

Difficulties to implement patient safety strategies: perspectives of management nurses



Dificuldades para implantar estratégias de segurança do paciente: perspectivas de enfermeiros gestores

Dificultades para implantar estrategias de seguridad del paciente: perspectivas de enfermeiros

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ABSTRACT

Objective: To understand the difficulties to implement patient safety strategies in the hospital environment from the perspective of nurse managers.

Methods: Descriptive, exploratory and qualitative study, carried out in four public university hospitals, using a semi-structured interview script, from January to March 2015. The sample was of 72 nurses. Content analysis was carried out, in the thematic modality.

Results: The following categories were identified: Inadequate sizing of nursing staff; Lack of support of the top management: from policies to concrete actions and; Lack of adherence of the professionals to patient safety strategies.

Conclusions: In order for the institution to succeed in the implementation of patient safety strategies, it is necessary to have a continuous and permanent education policy, to raise awareness and to involve professionals from the top management to the front line employees.

Keywords: Patient safety. Nursing. Health manager. Risk management.

RESUMO

Objetivo: Compreender as dificuldades para implantação de estratégias de segurança do paciente no ambiente hospitalar na perspectiva de enfermeiros gestores.

Métodos: Estudo descritivo, exploratório, qualitativo, realizado em quatro hospitais universitários públicos, utilizando roteiro de entrevista semiestruturada, em janeiro a março de 2015. Amostra composta por 72 enfermeiros. Realizada análise de conteúdo, na modalidade temática.

Resultados: Identificaram-se as seguintes categorias: Dimensionamento do pessoal de enfermagem inadequado; Falha no apoio da alta direção: das políticas às ações concretas e; Déficit de adesão dos profissionais às estratégias de segurança do paciente.

Conclusões: Para que a instituição obtenha êxito na implantação de estratégias de segurança do paciente faz-se necessário a instituição contar com serviço de educação continuada e permanente, sensibilizar e envolver desde a alta gestão aos colaboradores da linha de frente.

Palavras-chave: Segurança do paciente. Enfermagem. Gestor de saúde. Gerenciamento de riscos.

RESUMEN

Objetivo: Comprender las dificultades para la implantación de estrategias de seguridad del paciente en el ambiente hospitalario en la perspectiva de enfermeros gestores.

Métodos: Estudio descriptivo, exploratorio, cualitativo, realizado en cuatro hospitales universitarios públicos, utilizando guión de entrevista semiestruturada, en enero a marzo de 2015. Muestra compuesta por 72 enfermeros. Realizado análisis de contenido, en la modalidad temática.

Resultados: Se identificaron las siguientes categorías: Dimensionamiento del personal de enfermería inadecuado; Fallo en el apoyo de la alta dirección: de las políticas a las acciones concretas y; Déficit de adhesión de los profesionales a las estrategias de seguridad del paciente.

Conclusiones: Para que la institución obtenga éxito en la implantación de estrategias de seguridad del paciente se hace necesario la institución contar con servicio de educación continua y permanente, sensibilizar e involucrar desde la alta gestión a los colaboradores de la línea de frente.

Palabras clave: Seguridad del paciente. Enfermería. Gestor de salud. Gestión de riesgos.

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■ INTRODUCTION

Throughout history, though indirectly, the safety of the patient has been discussed as a minimum requirement for the quality of care, as shown by Hippocrates more than two thousand years ago when he said: “*primun non nocere*” or “first not to hurt”⁽¹⁾. Later, another landmark was reiterated by Florence Nightingale when announcing “it may seem a strange principle to say that, as a basic requirement, in a hospital, harm should not be caused to the patient”⁽²⁾. In this context, it is possible to notice the historical restlessness about a (in) secure assistance provided to the patient.

In 1999, the report “to Err is human: building a safer health system” was published in the United States of America (USA). It found that between 44 and 98 thousand deaths were caused by errors in health care, and became a landmark for the beginning of the world movement for patient safety⁽³⁾.

In Brazil, decree no. 529/2013 of the Ministry of Health, instituted the National Program for Patient Safety (PNSP), with the aim to promote and support the implementation of initiatives aimed at patient safety⁽⁴⁾. In the same direction the Resolution of the Directors Board (RDC) no. 36, also from 2013, establishes concrete actions for the promotion of safe care, such as: the correct identification of the patient; effective communication between health professionals; security in the prescription, use and administration of drugs; safe surgery; hand hygiene to prevent infections; prevention of injury by pressure, and falls⁽⁵⁾.

