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Nurses' Perceptions of Patient Safety and Errors in Nursing Practice: A Qualitative Study

Hemşirelerin Hasta Güvenliği ve Hemşirelik Uygulamasındaki Hatalarla İlişkili Algıları: Nitel Bir Çalışma

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ABSTRACT

Despite all the advances in the healthcare sector, many adverse events that threaten patient safety still occur. Among these errors are those involving nursing. The study aimed to explore nurses' perceptions regarding patient safety and errors in nursing practice.

This is a descriptive study with a qualitative approach. An online, open-ended questionnaire was used. A total of 47 nurses from various healthcare institutions in different regions of Brazil took part in the study. Qualitative content analysis was carried out.

Five themes were identified: (1) most common errors made during nursing practice; (2) feelings regarding errors that can occur during nursing practice; (3) measures taken to prevent errors during nursing practice; (4) actions taken after errors occurred during nursing practice, and (5) reasons for errors during nursing practice. The obtained results highlight that errors in medication administration, patient identification, patient mobilization, hand hygiene, and nursing documentation require special attention. Barriers caused by inadequate working conditions, poor communication, deficiencies in academic education, lack of in-service training and distractions were identified as reasons for errors in nursing practice.

Administrators of educational and healthcare institutions, along with nursing educators and managers, play essential roles in developing strategies to prevent errors in nursing practice.

Keywords: Near Miss, Nurse Administrators, Patient Safety, Quality of Health Care, Qualitative Research

ÖZ

Sağlık sektöründeki tüm gelişmelere rağmen, hastaların güvenliğini tehdit eden birçok advers olay hala meydana gelmektedir. Bu hatalar arasında hemşirelikle ilgili olanlar da bulunmaktadır. Bu çalışma, hemşirelerin hasta güvenliği ve hemşirelik uygulamasındaki hatalarla ilişkili algılarını belirlemeyi amaçlamaktadır.

Bu, nitel bir yaklaşıma sahip betimsel bir çalışmadır. Bir çevrimiçi, açık uçlu anket kullanılmıştır. Brezilya'nın farklı bölgelerindeki çeşitli sağlık kuruluşlarından toplam 47 hemşire çalışmaya katılmıştır. Nitel içerik analizi kullanılmıştır.

Beş tema belirlenmiştir: (1) hemşirelik uygulamalarında en yaygın yapılan hatalar; (2) hemşirelik uygulaması sırasında meydana gelebilecek hatalarla ilişkili duygular; (3) hemşirelik uygulamalarındaki hataları önlemek için alınan tedbirler; (4) hemşirelik uygulamalarındaki hataları takip eden eylemler ve (5) hemşirelik uygulamalarındaki hataların nedenleri. Elde edilen sonuçlar, ilaç uygulamaları, hasta tanılama, hasta mobilizasyonu, el hijyeni ve hemşirelik kayıtları ile ilgili hataların özel dikkat gerektirdiğini vurgulamaktadır. İş koşullarının olumsuzluğundan kaynaklanan engeller, yetersiz iletişim, akademik ve hizmet içi eğitimlerdeki eksiklikler ve dikkat dağıtıcılar hemşirelik uygulamalarındaki hataların nedenleri olarak tanımlanmıştır.

Eğitim ve sağlık kuruluşlarının yöneticileri, hemşirelik eğitmenleri ve yöneticileri, hemşirelik uygulamalarındaki hataları önlemek için stratejiler geliştirmekte önemli roller oynamaktadır.

Anahtar Kelimeler: Neredeyse Hata, Yönetici Hemşireler, Hasta Güvenliği, Sağlık Hizmeti Kalitesi, Nitel Araştırma

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INTRODUCTION

Long ago, the healthcare system has had significant concerns regarding patient safety.[1,2] According to the World Health Organization (WHO), patient safety involves minimizing the risk of preventable harm related to healthcare and the prevention and management of adverse events that may occur during the provision of healthcare services. The WHO states that patient safety is an essential element of healthcare quality, alongside effectiveness, efficiency, equity, and patient-centeredness[3].

