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Original Article

Reporting adverse events in a hospital environment from the perspective of nursing professionals

Notificação de eventos adversos em ambiente hospitalar sob a ótica dos profissionais de enfermagem

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ABSTRACT

Objective: to understand how adverse events are reported from the point of view of nursing professionals. **Methods:** a qualitative study was carried out with 38 nursing professionals. Data was collected using an electronic form of personal and professional characterization and guiding questions. Descriptive statistics were used to analyze the characterization data and thematic content analysis was used for the qualitative data. **Results:** 21 nurses and 17 nursing technicians participated, most young women from hospitals in four Brazilian states. Two categories emerged: Notification of adverse events, one more task to be carried out in daily work, and Notification and institutional treatment of adverse events, from a personal approach to a procedural one, with subcategories. **Conclusion:** notifications focus on filling in the institutional instrument, and there is a lack of clarity about what adverse events are. A punitive culture persists, but there seems to be a movement towards a procedural approach. **Contribution to practice:** we hope to help raise awareness of the issue and help institutions develop more effective reporting strategies to monitor patient safety and drive improvements.

Descriptors: Patient Safety; Risk Management; Hospital Units; Notification; Nursing.

RESUMO

Objetivo: compreender como ocorre a notificação de eventos adversos sob a ótica de profissionais de enfermagem. **Métodos:** estudo qualitativo, realizado com 38 profissionais de enfermagem. Coletaram-se os dados por meio de um formulário eletrônico composto por caracterização pessoal e profissional e por perguntas norteadoras. Para a análise dos dados de caracterização, utilizou-se estatística descritiva e para os qualitativos, análise de conteúdo na modalidade temática. **Resultados:** participaram 21 enfermeiros e 17 técnicos de enfermagem, em sua maioria, mulheres, jovens, de instituições hospitalares de quatro estados brasileiros. Emergiram duas categorias: Notificação do evento adverso: mais uma tarefa a ser cumprida no cotidiano de trabalho e Notificação e tratamento institucional dos eventos adversos: da abordagem pessoal à processual, com subcategorias. **Conclusão:** as notificações enfocam o preenchimento do instrumento institucional e identifica-se falta de clareza sobre o que são eventos adversos. Persevera uma cultura punitiva, no entanto, parece haver um movimento que sinaliza para uma abordagem processual. **Contribuição para a prática:** espera-se contribuir para a conscientização sobre a temática e para as instituições elaborarem estratégias de notificação mais efetivas no sentido de monitorizar a segurança do paciente e direcionar melhorias.

Descritores: Segurança do Paciente; Gestão de Riscos; Unidades Hospitalares; Notificação; Enfermagem.

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Introduction

It is estimated that one in 10 patients in hospitals is subject to an adverse event, i.e., an incident that causes them harm and may even result in death[1]. Between January and December 2023, 368,895 incidents related to health care were registered with the National Health Surveillance Agency, most of which occurred in hospitals and resulted in minor patient harm[2].

These notifications, made in healthcare institutions by professionals, patients, companions, and other citizens, are a crucial part of the process. The Patient Safety Centers send them to National Health Surveillance Agency[3]. Institutional reporting of adverse events is not just a call to action but a necessity. It identifies areas for improvement, encourages the proposal of improvement actions, and is a mandatory requirement of the National Patient Safety Program[4-5].

However, although many health professionals are aware of the need to report adverse events, there have been reports of difficulties in doing so for reasons other than fear of punishment and concern about the confidentiality of the process: lack of knowledge about what and how to report, professional disinterest, lack of feedback about the incident reported and uncertainty that reporting will result in improvements in the weakness in question[6-8].

Given its nonstop work in the hospital environment, nursing is known to be the team most involved in patient care. Therefore, nurses are more exposed to adverse events and are the professionals most commonly associated with formalizing such events[9].

However, reports that notifications are still based on fragile, punitive processes that are dissociated from the search for improvements put into perspective the need to demystify this process[6-9]. There are also gaps in the literature about how this notification occurs from the perspective of the professionals involved, beyond the care indicators, which justifies exploring this phenomenon. This approach can contribute to understanding the barriers and facilitators to adapt institutional processes to ensure more effective reporting of adverse events as a foundation for patient safety[10].