The implementation of these actions is the minimum condition to find advances in the field of safe care⁽⁴⁾. However, the existence of organizational and individual barriers is still a reality for the consolidation of these strategies⁽⁵⁾, and this setting has contributed to the growing number of adverse events caused by a poor communication, low compliance to the identification of the patient; absence in the fulfillment of the protocols of prevention; and errors in the administration of drugs⁽⁶⁾. In a retrospective review of 1574 hospitalizations in the Republic of Ireland, the prevalence of adverse events was of 12.2%, with an incidence of 10.3 events per every 100 admissions, and more than 70% of the events were considered preventable. In addition, 9.9% of the events have caused permanent damage, and 6.7% have contributed to death. Such events increased 6.1 days of hospital stay, which represents a cost of 5550 euros per event⁽⁷⁾.

In this context, once the need to overcome the barriers that prevent or minimize the effect of patient safety actions is recognized, it is assumed that knowing the difficulties that permeate the implementation of such strategies can be a useful beginning to increase the (re) planning and

implementation of them with a focus on safe care, which justifies the execution of investigations focused on this theme. In this situation, the importance of the nurse makes itself felt, since the role of this professional goes beyond the direct assistance, involving the management of care. Therefore, the nurse is a strategic player in the consolidation of the guidelines for safe care⁽⁵⁻⁷⁾.

Considering the above, this study is based on the question: what are the main difficulties in the implementation of strategies for patient safety, referred by nurse managers? Its aim is to understand the difficulties for the implementation of strategies for patient safety in the hospital environment from the perspective of nurse managers.

■ METHODOLOGICAL PATHWAY

This article originated from the dissertation entitled “Patient Safety in the perspective of nurse managers”, presented to the Nursing Post-graduation Program of the State University of Maringá⁽⁸⁾.

Descriptive and exploratory study of qualitative approach conducted with nurse managers, working in four public university hospitals, located in the state of Paraná.

It is worth mentioning that the descriptive research makes it possible to describe the characteristics of a determined population or phenomenon, investigate the opinions, attitudes, beliefs, and, also, to discover the existence of associations between the variables studied⁽⁹⁾. Complementarily, an exploratory approach enables the researcher to formulate more precise problems or create hypotheses that can be investigated in the future⁽⁹⁾.

The setting of this study was composed of four hospital organizations, that in this study were called Hospital I, Hospital II, Hospital III and Hospital IV. The first hospital is located in the East region of the State and is a federal hospital with 406 beds. The second, in the North region of the State, is a state hospital, and has 313 beds. Hospital III is in the Northwest region of the state and is a state hospital with 123 beds. Finally, Hospital IV, located in the West region of the State, is also a state hospital and has 195 beds.

The research participants were nurses who did not perform direct care activities to the patient, the “nurse managers”, and who accepted to participate in the study. It is worth mentioning that addressing nurses in management positions was intentional, because they are responsible for the execution of organizational goals, for example the deployment of security strategies, the focus of this investigation⁽⁸⁾.

The inclusion criteria were to have been acting for more than a year in the institution and to have been in the job for at least six months. The exclusion criteria included

those who were not able to participate in the study, who refused to participate, and those who were on medical leave or on vacation.

The data were collected between January and March 2015, through a semi-structured recorded interview, with the following question: Talk to me about the difficulties in the implementation of the strategies for patient safety in this hospital.

Subsequently to the interviews, the data were transcribed in full, and then manually analyzed, through the technique of Content Analysis, thematic modality⁽⁹⁾.

In the pre-analysis each interview was read superficially/floating, highlighting the points of interest, which was followed by in-depth and thorough readings of all the material, with encoding of the messages existing in the texts⁽⁹⁾. Stands out that the excerpts of the reports have been edited to correct grammatical errors without, however, changing their content.

To preserve the identification of the participants, the passages were coded with the letter "E" meaning "Interview", followed by an Arabic numeral indicative the chronological order of realization of the interview, and the letter "H", to which a number from 1 to 4 was randomly assign to indicate the different "Hospitals" where the interview took place.

This study is part of a larger project entitled "Management in Health/Nursing: Quality and Patient Safety at University Hospitals", that was submitted to the Committee of Ethics in Research Involving Human Beings, of the State University of Maringá, and was approved under protocol number 1.158.794. It should be noted that the participants signed the Term of Free and Informed Consent after being informed about the research objectives.

