

Permanent education for quality and patient safety in an accredited hospital

Educação permanente para qualidade e segurança do paciente em hospital acreditado

Educación permanente para calidad y seguridad del paciente en hospital acreditado

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Abstract

Objective: To understand the challenges faced in terms of permanent education in health, for achieving quality improvements and patient safety at a public hospital undergoing hospital accreditation.

Methods: This was a descriptive, cross-sectional study with a qualitative approach. Semi-structured interviews were conducted with 22 professionals, lasting an average of 22 minutes. The interviews were subsequently analyzed and interpreted using Bardin's thematic content analysis. The software Iramuteq was used to analyze the textual *corpus*, and BioEstat 5.3 was used to analyze the profile of the participants. The data collection took place in June 2022, following approval by the Research Ethics Committees.

Results: The descending hierarchical classification analysis, generated by Iramuteq, was applied, resulting in three categories: Challenges of Permanent Education through the Continuous Improvement Process, Permanent Education for the Promotion of Quality and Patient Safety in the Context of Hospital Accreditation, and Educational Strategies for Improving Quality and Patient Safety.

Conclusion: Challenges inherent to the actions of permanent education in health were identified, such as resistance to cultural change, adherence to activities, high turnover of professionals, and difficulty in releasing the nursing team to participate in activities, due to work demand.

Resumo

Objetivo: Compreender os desafios enfrentados pela educação permanente para o alcance da melhoria da qualidade e da segurança do paciente em um hospital público submetido à acreditação hospitalar.

Métodos: Estudo descritivo, transversal e com abordagem qualitativa. Realizaram-se entrevistas semiestruturadas com 22 profissionais, durando, em média, 22 minutos, as quais posteriormente foram analisadas e interpretadas por meio da análise de conteúdo temática de Bardin. Adotaram-se os *softwares* Iramuteq para a análise de *corpus* textual, e o BioEstat 5.3, para análise do perfil dos participantes. A coleta de dados ocorreu em junho de 2022, após aprovação nos Comitês de Ética em Pesquisa.

Resultados: Aplicou-se a análise de classificação hierárquica descendente, gerada pelo Iramuteq. Obtiveram-se três categorias: Desafios da Educação Permanente mediante o Processo de Melhoria Contínua; Educação Permanente para a Promoção da Qualidade e da Segurança do Paciente no Contexto da Acreditação Hospitalar; e Estratégias Educativas para a Melhoria da Qualidade e da Segurança do Paciente.

Conclusão: Identificaram-se desafios inerentes às ações de educação permanente em saúde, tais como resistência à mudança de cultura, adesão às atividades, alta rotatividade de profissionais e dificuldade para liberação da equipe de enfermagem para participar das atividades relacionadas à demanda de trabalho.

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Conflicts of interest: none to declare.

Resumen

Objetivo: Comprender los desafíos enfrentados por la educación permanente para lograr mejorar la calidad y la seguridad del paciente en un hospital público sometido a acreditación hospitalaria.

Métodos: Estudio descriptivo, transversal y con enfoque cualitativo. Se realizaron entrevistas semiestructuradas a 22 profesionales, con duración promedio de 22 minutos, que luego se analizaron e interpretaron mediante el análisis de contenido temático de Bardin. Se utilizaron los *softwares* Iramuteq para el análisis de *corpus* textual y BioEstat 5.3 para el análisis del perfil de los participantes. La recopilación de datos se llevó a cabo en junio de 2022, después de la aprobación de los Comités de Ética en Investigación.

Resultados: Se aplicó el análisis de clasificación jerárquica descendente, generado por Iramuteq. Se obtuvieron tres categorías: Desafíos de la educación permanente mediante el proceso de mejora continua, Educación permanente para la promoción de la calidad y de la seguridad del paciente en el contexto de la acreditación hospitalaria, y Estrategias educativas para la mejora de la calidad y la seguridad del paciente.

Conclusión: Se identificaron desafíos inherentes a las acciones de educación permanente en salud, tales como resistencia a cambios de cultura, adherencia a las actividades, alta rotación de profesionales y dificultad de autorizar al equipo de enfermería para participar en las actividades relacionadas con la demanda de trabajo.