Despite all the advances in the healthcare sector, many adverse events that threaten patient safety still occur. Errors made by healthcare professionals cause serious harm to the health and well-being of patients, sometimes resulting in disabilities or even death.[1,4,5] Among these errors are those involving nursing.[5] Therefore, nurses play a fundamental role in ensuring patient safety.[6,7]

Incorrect administration of medications; lack of attention or distraction during the provision of care, resulting in falls or accidents related to patient mobility and errors in surgical procedures; inadequate hygiene during care, increasing the risk of infections; lack of adequate communication with the healthcare team and the patient; non-compliance with patient safety guidelines; incorrect use of medical equipment; inadequate monitoring of the patient during and after care, and failure to provide clear and accurate information to patients about their condition and care process are some of the errors that can be committed by members of the nursing team.[2,8] Despite various errors that may involve nurses, most studies on this topic focus on medication errors such as incorrect medication administration, improper dilution of medications, and using the wrong route of administration.[8-10]

It is essential to highlight that the causes of nursing adverse events can be multifactorial and complex, and preventing these errors requires continuous efforts from the healthcare team and health facilities. Some of these causes include lack of technical knowledge or insufficient clinical skills, understaffing and workload burden, inadequate communication among healthcare team members, lack of proper training or guidance, distraction or fatigue, lack of process and procedure standardization, inadequate or poorly organized work environment, lack of appropriate equipment or materials, time or environmental pressures, and healthcare system failures, such as medication or equipment problems.[8,10]

Thus, effective communication, continuous education and training, adoption of protocols and guidelines, proper use of technologies, creating a safe environment, and ensuring good working conditions are among the strategies that should be implemented to prevent errors during the nursing practice.[9,11,12] It is also emphasized that reporting errors is crucial to avoid future occurrences.[13] However, forgetfulness, lack of time, or fear of receiving negative feedback from colleagues or institution administrators can impede the process of error reporting.[14,15] Especially in situations involving near misses, nurses seem to omit reporting. Near miss refers to a situation where an event with the potential to cause significant harm or injury occurs, but due to luck or immediate intervention, no harm or injury occurs.[16] These facts are very concerning as reporting adverse events is essential to prevent them in the future.[13]

It is important to emphasize that making mistakes is a stressful experience, and the lack of institutional support amplifies this distress. Therefore, strategies are needed not only to prevent adverse events but also to assist nurses who make errors, which will encourage the reporting of such events.[17,18] Based on the significance of the aforementioned, the need to address this topic has been recognized. This study aimed

to explore nurses' perceptions regarding patient safety and errors in nursing practice.

MATERIAL AND METHOD

Design and Sample

This is a descriptive study with a qualitative approach. Considering that qualitative approaches allow for the understanding of individual experiences, this type of study was chosen as the most appropriate to achieve the proposed objective.[19] The Consolidated Criteria for Reporting Qualitative Research (COREQ) checklist guided the study.[20]

A total of 47 nurses working in healthcare institutions from different regions of Brazil participated in the study. Participants were recruited through invitations containing information about the study, the Free and Informed Consent Term, and the data collection instrument. These invitations were sent electronically through individual messages on a professional networking platform and social media website to individuals who identified themselves as nurses in their profiles and were working in any of the 27 Brazilian federative units. Care was taken to invite nurses working in different regions of Brazil and in both public and private institutions to ensure maximum diversity among the participants. The study included nurses who had been working in Brazilian healthcare institutions for at least one year and who electronically signed the Free and Informed Consent Term, thereby agreeing to participate in the study.

Data Collection

The data collection process was conducted by a female professional holding the positions of Registered Nurse and Assistant Professor, possessing a Ph.D. in Nursing Management. While the researcher shares a cultural background similar to the participating nurses, there were no pre-existing connections with the participants, who were recruited through a professional networking website. The researcher underwent training in qualitative research methods and possessed prior experience in qualitative approaches.

In qualitative research, face-to-face interviews are traditionally preferred, yet in the current study, logistical challenges stemming from geographical and time zone constraints made their implementation impractical. Consequently, Google Forms emerged as a pragmatic alternative. Despite its limitations such as not capturing participants' gestures and facial expressions, this method facilitated the inclusion of a diverse sample, overcoming potential hesitations towards face-to-face interviews. The method provides advantages such as agility and convenience, enabling widespread dissemination of the research instrument and accessibility for participants from different regions. Additionally, it provides insights into the thought process of the interviewees.[21]

The first part of the research instrument included questions about the participants' personal characteristics, such as age, gender, marital status and level of education, among others, as well as their professional characteristics, such as years of experience in the profession, position and sector of work among others. The second part of the form consisted of seven open-ended questions related to patient safety and nursing errors, which were based on scientific literature:[4,5,7,12,14,15] (1) When it comes to errors committed in nursing practice, what are the examples that come to your mind first? (2) During your work routine, do you have a concrete fear of making or witnessing any errors that threaten patient safety? Could you justify your answer? (3) What measures do you take to avoid making errors during the practice of your profession? (4) In your opinion, what are the most common errors committed in nursing practice that threaten patient safety? (5) In case of any nursing error that threatens patient safety, what are

the procedures followed at the healthcare institution where you work? (6) If you made or witnessed a nursing error, would you report it? Could you justify your answer? (7) In your opinion, why do nursing errors continue to occur? At the end of the questionnaire, there is a space for participants to add any comments regarding the subject that were not covered in the previous questions. The data collection was conducted in Portuguese which is the participants' native language.