It is corroborated that international government bodies recommend searching for patient safety solutions based on scientific evidence and that research on the subject can contribute to a safety culture[1].

In this sense, and considering that the data from the notifications are the basis for monitoring safety and proposing actions for safe care, the question is: what is the notification of adverse events like in the day-to-day work of nursing professionals in hospitals?

The aim of this study was to understand how adverse events are reported from the point of view of nursing professionals.

Methods

This is a qualitative study conducted in a virtual environment via the Internet. It's important to note that our study adheres to the criteria set out in the Consolidated Criteria for Reporting Qualitative Research (COREQ), ensuring the highest standards of quality and reliability.

The participants were nursing professionals selected for convenience, taking into account the time allotted for data collection in the study schedule. They met the following eligibility criteria: they had to be 18 or over and have worked in a hospital as a nursing professional for at least three months.

It should be noted that the minimum period of experience of three months in a hospital, regardless of the type of employment relationship the participant had, was considered a minimum cut-off point for work adaptation and integration into the reality of the job. In this way, the study focuses on the current reality and the experiences of working in hospitals[11].

Data collection took place between September 2023 and January 2024. It was carried out using an instrument designed by the authors. The instrument had two parts: the participants' personal and professional characterization and the second of guiding questions.

The Google Forms digital form was used to

create the data collection instrument. This was made up of an initial digital section designed to explain the objectives and procedures of the study, fill in the participant's personal and individual e-mail address, and present the Informed Consent Form. When the participant agreed, a "forward" button on the home page directed them to a section explaining the eligibility criteria for checking the participant. The next section contained personal and professional characterization, followed by fields for answering six open questions, which included guidelines for the participant to provide detailed answers. These were: 1) What is an adverse event for you? 2) Have you ever reported an adverse event as a nursing professional? What type of event? 3) How do you report adverse events at the hospital where you work? 4) What is the institutional flow when you commit and report an adverse event? 5) Can you identify any factors that can help to ensure that adverse events are reported? 6) Can you identify any factors that could negatively affect reporting adverse events?

At the end of the self-completion process, a copy of the Informed Consent Form and a copy of the answers were automatically sent by Google Forms to the e-mail address provided by the participant.

The social networks Facebook, Instagram, and LinkedIn were used to invite participants to take part in the study. The participating nursing undergraduate researcher posted the link to the electronic form for self-completion on her profile. In addition, the WhatsApp messaging application was also used. The researchers circulated the invitation to their contacts who could meet the study criteria. They asked them to distribute the invitation among their peers to form a chain of references.

The personal and professional characterization data was tabulated in an electronic spreadsheet and presented descriptively. Content analysis in the thematic modality was used to analyze the qualitative data from the open questions[12]. To this end, the following phases were followed: pre-analysis, exploration of the material and treatment of the results, inference, and interpretation.

Thus, in the pre-analysis stage, the research corpus was organized, and the authors read the statements to gain a deeper understanding of the data, guiding the analysis in the subsequent stages. In the material exploration stage, assigning codes to the data was possible. These codes, represented by the units of records, were assigned based on the content of the data. At the end of the stage, the codes were organized by similarity to categorize the results. Finally, in the treatment of the results, inference, and interpretation stage, the data was organized into categories constructed inductively, in line with the study's objective[12].

To guarantee anonymity, alphanumeric combinations were used instead of names (P1-NT, P2-N, and so on, where P refers to the participant and the number refers to the order in which the form was filled in, NT refers to the nursing technician, and N refers to the nurse).

According to opinion no, the study complied with the guidelines regulating research with human beings and was approved by the Research Ethics Committee of the Federal University of Alfenas. 6.422.251/2023 and Certificate of Presentation for Ethical Appraisal 74605123.5.0000.5142.