Introduction

Permanent education in health is characterized as learning at work, in which learning and teaching are incorporated into the daily lives of organizations and work, adapted to local needs and realities. It is based on meaningful learning and the possibility of transformation, and generates reflection on the work process, self-management, institutional change, and transformation of practices in service.⁽¹⁻³⁾

Permanent education in health is a strategy widely adopted by the National Patient Safety Program [*Programa Nacional de Segurança do Paciente*—PNSP] since 2013, to stimulate across the multidisciplinary team the acquisition of knowledge, skills, and attitudes that contribute to risk management, quality assurance, and safety in healthcare processes.⁽⁴⁻⁶⁾

Hospital accreditation reaffirms the importance of delivering care with excellence. This requires the implementation of various management strategies to overcome the primary difficulties, such as the acceptance or resistance of teams to the changes instituted.^(7,8)

Permanent education in health is an essential investment by the nursing team for obtaining accreditation through the acquisition of scientific capital, which gives the team greater technical and scientific skills, enabling them to provide comprehensive care for patients and their families, with direct impacts on the quality of care.⁽⁹⁻¹¹⁾

There persist various obstacles when it comes to implementing permanent education in healthcare institutions. Therefore, effective educational

and managerial strategies need to be developed, to facilitate the execution of these activities.⁽¹²⁾ It is important to be aware of the challenges faced by permanent education in health, in the search for improvements in quality and patient safety in a public hospital that has undergone the hospital accreditation process. Understanding this will allow the main demands and obstacles faced by this service to be identified and educational strategies to be developed by the hospital management, which in turn, will result in a process of continual quality improvement.

This study aims to understand the challenges faced by permanent education in order to achieve improvements in quality and patient safety in a public hospital undergoing hospital accreditation.

Methods

This is a descriptive, cross-sectional study with a qualitative approach. The research met the Consolidated Criteria for Reporting Qualitative Research⁽¹³⁾, and was carried out at the Fundação Santa Casa de Misericórdia do Pará (FSCMPA), in Belém (PA), a leading public hospital specializing in maternal and child care. The service is provided entirely by the Brazilian national healthcare system—the Unified Health System [*Sistema Único de Saúde*—SUS]. The institution has 2772 employees and 513 beds, 483 of which are in operation. Since 2022, it has achieved the maximum level of accreditation, according to the evaluation standards of the National Accreditation Organization

(ONA), and has been Accredited with Excellence (ONA 03).^(14,15)

The study population consisted of 22 professionals, including 10 nursing managers, 1 psychologist and 2 pedagogues working in the Personnel Development Office, 5 nurses (3 working during the morning, 1 during the afternoon, and 1 during the night shift); 2 nurses from the Quality and Safety Management Advisory, 1 manager of the same advisory, and 1 technical-assistance director. We sought to include a representative sample of management and care professionals who participated in the accreditation process of the hospital.

The inclusion criteria were: higher education professionals working in permanent education services; nursing coordinators or managers; nurses, manager, coordinator or supervisor of the Quality and Safety Management Advisory; care nurses and the care director of the ONA 03 public hospital in Metropolitan Region I, in the state of Pará. The exclusion criteria were: professionals not currently engaged in professional activities (such as those on leave, or on vacation) during the data collection period.

Data were collected via a semi-structured interview. The participants had access to the interview script in advance, which composed of seven central questions that met the research objective and the following guiding question: “What are the challenges faced by permanent education to achieve quality improvement and patient safety in an accredited public hospital in the state of Pará?”

The data collection took place in the month of June, 2022. The General Nursing Management provided a list with the names of the active managers. The managers participating in the survey provided the list of active care nurses.

The interviews were conducted individually, scheduled in advance over the telephone for a date and location of the participant's choosing. All the participants signed an Informed Consent Form and Voice Recording Authorization Form, were chosen based on convenience, and none refused to participate. An alphanumeric code was adopted, using the initial P followed by sequential numbers.