Before administering the questionnaire, pilot tests were conducted with the participation of five nurses. These participants were recruited through social media. As no changes were made to the data collection instrument after the pilot tests, the responses from these five participants were included in the final study results.

Data saturation was reached with the participation of 50 nurses in the study. However, two participants had partially completed questionnaires, and three participants were not currently employed in healthcare institutions, so they were excluded. Additionally, the responses of two more participants were included to assess whether they would yield new information. After analyzing the responses of these 47 nurses, it was evident that the inclusion of new participants did not significantly contribute to additional information. The sample was then considered sufficient, and data collection was concluded due to saturation. The data was collected between July 20 and August 31, 2023.

Data Analysis

Qualitative content analysis, as utilized in this study,[22] involved the repeated reading of data from 47 participants. The identification and manual coding of main ideas and similar information were carried out. Themes and sub-themes have undergone multiple readings and reflections based on the study's objectives. Throughout the data analysis process, the researcher familiarized herself with the data, leading to the emergence of initial codes. Subsequently, the identification of sub-themes and themes took place, followed by their review. A refined and continuous analysis was conducted to characterize the specificities of each theme, resulting in the generation of clear definitions and names for each subtheme and theme. Afterward, the final analysis was performed, and the report was produced. Reflexivity and fidelity of narratives were maintained at all steps of the analysis.

Rigor

To ensure reliability in this qualitative research study, various approaches were employed, including credibility, dependability, confirmability and transferability. The researcher used intentional sampling, aiming to include a diverse range of participants. Detailed and comprehensive descriptions of the research context and data collection procedures were provided, while the data collection tool was rigorously pilot-tested.

A specific routine for data collection was implemented, as participants wrote their responses themselves. The data analysis procedures were outlined clearly and in detail. The researcher engaged extensively with the data. The researcher ensured direct citations from participants, and the coding, subthemes, and themes were meticulously evaluated multiple times.

Moreover, special attention was given to accurately describing the participants' opinions and expressions. This focus on capturing and representing participants' perspectives contributed to the overall reliability of the study. By adopting these rigorous approaches and practices, the study aimed to enhance the reliability of its findings and conclusions.

Ethical Considerations

This study was reviewed and approved by the Research Ethics Committee of the Anna Nery School of Nursing – Sao Francisco de Assis School Hospital of the Federal University of Rio de Janeiro (approval date: July 11, 2023; decision number: 6.175.577). The study's aims and methods were communicated to the participants, and their free and informed consent was obtained

before their involvement. Throughout the study, the researcher ensured the maintenance of participants' anonymity, safeguarding their identities and personal information.

Limitations

Although the study provided valuable insights into patient safety and errors that can occur during nursing practice, it also had some limitations. Data collection relied on self-report questionnaires, which limited the depth of exploration of the topic. Another limitation that should be mentioned is that only one researcher conducted the data analysis.

RESULTS AND DISCUSSION

Thirty-eight (80.9%) of the participating nurses are female, 63.7% (n = 30) of them are between 26 and 35 years old, 42.6% (n = 20) are single, 85.1% (n = 40) are specialist nurses, 55.3% (n = 26) work in public institutions; 29.8% (n = 14) work in wards, and 29.8% (n = 14) work in emergency rooms; 53.2% (n = 25) of the participants have 1-5 years of experience (Table 1). The Federal District and all 26 Brazilian states were represented, with participant distribution ranging from 1-5 per federative unit.

Data were organized into five themes: (1) most common errors made during nursing practice; (2) feelings regarding errors that can occur during nursing practice; (3) measures taken to prevent errors during nursing practice; (4) actions taken after errors occurred during nursing practice, and (5) reasons for errors during nursing practice. Additionally, 17 subthemes were identified. Themes and subthemes are presented in Table 2.