Results

A total of 38 people participated in this study: 21 (55.3%) nurses and 17 (44.7%) nursing technicians. There was a predominance of female (78.9%) participants, aged between 20 and 39 (57.9%), married (57.9%), with up to eight years of training (44.7%) and up to 10 years working in a hospital (57.9%).

As for current professional experience, the time spent at the institution varied between three months and ten years for both professional classes. Twenty professionals (52.6%) worked in public hospitals, and 18 (47.4%) in private hospitals in 20 municipalities and four Brazilian states: Minas Gerais, São Paulo, Paraná, and Rio Grande do Sul. Twent nine (76.3%) institutions to which the participants were affiliated had hospital accreditation.

Analysis of the data from the answers to the open questions made it possible to identify two categories with subcategories. The first category, entitled Notification of adverse events: one more task to be carried out in everyday work, includes two subcategories: Notification as a task and transfer of responsibility and Lack of clarity about adverse events in health institutions. The second category, entitled Notification and institutional treatment of adverse events: from a personal to a procedural approach, includes three subcategories: Notification of adverse events marked by a punitive and hierarchically influenced process, Educational measures: dissonance between discourse and action and Notification of adverse events with a view to a culture of safety: a process under construction.

Adverse event notification: one more task to be completed in daily work life

One significant finding is the perceived need for more clarity about adverse events and what should be reported. From the participants' point of view, notifying adverse events is a task that ends once the institutional instrument is filled in, at which point responsibility is transferred to other actors, such as the supervising nurse or the quality service. There seems to be a need for more clarity about adverse events and, consequently, what should be reported as such.

Notification as a task and transfer of responsibility

In this subcategory, the participants' statements indicate that notification takes place to fulfill a task, focusing on filling in the institutional instrument: *Physical form, printed by the nursing supervisor* (P18- N). *In writing* (P3-N). *By computer system* (P9-N). *Filling in a form* (P37-E). *Through a form accessed by a QR code* (P13-N).

After filling in the form, there seems to be a transfer of responsibility from the notifying professional to other professionals/sectors, as exemplified in the following excerpts: *After filling in all the fields, the notification is sent, and the nursing and hospital management coordination has access to the notification* (P20-N). *The notification goes to the hospital's quality service* (P13-N). *To the appropriate people/sectors to deal with these matters* (P10-NT). *I report it to the supervising nurse* (P33-NT). *We await feedback* (P38-N).

Lack of clarity about adverse events in health institutions

This subcategory needs more clarity about what characterizes adverse events. Thus, some statements refer to incidents that affect patients and cause them harm: *It is an unexpected event capable of causing harm or damage to the patient* (P13-N). *A medical event that causes harm to the patient* (P22-N). *Everything that happens in the hospital that the professional team did not expect ends up causing the patient damage* (P14-N). *Any action that in any way harms the patient* (P 6-NT).

However, the participants also listed situations such as the use of adornment by professionals, occupational accidents with sharps, lack of identification of devices, and checks on medical records, among others, which conceptually do not characterize adverse events but rather non-conformities/occurrences on duty: *These are events that can cause possible physical, mental and moral damage to the health of the professional. Accident at work with sharps* (P4 - N). *A mistake that may or may not harm the patient. Forgetting to identify the equipment or it is out of date* (P7 - N). *Any incident with an employee/client; Accident with a sharp* (P31 - N). *Invalid devices for care. Identification of equipment, medicines, and procedures performed* (P24 - NT). *Access infiltrated, prescription not checked* (P17 - N). *A circumstance that did not occur correctly, an error that could cause harm to the patient/team/institution, surgical re-approach, use of adornments, failure to fill in the safe surgery time out, surgical infection, failure to pass the shift between sectors, absence of surgical/anesthetic term, absence of patient identification bracelet (broken), failure in the institutional blood reserve protocol* (P23 - N). *Forgetting to check medication* (P38 - N). *Please forward materials from the Sterilization and Material Center* (P28 - NT). *The sharps were disposed of in the wrong place, and the measurement was not checked* (P6- N).

It should be noted that the lack of clarity regarding adverse events was identified both in the speeches of the nurses and the nursing technicians.

