeeded, the view changes, doesn't it? Well, this helps my work, this makes my work easier, even when I'm overburdened. But when you arrive with more things for someone who's desperate, there's only them in that square to look after 20 patients" (E8).

"[...] because sometimes they want us to do it, but it's not even possible for us to meet, and we can't meet during working hours, because we have to provide assistance, so it's not possible" (E2).

"The center has a diverse range of professionals: psychologist, physiotherapist, speech therapist, administrative, nursing technician, nurse, doctor [...] but I also see that people have little availability. No one is exclusive in the group" (E4).

"We don't have an exclusive minimum staff, you know? Even if it was an administrator and a nursing technician. For example, a nurse and a nursing technician, I don't know, to be able to take care of some things that are bureaucratic, that nobody can get behind. And when it comes to us, because I've got so much work to do, so many problems to deal with, that I say 'I can't deal with this too', which makes it very difficult, you know... So that's a big obstacle (E5).

3.3. Lack of professional involvement and devaluation

When analyzing the interviews, it was also possible to see a lack of professional involvement, both on the part of senior management and professionals outside the core team:

"One very important thing that we need to have, that we don't have, is the support of senior management. Support, in fact. Not blaming them, but they're always involved in other problems" (E8).

"We come up against the issue of team acceptance and involvement... This is a very big weakness that we have.... This is experienced" (E6).

"So for us to implant the culture, it's not enough to say it, if people don't get involved in the safety culture, there's no way" (E2).

In addition, work related to patient safety is still highly undervalued, which naturally generates a certain demotivation to continue with the work:

"It's still very difficult, unfortunately, to associate quality and patient safety, they think it's a waste of time and a high cost, so it's very challenging indeed" (E4).

3.4. Lack of professional experience in the area

Another category addressed in the reports of three professionals refers to the "lack of professional experience in the area", which increases the challenges of working in the center, not least because it requires an in-depth understanding of the elements related to safety quality. This understanding is crucial, and the responsibility of managers stands out, as highlighted in the following excerpts:

"One challenge would be to hire qualified people" (E6).

"Sometimes the top management doesn't support it, not because they're bad, but because they don't know, they don't really know, I don't know, I think the state should train the managers" (E8).

"Another challenge is the existence of sector heads with political positions, who have no experience in the activity they carry out. They also often lack the interest and competence to manage the sector" (E2).

3.5. Challenges in the practical implementation of patient safety actions

This category points to the challenges in implementing practical actions, which suggests a gap between what is legally proposed and what is carried out on a daily basis, as highlighted by the interviewees:

"A challenge would really be the issue of putting everything we've been talking about into practice, right, starting from the diagnosis, drawing up our plan and putting it into practice" (E2).

"The challenge would be to effectively implement at least what has already been built. At least what has already been developed, right, the protocols. I think that if the protocols are effectively implemented, then things will start to move forward. So that's the challenge: to implement them effectively" (E5).

Among these practices is the reporting of adverse events, as can be seen in the statement below:

"Notification of PI [pressure injuries], unfortunately at a cultural level we have a very big deficiency in the hospital in incorporating decubitus changes" (E6).

3.6. Recognition/engagement

In this category, recognition of the NSP's work and the team's commitment are emphasized as potentialities mentioned by three interviewees that contribute to strengthening the patient safety culture:

"The strength of patient safety at the hospital is the institution's recognition of the NSP. The NSP is recognized by the medical team and the entire hospital staff. It was a small job, but then it started to be seen as active and the engagement of the NSP team showing the results ended up opening the eyes of the entire multidisciplinary team. The sectors are more respectful and engaged, and there are many more events and reports. The quality audit helps to increase notifications and improve the quality of care and events. It all happens very naturally" (E7).

"In almost every sector there are those people who really get involved and fight for the continuity of processes" (E8).

"Every training we provide, every action we take in the clinics, let's say that in a team of 8 employees, 6 receive it very well, they really like the changes, they initiate the changes and give us positive feedback afterward" (E6).