Tablo 1. Characteristics of Participants (N=47)

Variable		n	%
Gender	Female	38	80.9
	Male	9	19.1
Age	18-25	2	4.3
	26-35	30	63.7
	36-45	10	21.3
	46-55	3	6.4
	56-65	2	4.3
Marital Status	Divorced	6	12.8
	Married	18	38.3
	Single	20	42.6
	Stable Union	3	6.4
Educational Level	Bachelor's Degree	3	6.4
	Master's Degree	4	8.5
	Postgraduate (Specialization)	40	85.1
Type of Institution	Private	14	29.8
	Public	26	55.3
	Public and Private*	7	14.9
Unity of Work	Continuing Education Department	1	2.1
	Emergency Room	14	29.8
	Hospital Infection Control Center	3	6.4
	Imaging Department	1	2.1
	Intensive Care Unit	7	14.9
	Operation Room	2	4.3
	Outpatient	1	2.1
	Primary Health Care	4	8.5
	Ward	14	29.8

Table 1. (Continued)			
Work Experience	1-5 years	25	53.2
	6-10 years	12	25.5
	11-15 years	3	6.4
	More than 15 years	7	14.9

*Some participants stated that they have more than one job.

Table 2. Themes and Subthemes

Themes	Subthemes
Most common errors made during nursing practice	-Medication administration errors -Patient identification errors -Hand hygiene errors -Nursing record errors -Patient movement/positioning errors
Feelings regarding errors that can occur during nursing practice	-Fear of not knowing how to react to the error -Fear of causing irreversible harm to the patient -Acceptance of the inevitability of errors
Measures taken to prevent errors during nursing practice	-Following protocols and performing double-checks -Active communication and continuing education
Actions taken after errors occurred during nursing practice	-Reversing the error -Reporting the error -The culture of punishment
Reasons for errors during nursing practice	-Work overload -Lack of knowledge/experience -Communication failure -Distraction/lack of attention

Theme 1: Most Common Errors Made During Nursing Practice

The first theme encompasses the reflections of nurses regarding the most common errors committed by members of the nursing team. A total of 38 participants mentioned errors related to medication administration as the most frequent in nursing routines. Failures in patient identification and patient movement/positioning, errors related to hand hygiene, and nursing record errors were also discussed by participating nurses. This theme is presented in five subthemes: (1) medication administration errors; (2) patient identification errors; (3) hand hygiene errors; (4) nursing record errors, and (5) patient movement/positioning errors.

Medication administration errors

Nurses who participated in the current study reported various errors related to medication administration that can occur during nurses' daily routines. Medication mix-ups, incorrect dilution, and errors during drug application were mentioned:

"I have witnessed errors in the route of administration. In addition, administration errors such as outside the upper outer quadrant (during intramuscular medication application in the dorso-gluteal region)" (Nurse 14).

"The most common errors are medication errors in general (prescription, scheduling, and administration process)" (Nurse 17).

Patient identification errors

Errors committed during patient identification were also emphasized by the nurses who participated in the research. According to them, this type of error occurs because protocols are not followed correctly,

leading to procedures being performed on the wrong patient:

"I remember failures like not cross-checking the patient's name on the wristband with the label" (Nurse 8).

"There is a lack of secure patient identification" (Nurse 23).

The fact that errors related to medication administration and patient identification were so frequently mentioned by the participants is highly significant, as most protocols and educational programs developed to prevent errors in nursing practice are primarily focused on avoiding errors related to patient identification and medication.[23,24] This predominance of medication-related errors is observed in the scientific literature, as many studies addressing failures during nursing practice discuss mistakes in this process.[9,14,25] A study conducted with nurses in Jordan confirms the statements made by the participants in the present study, indicating that many medication errors continue to occur in nursing.[25] Similarly, a previous study conducted with Brazilian nursing professionals pointed out various errors related to medication administration, such as non-compliance with biosafety standards, conversations during medication preparation, preparation of medications for different patients and times simultaneously, and incorrect dilution.[9] In another study, errors related to dose and route of administration were the most common medication errors cited by Iranian nurses.[14] It is important to highlight that many medication errors occur during the administration process due to patient identification failures.[23]

It is indeed puzzling that in a landscape dominated by technological advances, including those that facilitate patient identification,[24] such errors still occur. These errors underscore the ongoing need to improve nursing practices.

Hand hygiene errors

Errors related to healthcare-associated infections were also addressed by the participating nurses, who emphasized the importance of proper handwashing as a crucial measure to prevent cross-infections in healthcare institutions. The following quotes report failures in adhering to established protocols to ensure the effectiveness of hygiene practices:

"The lack of hand hygiene is an error that occurs in nursing" (Nurse 35).