Notification and institutional treatment of adverse events: from a personal to a procedural approach

The second category shows that, in the context of reporting adverse events, the punitive culture persists and that educational measures in the event of their occurrence seem to be adopted simplistically as capable of correcting errors rather than as a continuous and proactive process. However, statements referring to a procedural approach, with a view to a culture of safety, were also identified, although in little depth, which suggests that this is a process under construction.

Notification of the adverse event marked by a punitive and hierarchically influenced process

This subcategory showed that a punitive culture still permeates reporting adverse events. The testimonies of some participants point to perceptions that the people involved in these events don't work correctly and should, therefore, be taught, corrected, or penalized: *It is answered by the person notified, where the person responsible for the employee will teach them the correct way to act* (P24 - NT). *I've been informed for various reasons, one was that I needed to pay attention to when the antibiotic was finished and when the infusion time had passed. There is a space for the supervisor to write down the instructions and another space for the employee to explain what happened, signing at the end. The supervising nurse informs the employee about what happened and how it should be done* (P25 - NT). *We are warned or suspended and told how to avoid the event* (P29 - NT). *The people involved are interviewed* (P31 - N). *First, all the necessary care is given to the patient, then notification, and punishment or dismissal if required; if the same technician receives three punishments, he is dismissed; those responsible for the sector must always be attentive to what happens and be firm about notifications, not let it pass without correcting the team* (P14 - N).

The issue of punishment stood out in the statements of both nursing technicians and nurses. However, the nurses seem to take the position of notifiers, while the technicians take the position of being notified, which may indicate that the notification process also involves hierarchical issues. In this sense, a nursing technician said that it was not common in his reality for notifications to be made by his professional category: *I've only received notification. In the hospital where I work, it's not common for the nursing technician to make the notification, but for the nurse* (P25 - NT).

Given the punitive context that persists, statements about fear of reprisals as an obstacle to reporting were also identified in this study: *Many employees are afraid to report and be judged or coerced by their managers* (P19 - N). *The fear of exposing severe harm, for example, an adverse drug reaction related to the patient having previously reported the allergy, and yet there is no barriers and communication between staff and patient. In this and other cases, it can be understood that there will be some reprisal* (P23 - N). *Fear of harming a colleague* (P33 - NT). *The fact that they can be made anonymously, the fear of being identified, and the lack of knowledge of the importance of reporting for patient safety and improving care hinder reporting* (P13 - N).

Educational measures: dissonance between discourse and action

From the participants' point of view, educational measures are adopted when adverse events occur, as shown in this subcategory. However, the statements seem to point to the adoption of educational actions in a simplistic and one-off way, attributing the incident mainly to the lack of education of the professionals, which is far removed from a systemic vision, a relevant foundation for a culture of safety: *They (nurses) do continuing education to avoid errors* (P3 - NT). *Training, whenever necessary, we find errors in procedures every day, and through adverse events, we can educate employees* (P7 - NT). *There are bulletin boards with information on the subject and training, too* (P29 - NT). *It assesses the degree of the adverse event, and continuing education comes in to help answer all the employees' questions, giving mini-lessons* (P35 - N). *It can be like a conversation circle followed by continuing education. It's a bit quick because it's working hours, and everyone has things to do* (P34 - NT). *The lack of effectiveness of how educational activities are offered is mentioned by one participant: I sometimes see resistance from colleagues to listen or understand the subject* (P34-NT).

Reporting adverse events with a view to a culture of safety: a process under construction

This subcategory shows that although adverse event reporting has been perceived as a predominantly punitive process, some nurses see it from a broader perspective, which considers that its occurrence can highlight weaknesses in processes and, consequently, constitute an opportunity to seek improvements.