■ RESULTS

The study included 72 nurses. 19 (26,4%) from H1; 28 (39%) from H2; 11 (15,2%) from H3 and; 14 (19,4%) from H4. In all hospitals, there was a higher prevalence of the females (H1= 94,7%; H2= 92,9%; H3=82%; H4=86%). Regarding age, 47,3% (n=19) of the nurse managers of H1 were between the ages of 50 and 59 years; 42,8% (n=12) from H2, and 63,7% (n=11) of the H3 were respectively between 40 and 49 years. In H4, 71,4% (n=10) of the nurses were between the ages of 30 and 39 years.

From the contend analysis, three categories emerged that reflected the difficulties in the consolidation of strategies for patient safety: *Inadequate sizing of nursing staff*; *Lack of support of the top management: from policies to concrete actions* and; *Lack of adherence of the professionals to patient safety strategies*.

Inadequate sizing of nursing staff

The study participants reported, as one of the barriers to consolidate the goals of patient safety, the inadequate sizing of the nursing staff, as can be noted in the *verbatim*:

[...] the lack of staff in the nursing team is a very important difficulty. We are not able to make progress with the implementation of the goals [of patient safety] (E2H1).

[...] we need more nurses to be able to work with more safety and quality (E21H2).

[...] the reduced of nursing staff prevents the implementation [of the safe care strategies] (E4H1).

The scarcity of human resources affects the quality of service that we want to offer (E5H4).

The nurse managers were emphatic to clearly describe that the insufficient number of workers, especially of the nursing team, is a key point that makes it difficult to offer a safe and qualified care, and therefore, to the implementation of strategies for patient safety:

The great difficulty, the obstacle that we have [for the implementation of strategies for patient safety] is the restriction of the number of professionals, because there are many medical consultations, procedures, patients with high degree of complexity and a reduced number of nursing professionals to do these things (E11H3).

It would be much better for the patient if there were more staff to take care of them (...) they would be more secure (E9H2).

[...] I think that the great barrier to anything is the lack of workers because then, everyone gets overwhelmed and we don't have time to provide better quality assistance (E1H3).

The discontentment of the nurse managers with the sizing of the nursing team reflected in the difficulties to implement the safety strategies for the patient.

Lack of support of the top management: from policies to concrete actions

Another aspect mentioned by nurse managers in the study, in relation to the difficulties for the implementation

of safe practices, concerns the shortness or even absence of support from top management:

The Direction of the hospital must be involved, otherwise there will be no progress in the issues of security [for the patient] (E2H1).

The lack of encouragement of top management is a difficulty to implement security strategies for the patient (E2H4).

There is a lack of personal and collective stimulation for the employees, I feel alone in everything that I plan, we don't have support from the top management (E8H3).

The biggest issue [difficulty], in my opinion, is that the Director [of the hospital] must prioritize these actions and strategies [of patient safety], so that the group has success in its actions (E4H3).

In this thematic category, the absence of an institutional policy concerned with the safety of the patient was also mentioned, which should start by the top management of the institution, as described below:

[...] I feel the lack of a policy dedicated to the safety [of the patient], this is missing here [the hospital] (E11H2).

What made it difficult [to implement strategies for patient safety] was this issue that there isn't a policy of quality and security in the institution. This gives us the impression that the search for quality and patient safety is because a specific person wants to. The other [employees] are not able to understand that this must be an institutional concern (E11H2).

After that, the nurse managers reported that the support deficit of the top administration of the hospitals, interfered with the dissemination of the safe care police and in the implementation of concrete actions aimed at the safety of the patient:

In addition to the resistance of the professionals, perhaps the resistance of the Management also. The lack of appreciation of this service [the Patient Safety Centers], of the functions they perform (E3H4).

[...] another issue is when the Management does not assume this [the actions of patient safety] as a necessary strategy, this complicates the implementation of the strategies [of patient safety] (E7H4).

[...] the greatest difficulty is that the Management does not define who does what, because the lack of direction of the functions of each leadership [to implement actions aimed at patient safety] leads to work overload of the professionals and makes it difficult to provide patient care with quality (E10H4).

The reports presented in this category show the importance of the involvement and direction of the top administration for the success of the implementation of strategies aimed at the promotion of safe care. In addition, the nurses go further, referring that adhesion, of the staff working in direct care, to the strategies of patient safety, was also a barrier to the effective implementation of such actions.