"Errors in techniques for preventing healthcare-associated infections, such as hand hygiene, are common" (Nurse 43).

Hand hygiene is a critical component of infection prevention and control, playing an essential role in safeguarding both patients and healthcare providers. Hand hygiene is a primary measure to prevent healthcare-associated infections.[26] It is concerning that even after the COVID-19 pandemic when the importance of hand hygiene was widely emphasized, such failures continue to occur within healthcare institutions. The results of a study conducted to assess the performance and effectiveness of handwashing among nursing students confirm the seriousness of the situation, as issues such as incomplete hand hygiene were identified during the process.[27] Promoting understanding among nurses about the essential nature of thorough hand hygiene and instilling in them the perception that lapses in this procedure signify negligence are inherent challenges within the healthcare domain.

Nursing record errors

Participants reported that nurses sometimes fail to make accurate records of their interventions. The following quotes highlight the gaps in written communication within nursing practice:

"Incomplete nursing progress notes and not documenting in the medical records are common errors in nursing" (Nurse 24).

"A lack of documentation of procedures and complications frequently occurs" (Nurse 30).

In the practice of their profession, nurses perform a wide range of duties, conducting various procedures for the benefit of patients. Each action taken requires precise and thorough documentation in patient records

and relevant documents. Although the importance of this practice is consistently emphasized throughout their academic education and in-service training, it is regrettable to note the persistence of gaps in terms of inaccurate, incomplete, or, in some cases, absent nursing documentation.[28] These shortcomings not only pose potential risks to patient safety but also leave nurses vulnerable to potential legal implications.

In a previous study conducted in Brazil, nursing professionals reported being aware of the need to document all procedures in detail to ensure continuity of care and legal support. However, they also mentioned facing difficulties in this process, particularly due to a lack of time.[29] Reinforcing nurses' awareness of the imperative nature of proper documentation is essential, as the absence of records constitutes a significant nursing error that undermines the quality of care and the integrity of the profession.

Patient movement/positioning errors

Participants also reported that failures during patient mobilization, or even during patient positioning in bed, are observed during the practice of the profession:

"Errors in patient positioning can occur" (Nurse 1).

"Falls and incorrect patient handling, especially in trauma cases, are things that come to mind when it comes to nursing errors" (Nurse 37).

The transportation of critically ill patients requires care, attention, and knowledge to ensure the patients' integrity is preserved and the situation is not aggravated during the process. A recent literature review emphasized that healthcare professionals involved in patient transport should be adequately qualified and participate in frequent update programs.[30] In light of this, investing in the qualification and continuous education of healthcare professionals involved in the transportation of critically ill patients is imperative to ensure the safety and quality of this process.

Theme 2: Feelings Regarding Errors that Can Occur During Nursing Practice

Participants reported their feelings regarding errors in nursing. A total of 33 participants stated that they have a constant fear of making or witnessing errors during their daily work routine. Three subthemes are part of this theme: (1) fear of not knowing how to react to the error, (2) fear of causing irreversible harm to the patient, and (3) acceptance of the inevitability of errors.

Fear of not knowing how to react to the error

Nurses stated that they feel insecure when faced with errors that occur during nursing practice. One of the participants' major concerns when they commit or witness errors during their professional practice is not knowing how to act in such situations. The following quote reflects one participant's reflection on the topic:

"I'm afraid of witnessing an error and not knowing how to act" (Nurse 2).

Fear of causing irreversible harm to the patient

The fear of making mistakes and being responsible for sequelae or even the death of patients was also emphasized by the participants. The quotes below underscore the seriousness of errors involving the nursing team:

"I'm afraid of making mistakes because I know our failures can bring irreversible consequences to patients" (Nurse 9).

"I'm afraid of making mistakes because it can lead to the patient's death or leave them with some sequela" (Nurse 18).

Acceptance of the inevitability of errors

Participants also stated that accepting the possibility of making mistakes is a common feeling in nursing since, as human beings, members of the nursing team can make mistakes during practice. The following quote reflects on the inevitability of errors in the healthcare field:

"I'm not afraid of making or witnessing errors at all; errors are outcomes of systemic processes. All organizations are subject to errors; working in the Hospital Infection Control Center means dealing with 'errors' all the time" (Nurse 43).