The interviews were audio-recorded on an electronic device (cell phone), and lasted around 22

minutes each. No pilot test was carried out. The interviews were conducted until theoretical data saturation was reached, i.e., when no new significant data for the studied phenomenon was found.⁽¹⁶⁾

The interviews were conducted by a single researcher, a Master's student in Nursing, working in Health Services Management at a leading hospital in Urgency and Emergency in the Metropolitan region of Belém. The student was not an employee of FSCMPA, and had no prior relationship with the interviewees.

The interviewees' responses were analyzed using Laurence Bardin's thematic content analysis, with the aid of the *Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires* (Iramuteq) software, version R 3.1.2. The content analysis proposed in this study followed three main steps: pre-analysis; exploration of the material; and treatment of the results, inference, and interpretation.⁽¹⁷⁾

In the pre-analysis, the interviewees' statements were transcribed in full in Microsoft Word. Each interviewee received a transcript of their interview, which was digitized for analysis. Then, a single textual *corpus* was structured to carry out the second stage of analysis, which was the exploration of the material using the Iramuteq software. For this, the descending hierarchical classification was adopted.

During the stage of treatment of the results, inference and interpretation, the information found in the analysis was highlighted, through the interpretation of the theoretical dimensions observed when the reading of the material.⁽¹⁷⁾ Finally, the data were classified and grouped into thematic categories. To analyze the participants' sociodemographic profile, descriptive statistics were applied using the software program BioEstat 5.3. The results of this research will be presented as feedback to the institution and participating professionals, at a scientific event of the FSCMPA.

This study was conducted in accordance with Resolution 466 of 2012 of the National Health Council, which regulates research with human beings and guides its development, and Resolution 510 of 2016, which guarantees the participant's right to be informed about the research.

The research was approved in June, 2022 by the Research Ethics Committees of the Instituto de Ciências da Saúde da Universidade Federal do Pará (UFPA) and the Fundação Santa Casa de Misericórdia do Pará, obtaining approval under clauses 5.396.289 and 5.461.508, respectively.

Results

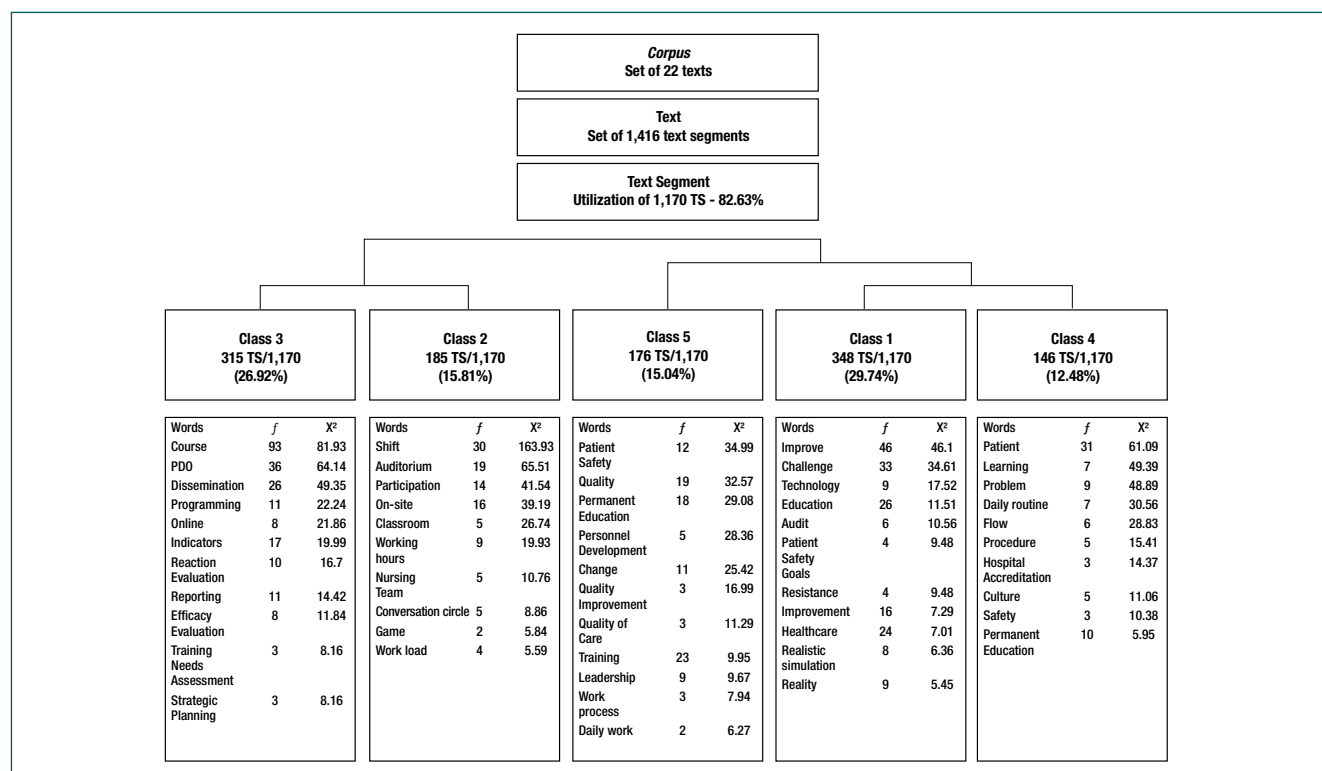
It was observed that the majority of the respondents were female (90.9%). Regarding professional background, 18 (81.8%) were nurses. Among the participants, 59.1% held second jobs. The descriptive statistical analysis indicated that the average age of the participants was 43.7 years, the average length of service in the profession was 18.1 years, and the average time working at the institution was 11.4 years. Data processing using the Iramuteq software generated a text *corpus* consisting of 22 texts, separated into 1,416 text segments, of which 1,170 text segments (82.63%) were used. As an analysis parameter, chi-square ≥ 5 was used as a cut-off point,