Lack of adherence of the professionals to patient safety strategies

In addition to the difficulties listed on the inadequate dimensioning of nursing staff and in the lack of the support from the top management towards an effective implementation of the strategies for a safe care, the nurse managers also mention that professionals involved in direct assistance do not always adhere to the actions proposed and/or do not understand the reasons of such initiatives:

[...] the fact the nurse always thinks that it is more work, that it is one more task, an obligation, prevents the Program's [of patient safety] consolidation (E3H1).

[...] you have professionals that don't understand the importance [to promote security actions], and boycott what will be implemented, this is a weakness (E11H1).

[...] the existence of many people who still do not recognize the importance of these actions [of patient safety], that are opposed to changes, who see no sense in doing it and end up boycotting the implementation of the goals of patient safety (E11H1).

I feel a lot of difficulty to convince the colleagues [health care professionals] that that action [of patient safety] is important (E22H2).

The nursing staff members have difficulties to incorporate into their routine the safety goals. For example, the importance of hand hygiene (E8H2).

In addition to the lack of recognition of the importance of promoting actions of security, another aspect related to

the lack of adhesion is the resistance to changes and to adaptations in the institutional routines:

[...] it takes you more time to achieve the objectives because, you have to repeat [the security measures] one, two, anyway, as many times as necessary. We have a profile of resistant workers, who do not accept change (E11H1).

There is resistance of professionals from all levels and lack of perception of the importance, perhaps due to little knowledge, perhaps because of a lack of motivation. We know that there are professionals that are not willing to insert new routines in their work process and this makes implementation [of strategies for patient safety] difficult (E17H1).

People have resistance to everything here in the hospital, the professionals resist everything that is new, and this hinders the progress [of the implementation of the goals of patient safety] (E6H4).

It is noteworthy that in the perception of one of the participants the resistance to change resulted in feelings of demotivation and distress for professionals who seek to promote improvement in the area of security, as indicated below:

[...] the lack of personal stimulation and collective encouragement in order for the change to happen. I have the perception that everything that you plan you do it alone. You plan an action, then one or two people buy the idea. But ten people try to knock your idea. You fight, fight and cannot get anywhere. This is distressing (E8H3).

Through the *verbatim* presented, it is observed that the difficulty of the professionals to adhere to the changes impacts negatively on the implementation of improvements related to patient safety.

■ DISCUSSION

Prior to the discussion of the themes found, it is important to reiterate, again, the value that the testimony from nurses in administrative positions has in the whole context of the management of actions of patient safety. This is because the consolidation of actions that improve safe care is, inevitably, permeated by a rational, persistent and strategic management⁽⁸⁾.

Another point to highlight is the fact that this research was carried out in public university hospitals, which constitutes a particularity, because at the same time that in these

places there are continuous educational activities and a strong incentive to researches, it is known that the processes of change and improvement, in these institutions, are time-consuming, and this demands from the hospital management permanent and compatible actions that are in accordance with the reality of a service of high complexity administrated by the government⁽¹⁰⁾.

Regarding the aspect pointed out as being of greater importance, the inadequate size of the professional team, a study points out that the deficiency in this variable compromises the quality of care⁽⁶⁾. This is because, as another study indicates, there is a higher propensity to the occurrence of incidents in environments in which there is a deficit of professionals⁽¹¹⁾.

To explain the magnitude of this situation, a metanalysis of 87 studies explored the relationship between nursing human resources dimensioning and in-hospital mortality. This study found a reduction of 2% to 7% in the mortality rates in the institutions in which there was adequate dimensioning of the nursing team⁽¹²⁾. Another study, conducted in South Korea, corroborates the above-mentioned finding, upon concluding that an unsafe care has a direct relation with a reduced number of nurses⁽¹³⁾.

The inadequacy in the number of workers can also influence job satisfaction, which is an indicator of the quality of human resources management⁽¹⁴⁾. In this context, even though the nurse managers cited the undersizing as a fact that hinders the implementation of strategies of patient safety, it is undeniable that this reality also contributes to other undesirable outcomes in hospital organizations.

In the idea that one of the main motivators for the satisfaction of the health care professional is the quality of care and that this has direct relation with the safety of the patient, it is important to mention the concept of the "Quadruple Aim", which is a strategy to improve the health care system, focused on four dimensions: to improve the experience of the individual in relation to care; improve the health of populations; reduce the per capita cost of health care; and improve the experience of health care assistance⁽¹⁵⁾. In the latter, the importance of health professionals in providing quality and safe care stands out⁽¹⁶⁾.