It was identified that participants are afraid of not knowing how to act when faced with errors, and they particularly fear events that may cause irreversible harm to patients. Here, it is important to discuss the ethical principles that guide nursing practice. Two of the four fundamental ethical principles are related to beneficence and nonmaleficence, which means to do good and do no harm.[31] Therefore, protocols should be followed properly both to prevent errors and to ensure that nurses know how to act after errors occur during practice.[32-34]

Nurses have a strong moral and professional commitment to the integrity and well-being of patients, which means that any error made in patient care can have a significant impact on the emotional and psychological well-being of these healthcare professionals.[17,18] Nurses should be prepared to respond to errors, knowing the protocols and ethical principles that must be followed, and receiving institutional support when they make errors during their professional practice.[18,34] It is essential to highlight that errors can happen and, consequently, should be seen as opportunities for learning and improvement to avoid the repetition of similar failures.[18]

Theme 3: Measures Taken to Prevent Errors during Nursing Practice

The third theme addresses the measures taken to prevent errors during nursing practice. The theme is organized into two subthemes: (1) following protocols and performing double-checks and (2) active communication and continuing education.

Following protocols and performing double-checks

Participating nurses stated that one important measure to prevent errors during their routines is to follow protocols, thus performing double-checks before all procedures. The following quotes emphasize the importance of being vigilant to avoid nursing errors:

"I perform double-checks for everything I do. I follow the protocols of the institution I belong to. I do not take actions that I am not confident about and that could harm the patient. I constantly seek scientific evidence to gain more knowledge to address insecurities and provide excellent care" (Nurse 6).

"Double-checking, the 10 rights, and always before administering (medications), I ask if there are any allergies to medication" (Nurse 12).

"I pay attention during work, and I mainly base my actions on the code of ethics and institutional protocols" (Nurse 31).

Active communication and continuing education

Participants emphasized the need to stay updated and share knowledge with other members of the nursing team through efficient and effective communication to prevent errors during the practice of their profession. The quotes below reflect the importance of in-service training and active communication among nurses to ensure patient safety:

"We work with constant team updates and provide a lot of feedback at the end of the shift" (Nurse 3).

"I provide guidance to the nursing team before the start of the shift and throughout the shift, and I keep myself updated regarding new care routines" (Nurse 5).

For the nursing team to be guided by established protocols, it is necessary for knowledge to be shared from the professional's academic education and also maintained through continuous education in healthcare institutions. Additionally, nursing managers and hospital administrators need to manage procedures and ensure that protocols are being properly followed.[32-34] A literature review analyzing studies on errors in nursing emphasized that improving working conditions, continuous education, and a

culture of safety are the main sources for preventing such errors.[8] These findings are in line with the results of the present study.

Active communication was also highlighted by participants as one of the means to prevent nursing errors. Several studies conducted on the topic have identified the importance of effective communication as a factor that prevents patient safety-threatening errors.[35,36] Therefore, it is understood that active communication, adherence to protocols, and the exchange of knowledge among nursing team members are important strategies to prevent errors during nursing practice.

Theme 4: Actions Taken after Errors Occurred during Nursing Practice

Participants pointed out measures taken after errors are committed in nursing practice. According to them, both immediate and long-term actions should be taken. Therefore, the mentioned actions are aimed at both reducing harm and preventing future errors. Nurses also emphasized the existence of an organizational culture that blames and punishes those who commit errors. The theme is presented in three subthemes: (1) reversing the error, (2) reporting the error, and (3) the culture of punishment.

Reversing the error

According to the nurses who participated in this study, the first step to be taken when an error occurs during their work routine is to take actions that reverse or reduce the negative effects of the error, such as interrupting the action and communicating with the physician responsible for the patient. The following quotes reflect on this topic:

"First, we seek to reverse the error made, so that no further harm is done to the patient, and to reduce the error. Afterward, a procedure is initiated to investigate the causes of the error" (Nurse 3).

"We suspend what was being done, check the vital signs depending on the error, and monitor the patient. Additionally, we immediately inform the physician" (Nurse 17).

One of the participants emphasized that in addition to providing care to the patient, there should also be a humanized approach to the nurse who made the error. The quote below identifies the importance of supporting the employee who makes mistakes during the practice of the profession:

"Assistance should be provided to the patient, and support for the professional should be maintained because they also become scared and frustrated as the error is not intentional" (Nurse 37).