Thus, the nurses mention the opportunity to review protocols and processes, as well as the adoption of some quality tools, such as the Methodology for Analysing and Solving Problems (MASP), Root Cause Analysis, and the 5W2H Action Plan, to guide the proposals for solving the safety problems found: *Readjusting the protocol, discussing with management and the teams involved to come up with strategies for improvement* (P23 - N). *Notification is already a strategy for identifying what events are happening in the institution to avoid them and determine the reason for the events* (P20 - N). *Through notification, processes are implemented to reduce recurrences, such as allergy bracelets, training on safe transportation raising grids, and using scales to reduce phlebitis cases. Reporting aims to identify and correct faults to improve care* (P19 - N). *We report the occurrence of the incident as the person responsible for notifying the incident; we describe below the conduct taken in the face of the incident; we do the root cause analysis and explain what caused the failure; then there is the 5W2H action plan* (P38 - N). *We hold a meeting, carry out the MASP, and draw up the action plan; we monitor the effectiveness of the action plan and the achievement of indicators* (P12 - N).

In addition, the non-punitive safety culture was highlighted in the statements of some nurses: *Creating a culture in the institution that notification is not something punitive, but rather a warning of the need to improve patient care or the work environment for all the teams involved* (P23 - N). *The team should understand that the notification is not made to punish the team but to understand why there were failures and what strategies should be implemented to improve care* (P20 - N).

Discussion

Regarding personal and professional characterization, the predominance of young female professionals is similar to the characteristics of the Brazilian nursing workforce reported in the literature[13].

In the first category, Notification of adverse events: one more task to be carried out in daily work, the participants' statements indicated that notifying adverse events was the fulfillment of a task, especially the completion of printed or electronic forms, with subsequent transfer of responsibility from the notifier to other professionals or sectors, such as nursing coordination, quality service, or institutional management.

Although voluntary reporting systems based on printed or computerized instruments are essential for recording these incidents, the focus on the instrument, as identified in this study, may indicate weaknesses in the process[3,14].

This may be related to the need for more clarity among professionals regarding the notification of adverse events as a process that guides the search for improvements based on the communication of this event. It also raises questions about the extent to which the professionals involved receive feedback on proposed actions to prevent future occurrences[6]. This scenario may also reflect the need for more clarity among professionals about their role as caregivers from a perspective that goes beyond simplistic actions related to fulfilling tasks.

The participants' statements also pointed to a mistaken perception of adverse events. In this respect, it is worrying that most participants reported working in accredited institutions, which must have patient safety as a cornerstone and comply with accreditation systems' requirements.

Thus, incidents involving harm to patients were mentioned, which was in line with the definitions of the World Health Organization and the National Patient Safety Program, as well as other diverse situations[1,4]. However, there is a lack of clarity about the types of incidents that should be reported and the need to differentiate them from complaints and other occurrences[3,15].

The second category, notification and institutional treatment of adverse events, from the personal to the procedural approach, shows that the punitive context persists in nursing professionals' perceptions, as they present statements about fear of reprisals as an intervening factor in notifications.

It is confirmed that fear and a punitive institutional stance have been reported nationally and internationally[9,16-18]. An example is the organizational barriers to recording adverse events found in a large hospital in Iran. Nurses highlighted the fear of punishment and legal consequences, the lack of anonymity for recording their mistakes, and the perception of reporting as pointing out the errors of coworkers[19].

In Brazil, nursing professionals working in a public hospital perceived that notifications focused on people rather than the issues surrounding adverse events. This seems far removed from the just culture[9,20], which stipulates that there should be appropriate treatment for professionals who report incidents and is a premise for establishing a safety culture[20].

In this study, although the punitive culture was evident in the statements of nurses and nursing technicians, the nurses seemed to be the notifier. In contrast, the technicians took the position of being notified. This hierarchical issue is similar to findings, which indicate that notifications tend to be concentrated on nurses who notify adverse events[14,16,21].

However, the fact that the nursing technician is closer to the patient's direct care consequently places them in a situation where they are more likely to be involved in adverse events. In contrast, the nurse, as they manage the care and supervise the team, sometimes prioritizes administrative actions that distance them from direct care. This fact is reflected in the statements that point to nurses as notifiers. They reinforce the social division of nursing work and ratify a weakened stance among nurses in taking ownership of the care and management dimensions of their work process in an interrelated way[22].