About the above-mentioned principles, it is understood that, by ensuring to the health professionals happiness and meaning at work, the result can be a feeling of success, and consequently, reflect in the provision of an excellent and safe care. Such feeling, which is certainly the product of many factors, possibly has a relation with the acceptance of the management strategies adopted in the institution.

Regarding the support of top management for the implementation of actions aimed at patient safety, a study

with 91 nursing professionals working in pediatric emergency services found a greater fragility in the dimension "Support from hospital management for patient safety" with 55% of negative responses⁽¹⁵⁾. In this context, the top management has an important role in the consolidation of security practices, aspect that is also perceived by nurse managers, as they realize that the deficiency of support from the high-level management, has a negative impact in the implementation of strategies with a focus on safe care.

The top management has a primordial decision making power to promote the improvement of the quality and the success of the implementation of the goals of patient safety⁽¹⁷⁾. Thus, it is necessary that the members of this administration support the development of actions and processes, and engage themselves directly in the issues related to a safe care⁽¹⁸⁾.

The support of the top management passes through the process of recognition and understanding of the importance of the Patient Safety Centers (PSC) at hospital institutions, because they are responsible for the selection and composition of the PSC, giving to their members authority, responsibility, and power to perform the actions of the Patient Safety Program(PSP)⁽³⁾.

Regarding the deficit on the adherence of professionals to the strategies of patient safety, it is known that in organizations where the values are not grounded in the culture of safety, the adherence of professionals to the safety of the patient tends to be poor. Literature⁽⁵⁾ points out that non-compliance can generate negative implications in the success of the security actions developed. The lack of awareness about the importance of adopting safe practices when providing assistance, as well as the resistance to changes, can be understood as a challenge to the implementation of the security program, considering that for organizational changes to be effective it is necessary to raise awareness and engage different professionals about the promotion of a safe care environment⁽⁸⁾.

Specifically about the awareness of the importance of safe practices, the literature portrays that the concept of security has evolved between health care professionals and other areas present in the health institutions, including the top management, which encourages the involvement of the institution as a whole⁽¹⁹⁾. A study on adverse events suggests as a conduct to end the gaps in the adherence of the professionals, actions of continuous and permanent education, that promote discussion and dissemination of the thematic of patient safety and best practices⁽¹⁹⁾. Such initiatives are considered as promising because they can result in a stimulus to the adoption of proactive conducts by the health professionals.

It should be noted that the engagement of people for the safety of the patient contributes to effective teamwork and to the co-responsibility among those involved. For this relation to happen and be consolidated, an approach in all areas involved in the health institution is necessary, mainly from the leadership, to promote conditions of work that encourage partnerships and practices for the implementation of a safety culture⁽²⁰⁾. This organizational change can be considered challenging; however, it is extremely significant to the advance of an excellent and safe care.

■ FINAL CONSIDERATIONS

The nurses listed the reduced size of the nursing team, the lack of support from the top management and the lack of compliance from direct care professionals as major difficulties for the implementation of strategies of patient safety. However, it should be noted that this process of change of institutional culture to a culture of safety is determined by the need for investment in initiatives of permanent and continuous education. In addition, it is necessary to raise awareness and involve from the top management to the employees of the front line, aiming at offering an excellent and safe care, especially in the context of an inadequate number of professionals.

There are limitations in this research, such as the participation of workers of the same professional category, working only in public university hospitals. However, it is assumed that the study has value because, in the context of practice, it can contribute to the institutions to be more assertive in the planning and implementation of strategies for the promotion of security. As to the scientific field, the study contributes to the acquisition of knowledge on the subject of patient safety, more specifically regarding its implementation and/or development, by pointing out the difficulties that emanated from the perception of nurses with leadership position. And in the educational area, the discussion about patient safety and promotion of safe practices may support the development of skills and management expertise during the period of education, consequently improving the professional performance.

■ REFERENCES

1. Wachter RM. Compreendendo a segurança do paciente. 2. ed. Porto Alegre: AMGH; 2013.
2. Kohn LT, Corrigan JM, Donaldson MS. To err is human: building a safer health system. Washington, D. C.: Institute of Medicine/National Academy Press; 2000.
3. Ministério da Saúde (BR). Portaria nº 529, de 1º de abril de 2013. Institui o Programa Nacional de Segurança do Paciente. Brasília (DF); 2013.