Reporting the error

Nurses reported that it is crucial to report the error committed or witnessed, both to discover the causes that led to the error and to prevent the same error from happening again. The following statements emphasize that notification is not a process aimed at punishing the professional who commits the error, but rather a necessary act to generate improvements in care delivery:

"In the face of an error, it is necessary to communicate with the immediate supervisor and fulfill an incident report, which will trigger the risk management process for the event to be analyzed and process improvements identified" (Nurse 1).

"A meeting is held with the team to review the use of protocols and realign their implementation, and notification is sent to the patient safety unit of the ward. Notification helps identify team weaknesses and assists in developing educational measures" (Nurse 10).

The culture of punishment

Nurses emphasized that in many institutions, a culture of punishment still prevails when it comes to errors committed during the practice of the profession. In the following sentences, nurses report that after nursing errors occur, the attitudes taken by healthcare institution administrators may focus more on warnings and punishments, with less concern for investigating the root causes of the errors to take effective measures to prevent them:

"In the case of errors, a warning may occur, potentially leading to the dismissal of the employee who committed the error" (Nurse 13).

"The culture of punishment is very strong, and when errors occur, the focus is on the individual rather than the work process" (Nurse 27).

One of the main strategies used to prevent errors during nursing practice is the notification of these events because this act allows the error to be evaluated, and its causes to be discovered, thereby leading to the prevention of similar errors.[32,34] In other words, based on these findings, protocols are developed or updated. However, the scientific literature points to failures in the notification of errors committed during nursing practice. A study conducted with nurses in Jordan indicated that many nurses do not report medication errors as they should.[25]

Hospital administrators and nursing managers should encourage error reporting and not promote a culture of punishment within the organization.[32-34] In a study conducted in Turkey, the majority of participating nurses reported notifying errors they had committed.[37] However, in another study, Iranian nurses stated that they did not report such events due to forgetfulness, fear of their colleagues' reactions, and concern that the incident might negatively influence the evaluation of their performances.[14] Another research study with nurses in Iran yielded similar results, stating that barriers to reporting errors in hospitals are diverse and include a lack of knowledge about errors and notification systems, as well as negative feedback and adverse reactions from hospital administrators and colleagues.[15]

Nurses who make errors during their professional practice may feel frustrated, guilty, and demotivated, so they need institutional support to overcome the process and learn from their mistakes.[18] It is important to emphasize that a culture of blame or punishment can prevent healthcare professionals from reporting committed errors, which poses another threat to patient safety.[38] Such attitudes should be replaced by the promotion of a culture of learning and continuous improvement, where healthcare professionals feel encouraged and supported to report errors openly and transparently. Additionally, nursing managers and hospital administrators play fundamental roles in this process, managing procedures and ensuring that protocols are being properly followed and that professionals will not be punished when reporting errors.[32-34]

Theme 5: Reasons for Errors during Nursing Practice

The fifth theme addresses the possible reasons for errors committed during nursing practice. The theme has been organized into four subthemes: (1) work overload; (2) lack of knowledge/experience; (3) communication failure; and (4) distraction/lack of attention.

Work overload

Work overload was mentioned by 27 participants as one of the main causes of errors in nursing. The following quotes address the impacts of inadequate working conditions for nurses on the occurrence of errors during the performance of their duties.

"Errors occur due to poor management of the tasks related to the nursing team, creating an unnecessary rush to handle tasks that could be distributed to other members of the multidisciplinary team, but in practice, it is left to the nursing team" (Nurse 10).

"Excessive workload, double shifts, mental and physical fatigue lead to errors" (Nurse 45).

Lack of knowledge/experience

According to the participating nurses, errors made by nurses during their professional practice can be associated with a lack of experience, a deficient professional education, or a lack of updates through in-service training. The following quotes reflect on the topic:

"In some cases (errors occur due to) inexperienced employees or those with little

knowledge or due to lack of training" (Nurse 17).

"Errors occur due to little (theoretical/practical) knowledge on the part of many professionals. The lack of knowledge is related to the professional's foundational education. Many colleges (...) are of poor quality. The Regional Nursing Council doesn't seem to be concerned about it. Many nursing programs are open, including distance education, which is absurd. Many professionals graduate without any theoretical or practical foundation" (Nurse 31).

"The lack of participatory continuing education in the unit is one of the causes of errors" (Nurse 44).

Communication failure

Participants emphasized the importance of smooth interaction and effective transfer of information among healthcare team members, especially during shift handovers, as essential components for delivering quality care. The perspective of the participating nurses regarding the association between communication failures and the occurrence of errors in nursing is reflected in the following quotes:

"The cause of many errors is poor communication during shift handovers" (Nurse 33).