3.7. NSP's organizational structure

In contrast to the other categories mentioned, this one mentions potentialities that correspond to an adequate NSP structure with professionals working exclusively at the center and aspects that are in line with what is proposed in RDC no. 36. The fact is that there is only one passage in this category that differs from the previous ones:

> *"The NSP is made up of a doctor, nurse, quality analyst, quality manager and pharmacist. The center is very well structured, in terms of physical structure and manpower. All the members have routines exclusive to the NSP, nurses, pharmacists and doctors are exclusive to the NSP. The NSP has everything very well structured, all the documents in accordance with RDC 36 [of 2013], and we are ONA level 2 accredited, so there are quality management processes as well" (E1).*

3.8. Efficient management of action plans

In this last category, a potentiality highlighted, also by a single interviewee, is the management of action plans, pointed out as essential for adequate risk management:

> *"In my opinion, having an action plan management system guarantees good management of the quality and patient safety action plan. We are able to know whether actions related to indicators, incidents, protocols, non-conformities, targets have been met, delayed, completed, are in progress, in other words, we manage the status and charge the local managers [charge for the progress of the analyses]" (E1).*

4. Discussion

The results of this study show the potential and challenges of working in NSPs, based on the accounts of the professionals themselves who work in public hospitals in the state of Espírito Santo.

One of the relevant factors mentioned by the interviewees was the high staff turnover, which has a direct impact on the quality of care, patient safety and hospital productivity[11], as it doesn't allow for the formation of a solid connection between staff and institution - and even impairs the performance of teamwork. This is essential for developing a culture of safety in health services. This is because cohesive employees who respect and support each other contribute to providing high-quality care.[12,13]

With the increasing complexity of care, safe healthcare requires effective communication and teamwork. It is known that many adverse events are caused by communication problems between professionals.[14,15] Thus, teams that have a shared understanding of care and work towards the same goals help to minimize the damage caused by care.

Therefore, as can be seen from the interviews in this study, turnover interrupts the team's workflow, since new employees have to adapt to the environment and often even become aware of the importance of the safety center.

At this point, it is important to note that there are factors linked to management that can influence employee retention, reducing high turnover. By way of illustration, managers who foster satisfaction and create a safe environment in the face of institutional violence have the potential to reduce employees' propensity to leave the organization.[16]

Another factor pointed out in the interviews was the issue of activity overload, since most NSPs don't have exclusive professionals on their teams. In this way, the center doesn't get adequate engagement, which increases the amount of work for the professionals involved and can contribute to exhaustion.

When discussing overload, the testimonies also show that professionals are often not exclusive to the NSP, i.e. in addition to carrying out the activities inherent to the center, they must also provide assistance. This situation has already been reported in the literature[7] when it was pointed out that, although legislation[1] does not oblige this, the accumulation of activities interferes with the development of quality work.

Therefore, the overload of these professionals, both in nursing and in other areas, can even have consequences for their work beyond the core: overload is a factor that increases the number of

errors in procedures such as the application of medication, biosafety assessments and many others, since the professional's attention is diminished, as pointed out in the interviews.

At this point, it's worth emphasizing that NSPs are the bodies responsible for developing actions to minimize adverse events, so their work is essential for the health service because it reduces negative impacts on patients (such as increased length of stay and sequelae) and contributes to reducing costs. To this end, the support of managers allows for investment in improvements and demonstrates to the teams the importance of safety for that service, encouraging professional engagement.[6] Therefore, it is essential that the institution encourages senior management to get involved in patient safety, in order to promote an environment where demands are listened to and accepted, and thus contribute to minimizing adverse events.

However, when analyzing the interviews, it was possible to see a lack of professional involvement, both on the part of senior management and professionals outside the nucleus. In many situations, this shows that the work related to patient safety is undervalued, which naturally generates a certain demotivation among professionals to continue working with the center.

Another challenge was the lack of professional experience in the area. On this point, because patient safety is still a highly undervalued area, it is natural that there are few specializations focused on the subject, as well as few professionals who study and are interested. These factors can result in a lack of professional experience in the area, which further increases the difficulties of the patient safety center.[7]

It is also worth noting that preparing healthcare professionals in terms of the concepts that permeate quality and patient safety is fundamental to understanding the importance of these aspects, adhering to protocols, safe practices and strengthening the team's commitment.[7] These aspects are also (or even more) fundamental when it comes to management.