4. Agência Nacional de Vigilância Sanitária (BR). Resolução - RDC nº 36, de 25 de julho de 2013. Institui ações para a segurança do paciente em serviços de saúde e dá outras providências. Brasília (DF); 2013.
5. Reis GAX, Hayakawa LY, Murasaki ACY, Matsuda LM, Gabriel CS, Oliveira MLF. Nurse manager perceptions of patient safety strategy implementation. *Texto Contexto Enferm.* 2017;26(2):e00340016. doi: <https://doi.org/10.1590/0104-07072017000340016>.
6. Duarte SCM, Stipp MAC, Silva MM, Oliveira FT. Adverse events and safety in nursing care. *Rev Bras Enferm.* 2015;68(1):144-54. doi: <https://doi.org/10.1590/0034-7167.2015680120p>.
7. Rafter N, Hickey A, Conroy RM, Condeil S, O'connor P, Vaughan D, et al. The Irish National Adverse Events Study (INAES): the frequency and nature of adverse events in Irish hospitals: a retrospective record review study. *BMJ Qual Saf.* 2017;26:111-9. doi: <https://doi.org/10.1136/bmjqs-2015-004828>.
8. Reis GAX. Segurança do paciente na perspectiva de enfermeiros gestores [dissertation]. Maringá (PR): Programa de Pós-graduação em Enfermagem, Universidade Estadual de Maringá; 2016.
9. Richardson R J. Pesquisa social: métodos e técnicas. São Paulo: Atlas; 2017.
10. Bardin L. Análise de conteúdo. Lisboa: Edições 70, 2011.
11. Portulhak H, Espejo MMSB, Pacheco V. Public value scorecard: alternativa para avaliação de desempenho em hospitais universitários. *Rev Admin Hosp Inov Saúde.* 2018;15(1):110-26. doi: <https://doi.org/10.21450/rahis.v15i1.4780>.
12. Fagerström L, Kinnunen M, Saarela J. Nursing workload, patient safety incidents and mortality: an observational study from Finland. *BMJ Open.* 2018;8:e016367. doi: <https://doi.org/10.1136/bmjopen-2017-016367>.
13. Shekelle PG. Nurse-patient ratios as a patient safety strategy: a systematic review. *Ann Intern Med.* 2013;158(5_Part_2):404-9. doi: <https://doi.org/10.7326/0003-4819-158-5-201303051-00007>.
14. Cho E, Lee N-J, Kim E-Y, Kim S, Lee K, Park K-O, et al. Nurse staffing level and overtime associated with patient safety, quality of care, and care left undone in hospitals: cross-sectional study. *Int J Nurs Stud.* 2016;60:263-71. doi: <https://doi.org/10.1016/j.ijnurstu.2016.05.009>.
15. Bodenheimer T, Sinsky C. From triple to quadruple aim: care of the patient requires care of the provider. *Ann Fam Med.* 2014;12(6):573-6. doi: <https://doi.org/10.1370/afm.1713>.
16. Bordignon M, Monteiro MI, Mai S, Martins MFSV, Rech CRA, Trindade LL. Oncology nursing professionals' job satisfaction and dissatisfaction in Brazil and Portugal. *Texto Contexto Enferm.* 2015;24(4):925-33. doi: <http://dx.doi.org/10.1590/0104-0707201500004650014>.
17. Macedo TR, Rocha PK, Tomazoni A, Souza S, Anders JC, Davis K. The culture of patient safety from the perspective of the pediatric emergency nursing team. *Rev Esc Enferm USP.* 2016;50(5):756-62. doi: <https://doi.org/10.1590/s0080-623420160000600007>.
18. Silva ACMR, Loures PV, Paula KX, Santos NAR, Perígolo RA. Importância do núcleo de segurança do paciente: um guia para implantação em hospitais. *Rev Educ Meio Amb Saúde.* 2017 [cited 2018 Jul 25];7(1):87-109. Available from: <http://www.faculdededofuturo.edu.br/revista1/index.php/remas/article/view/134/205>.
19. Ribeiro HCCTC, Santos DS, Paula AO, Freire EMR, Alves M. Não conformidades em hospitais relacionadas à prevenção, controle de infecções e eventos adversos. *Rev Enferm UFPE online* 2016 [cited 2018 Jul 25]10(9):3344-51. Available from: <https://periodicos.ufpe.br/revistas/revistaenfermagem/article/view/11415/13198>.
20. Silva-Batalha EMS, Melleiro MM. Cultura de segurança do paciente: percepções da equipe de enfermagem. *HU Revista.* 2016 [cited 2018 Jul 25];42(2):133-42. Available from: <http://ojs2.ufrf.emnuvens.com.br/hurevista/article/view/2518/872>.

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