Thus, although notifications are the responsibility of the multi-professional team and can even be carried out by the patients themselves, restricting this activity to nurses has been identified as a factor that hinders this process, which is fundamental for monitoring patient safety[17].

Hierarchical relationships can lead to difficulties in communication and establishing trust with the team, weakening the safety culture and reinforcing perceptions of fear and punishment[6-7,23]. In this context, educational measures also seem to be aligned with the punitive culture, being applied occasionally when an adverse event occurs. This strategy appears to corroborate the idea that adverse events occur due to a lack of education for professionals and not due to process flaws.

Although the importance of educational actions is unquestionable in reducing errors, they need to be aligned with a safety culture by adopting strategies to improve processes[8,24]. It is important to note that some nurses reported this approach since they view notification from a broader perspective, which considers that the occurrence of the event can highlight weaknesses and, consequently, constitutes an opportunity to seek improvements.

In this respect, weaknesses have been reported in the dimensions of patient safety culture in Brazilian hospitals[25]. There was also a low perception of safety culture in Latin American hospitals, although organizational learning with a view to continuous improvement was a prominent dimension[26].

The findings of this study also indicate that safety culture is still a process under construction. This is because reflections on patient safety are relatively recent compared to the historical trajectory of healthcare, which follows the development of societies; also, on the national scene, the National Patient Safety Program itself, which dates back to 2013, is a young initiative[4].

In the search for improvements, based on the notification of adverse events, the statements of some nurses mentioned the review of protocols and processes and the adoption of some quality tools to explore and find solutions to problems.

When these tools are included in the professionals' work process and used continuously, they make

it possible to analyze, measure, and support the proposition of solutions to institutional problems and thus support the development of practices committed to continuous improvement[27]. As an example of this, in a Brazilian neonatal intensive care unit, the use of the quality tools Brainstorming, Checklist, and Pareto diagram to work on failures in checking the emergency trolley resulted in an improvement in the rate of adherence to the checking procedure by the professionals[28].

The use of a tool to improve risk management, bow tie, has also been reported. Through workshops using this tool, care and administrative workers were able to contribute to risk analysis and process review, prioritizing the adoption of a learning culture[29].

Adopting quality tools should be based on a perspective of alignment between the management and care areas. In addition, the sustainability of improvement projects and actions must reflect a new way of working that goes beyond one-off actions and complements the work process[27,30].

However, even though some nurses mentioned looking at continuous improvement, the results highlight adopting quality tools in response to a particular event and educational actions. Thus, it resembles a reactive, complaint-conduct process, reflecting the traditional healthcare model. This perspective of adverse event reporting can contribute to punitive and hierarchical treatments, reinforcing that errors must be corrected with punctual and individual actions. This can inhibit reporting adverse events and, consequently, hinder the consolidation of safe care.

It is suggested that studies be carried out looking at the reporting of adverse events from an institutional perspective, encompassing the actions taken by hospital institutions in response to reported events and those directed at the professionals involved in their occurrence.

Study limitations

A limitation of this study is that the participants gave summarized and possibly not very detailed answers to the data collection instrument. However, the researchers expected this limitation, took it into account when choosing the data collection method, and did not jeopardize the achievement of the study's objective.

Contributions to practice

It is hoped, indirectly, to contribute to raising awareness of the issue, both regarding professional notification and the strategies to be used by institutions to make notifications more effective in monitoring patient safety and targeting improvements. In addition, the aim is to overcome the punitive culture that seems to permeate the process.

Conclusion

Notifying adverse events is considered to be focused on filling out institutional instruments and resembles the fulfillment of a task, with the transfer of responsibility after the report. Also, there is a lack of clarity about what qualifies as an adverse event.

It can be seen that the notification process is permeated by a punitive culture, in which an error is considered to be a failure for the professional, who receives, as a countermeasure, simplistic resolutions that include sanctions or educational actions to correct a failure. On the other hand, there appears to be a movement towards a procedural approach, with the adoption of tools for understanding and proposing solutions to problems, albeit incipiently.

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Authors' contribution

Conception and design or data analysis and in-

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