"Errors occur due to a lack of communication" (Nurse 38).

Distraction/lack of attention

Nurses stated that distractions and a lack of attention, which can even be considered a lack of commitment to the profession, can trigger errors during the nursing routine. It was also emphasized that the improper use of mobile phones by nurses during working hours can pose a risk to patient safety. The quotes below reflect the opinions of the participants on the subject:

"Excessive use of cell phones. Professionals prioritize their cell phones over patients. They do everything in a hurry, rushing so they can get back to their phones. I believe it's worth highlighting the excessive use of cell phones during working hours. Even with prohibitions (...), it has become an addiction, which reduces the quality of care" (Nurse 3).

"Errors happen due to lack of attention and even lack of commitment" (Nurse 34).

Participants stated that a lack of knowledge and inexperience can lead nurses to make errors during their practice, highlighting the importance of nursing education and management to prevent errors. Additionally, distractions and lack of attention, ineffective communication, and poor working conditions for nurses, such as excessive workload, were identified by nurses as triggers for nursing errors. Similar results were reported by Forte et al.[8] in a literature review that analyzed errors in nursing. According to their results, inadequate working conditions, distractions, interruptions, communication failures, and lack of experience are among the most frequent reasons for errors in the field of nursing. Similarly, a study conducted in three Japanese hospitals identified that out of 637 medication administration-related error cases, 163 cases were related to nurses' excessive workload.[39] Another study conducted with Japanese nurses emphasized the need to encourage effective information exchange among professionals to prevent nursing errors.[12] It is important to highlight that training has been shown to reduce errors and increase nurses' problem-solving abilities. Therefore, educational workshops focused on patient safety should be developed to enhance nursing practice.[6]

An additional aspect of great importance, raised by the nurses, concerns distractions during professional practice, which can result in errors. A similar result was identified in a study conducted in Jordan, which highlighted distraction as one of the main causes of errors in medication administration by nurses.[25] One of the predominant sources of distraction appears to be the use of mobile phones during working hours. In a study conducted in the Philippines, nurses acknowledged that the use of mobile phones

during work hours could pose a threat to patient safety, as these devices are used for games, social media, and personal calls during working hours, diverting the attention of healthcare professionals.[30] Nurses need to stay focused on their work to ensure the safety and quality of care.

The improvement of nursing practice primarily occurs through the educational process, encompassing both academic training provided by nursing institutions and on-site training in healthcare institutions. This improvement is also enriched through continuous research and ongoing updates in the field. Commitment to excellence in nursing involves a comprehensive approach, including proactive management and the implementation of audits. Through effective management, it is possible to ensure strict adherence to established protocols, thereby ensuring uninterrupted patient safety. It is crucial to recognize that the eradication of mistakes in nursing practice is intrinsically linked to investment in the educational process. This holistic approach, which embraces formal education, practical learning, and scientific research, results in highly skilled nurses and a healthcare environment characterized by quality, safety, and continuous innovation.

CONCLUSION AND SUGGESTIONS

The study sought to explore nurses' perceptions regarding patient safety and errors in nursing practice. The obtained results highlight that errors in medication administration, patient identification, patient mobilization, hand hygiene, and nursing documentation require special attention. The prevalence of these errors, even in the context of technological advances, underscores the need for more comprehensive and effective approaches to mitigate these failures.

Barriers caused by inadequate working conditions, poor communication, lack of in-service training and distractions often stemming from excessive cellphone use during work were identified as reasons for errors during nursing practice. Improving the work environment and promoting practices that minimize distractions and enhance communication among healthcare professionals can significantly contribute to reducing error occurrence. However, perhaps the most concerning factor is the emphasis placed on deficiencies in academic education, which does not enable nursing students to receive proper instruction. This indicates that educational institutions need better oversight. Additionally, active communication, knowledge sharing, continuous education, and a system that facilitates error reporting were identified as essential pillars to prevent errors and enhance the quality of care.

Many of the errors made in nursing are primary and should be easily avoidable. Progress in nursing practice should be seen as a dynamic and multifaceted process encompassing academic education, practical training, continuous research, and the implementation of robust protocols in health facilities. Furthermore, it is imperative to recognize the importance of an organizational culture that does not punish errors but views them as valuable opportunities for learning and improvement. Administrators of educational and healthcare institutions, along with nursing educators and managers, play essential roles in developing strategies aimed at empowering nursing students and nurses to prevent errors, rather than promoting an environment of intimidation.

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