Thus, it is necessary to develop educational actions, whether through training or specialization courses. The National Patient Safety Program and RDC No. 36 highlight the importance of teaching throughout the process, whether through the inclusion of the subject in undergraduate and postgraduate curricula[2], or through institutional actions in healthcare establishments.[1] It has been pointed out that the culture of patient safety shows significant improvement after the development of educational programs, so that the inclusion of the subject in continuing or permanent education programs can contribute to changes in the actions of the service.[17]

In this context, while emphasizing these much-needed aspects of patient safety, it is worth noting that some interviewees pointed out that the practical implementation of what is proposed as patient safety actions is a challenge in NSPs.

Implementing protocols is one of the functions established for the centers and is the most frequently reported in the literature.[4,6,7,18-20] The Ministry of Health and the National Health Surveillance Agency have jointly published six protocols (patient identification, pressure ulcers, hand hygiene, safe drug administration, safe surgery and falls) as guidelines for health services.[1,2] However, it has been noted that health services still have difficulties in implementing and monitoring the basic protocols[18], with a gap between what is legally proposed and what is actually done.[5,20]

It should be noted that one of the functions established for the centers is the notification of adverse events. RDC no. 36 makes it mandatory for the national system to report adverse events within 15 days and those that progress to death within 72 hours.[1] Reporting is a challenge for the centers; fear of punishment and the absence of computerized systems or systems that are not very user-friendly are considered a barrier for professionals, and underreporting is also observed.[18,19] Notification is a guiding element of the centers' actions, as it provides an overview of the gaps found and directs preventive and corrective actions, so the existence of a computerized, easily accessible and anonymous system is essential for the gradual increase in monitored events.[1]

Regarding the potentials mentioned by the interviewees, we highlight the recognition of the NSP's work and the team's commitment — mentioned by three interviewees. It should be noted here that disseminating a culture of patient safety is one of the NSP's guidelines, which is understood as a "set of values, attitudes, skills and behaviors that determine

commitment to health and safety management, replacing blame and punishment with the opportunity to learn from failures and improve health care".[1] Therefore, in order to achieve improvements in the health service, strengthening a culture of safety, to the detriment of a punitive culture, becomes essential for progress in actions.

Thus, valuing and encouraging the work of the NSPs is a potential way of effectively improving the patient safety culture in hospitals[21] and the recognition (also portrayed by the interviewees in this survey) further highlights the importance of this attitude of appreciation by all the professionals involved in the work process in the field of patient safety.[22]

Adding to this potential and, at the same time, distancing themselves from the previous categories, the excerpts from an interview (E1) draw attention, as they point to the NSP's organizational structure and the efficient management of action plans as facilitators of the NSP's work.

It is important to note that this interview contains excerpts that differ from those presented above, since it mentions potentialities that correspond to an adequate structure of the NSP with professionals working exclusively in the center and aspects that are in line with what is proposed in RDC no. 36. The fact is that as the research in question was carried out with professionals working in different public hospitals, these disparities could be present.

Thus, the excerpt listed in this category, although unique, is important because it highlights the possibilities for progress in the challenges faced by institutions when promoting patient safety. The report also points to the efficient management of action plans and reaffirms the importance of progress in this area.

At this point, it should be clarified that the legislation determines the functions of the NSP in the health service and among them is risk management, which is understood as systematic work to control the risks and adverse events that affect patients, professionals, the environment and the institution.[1] Therefore, risk management is one of the actions to be developed by the center, with a view to providing elements for decision-making by managers, however, in many establishments, it is difficult to implement due to the punitive culture that generates underreporting of adverse events.[23-25] Thus, the management of action plans is essential for this risk management to be carried out properly, as pointed out in the category in question.

A limitation of this study was the fact that it was carried out during the coronavirus pandemic, which resulted in professionals being overloaded due to the demands of the service and, consequently, with limited hours to carry out the interviews.

5. Conclusion

This research explored the factors that impact on the implementation of NSP services, highlighting challenges such as high staff turnover, overload of activities and lack of professional experience in the area, among other obstacles. It also identified potential facilitators, such as professional recognition and engagement, along with the presence of an adequate organizational structure for NSPs and the efficient management of action plans. It is important to note that these last two facilitators were mentioned by only one of the professionals interviewed.

Thus, the data from this research shows that despite the publication of RDC No. 36 in 2013, there are still challenges in implementing the activities of the centers. This reflects the fact that progress in this field continues to be a challenge in healthcare institutions, and there are obstacles to be overcome to ensure the implementation of the guidelines of the National Patient Safety Program, aimed at strengthening the culture of safety in all healthcare facilities.

It is crucial to stress the importance of a thorough analysis of the organizational structure and the effective management of action plans by the NSPs. Organization and management play a fundamental role in transforming theoretical concepts into effective practices, consolidating a constructive and effective security culture. In addition, the research highlights the importance of exclusive professionals working in the NSP, in order to encourage engagement in the proposed activities and the performance of quality work.

Authors' contributions

Portugal FB participated in the conception of the research question, methodological design, data analysis, interpretation of results, writing of the scientific article. Coslop S participated in the conception of the research question, methodological design, data collection, writing of the scientific article. Costa MSC and Wandekoken KD participated in the methodological design, data analysis, interpretation of results and writing of the scientific article. All the authors have reviewed and approved the final version and are in agreement with its publication.

Conflicts of interest

No financial, legal or political conflicts involving third parties (government, private companies and foundations, etc.) have been declared for any aspect of the submitted work (including but not limited to grants and funding, participation in advisory boards, study design, manuscript preparation, statistical analysis, etc.).

Indexers

The Journal of Contemporary Nursing is indexed by DOAJ and EBSCO.

References

1. Resolução da Diretoria Colegiada – RDC nº 36, de 25 de julho de 2013 (Brasil). Institui ações para a segurança do paciente em serviços de saúde e dá outras providências. [Internet]. Diário Oficial da União. 2013 jul. 26. Available from: https://portaldeboaspraticas.iff.fiocruz.br/biblioteca/resolucao-da-diretoria-colegiada-rdc-no-36-de-25-de-julho-de-2013/

2. Portaria GM/MS nº 529, de 1º de abril de 2013 (Brasil). Institui o Programa Nacional de Segurança do Paciente (PNSP). [Internet]. Diário Oficial da União. 2013 abr. 1. Available from: https://bit.ly/4bHMoT0

3. Agência Nacional de Vigilância Sanitária (Brasil). Implantação do Núcleo de Segurança do Paciente em Serviços de Saúde – Série Segurança do Paciente e Qualidade em Serviços de Saúde [Internet]. Brasília: ANVISA; 2016. Available from: https://www.gov.br/anvisa/pt-br/centraisdeconteudo/publicacoes/servicosdesaude/publicacoes/caderno-6-implantacao-do-nucleo-de-seguranca-do-paciente-em-servicos-de-saude.pdf/view

4. Cavalcante EFO, Pereira IRBO, Leite MJVF, Santos AMD, Cavalcante CAA. Implementation of patient safety centers and the healthcare-associated infections. Rev Gaúcha Enferm. 2019;40(esp):e20180306. https://doi.org/10.1590/1983-1447.2019.20180306

5. Siman AG, Braga LM, Amaro MOF, Brito MJM. Practice challenges in patient safety. Rev Bras Enferm. 2019;72(6):1504-11. https://doi.org/10.1590/0034-7167-2018-0441

6. Prates CG, Magalhães AMM, Balen MA, Moura GMSS. Patient safety nucleus: the pathway in a general hospital. Rev Gaúcha Enferm. 2019;40(esp):20180150. https://doi.org/10.1590/1983-1447.2019.20180150

7. Macedo RS, Bohomol E. Organizational structure analysis of the Patient Safety Center in hospitals of the Sentinel Network. Rev Gaúcha Enferm. 2019;40(esp):20180264. https://doi.org/10.1590/1983-1447.2019.20180264

8. Andrade LEL, Lopes JM, Souza Filho MCM, Vieira Júnior RF, Farias LPC, Santos CCM, et al. Patient safety culture in three Brazilian hospitals with different types of management. Ciênc Saúde Colet. 2018;23(1):161-72. https://doi.org/10.1590/1413-81232018231.24392015

9. Ministério da Saúde (Brasil), Cadastro Nacional de Estabelecimentos de Saúde do Brasil. Estabelecimentos por tipo – Brasil [Internet]. Brasília: Ministério da Saúde; 2021. Available from: http://tabnet.datasus.gov.br/cgi/deftohtm.exe?cnes/cnv/estabbr.def

10. Bardin L. Análise de conteúdo. 1 ed. Lisboa: edições 70; 2011.

11. Nascimento LH, Guerra GM, Nunes JGP, Cruz DALM. Strategies for nurse retention in hospitals: scoping review protocol. Rev Enferm Referência. 2019;4(22):161-8. https://doi.org/10.12707/RIV19033

12. Lemos GC, Azevedo C, Bernardes MFVG, Ribeiro HCTC, Menezes AC, Mata LRF. The patient safety culture in the scope of nursing: theoretical reflection. R Enferm Cent O Min. 2018;8:e2600. https://doi.org/10.19175/recom.v8i0.2600

13. Heidmann A, Trindade LF, Schmidt CR, Loro MM, Fontana RT, Kolankiewicz ACB. Contributive factors for the consolidation of patient safety culture in the hospital environment. Esc Anna Nery. 2020;24(1):e20190153. https://doi.org/10.1590/2177-9465-EAN-2019-0153

14. Burgener AM. Enhancing Communication to Improve Patient Safety and to Increase Patient Satisfaction. Health Care Manag. 2017;36(3):238-43. https://doi.org/10.1097/HCM.0000000000000165

15. Lee CT-S, Doran DM. The Role of Interpersonal Relations in Healthcare Team Communication and Patient Safety: A Proposed Model of Interpersonal Process in Teamwork. Can J Nurs Res. 2017;49(2):75-93. https://doi.org/10.1177/0844562117699349

16. Bordignon M, Monteiro MI. Predictors of nursing workers' intention to leave the work unit, health institution and profession. Rev Latino-Am Enfermagem. 2019;27:e3219. https://doi.org/10.1590/1518-8345.3280.3219

17. Habahbeh AA, Alkhalaileh MA. Effect of an educational programme on the attitudes towards patient safety of operation room nurses. Br J Nurs. 2020;29(4):222-8. https://doi.org/10.12968/bjon.2020.29.4.222

18. Costa EAM, Lobão WM, Ribas CLM, Passos NM. Patient safety in health services: an analysis in the city of Salvador, Bahia. Rev SOBECC. 2020;25(1):17-24. https://doi.org/10.5327/Z1414-4425202000010004

19. Costa EAM, Lobão WM, Riba CLM, Passos NM. Patient safety in large hospitals. Rev Enferm UFPE Online. 2020;14:e243324. https://doi.org/10.5205/1981-8963.2020.243324

20. Siman AG, Brito MJM. Dimension prescribed and realyity of practices of health professionals in the context of patient safety. Rev Enferm UERJ. 2018;26:e23703. https://doi.org/10.12957/reuerj.2018.23703

21. Ribeiro R, Servo ML, Silva Filho AM. Patient safety culture in a public hospital. Enferm Foco. 2021;12(3):504-11. https://doi.org/10.21675/2357-707X.2021.v12.n2.4240

22. Costa BD, Ramos D, Gabriel CS, Bernardes A. Patient safety culture: evaluation by nursing professionals. Texto contexto Enferm. 2018;27(3):e2670016. https://doi.org/10.1590/0104-070720180002670016

23. Schmitt MD, Costa DG, Massaroli A, Lorenzini E, Lanzoni GMM, Santos JLG. Analysis of theses and dissertations on risk management in the health area in Brazil. Rev Min Enferm [Internet]. 2020;24:e1352. Available from: http://www.revenf.bvs.br/scielo.php?script=sci_arttext&pid=S1415-27622020000100271

24. Levine KJ, Carmody M, Silk KJ. The influence of organizational culture, climate and commitment on speaking up about medical errors. J Nurs Manag. 2020;28(1):130-8. https://doi.org/10.1111/jonm.12906

25. O'Donovan R, Ward M, Brún A, McAuliffe E. Safety culture in health care teams: A narrative review of the literature. J Nurs Manag. 2019;27(5):871-83. https://doi.org/10.1111/jonm.12740