and $p \leq 0.01$ was used for statistical significance, generating the dendrogram shown in Figure 1.

Based on the descending hierarchical classification dendrogram, the content was divided into five classes. Through the subsequent analysis of the five classes, three categories emerged. Class 1 gave rise to category I; Challenges of Permanent Education through the Continuous Improvement Process. Due to the similarity between the themes addressed, some classes were combined to form a single category, as with Classes 4 and 5, which gave rise to Category II; Permanent Education for the Promotion of Quality and Patient Safety in the Context of Hospital Accreditation. Classes 3 and 2 were also combined, giving rise to Category III; Educational Strategies for Quality Improvement and Patient Safety.

Challenges of Permanent Education through the Continuous Improvement Process

The managers mentioned that one of the main challenges faced by permanent education in health was educating adults. A greater effort had to be made to raise awareness among these professionals, encourag-



ST: text segment, f: frequency, CEDP: People Development Coordination

Figure 1. Dendrogram generated by Iramuteq

ing them to participate in educational activities and reducing resistance to the culture of quality and safety.

[...] andragogy... is not easy [...] so this is one of the main challenges [...] to involve and actually encourage an adult to follow the line of quality and safety [...]. (P1)

[...] sometimes, the employee doesn't want to [...] he doesn't want to go through this process [...] and sometimes, they are there in that comfort zone and don't want to change [...]. (P22)

The difficulty of taking professionals out of care-based work to take part in permanent education arises due to the heavy work demands and staff shortages.

[...] it is very challenging to continuously educate professionals because we do not have a contingent that can replace their teams, to release them [...]. (P22)

FSCMPA had both permanent employees (approved in public contest to work at the institution) and temporary hired staff. Temporary employment contracts led to high turnover, which directly impacted the continuous improvement process, requiring constant training of new staff.

[...] this is something related to our culture here at Santa Casa; the positions here are political and then we have this challenge of training staff again, and if it changes... training new staff again... [...]. (P3)

[...] we have employees who are not permanent [...] those who work on a contract [...] they would have to go through a period of permanent education [...] they need to be trained and undergo on-site training [...]. (P17)

Permanent education for the promotion of quality and patient safety in the context of hospital accreditation

The importance of permanent education in health for quality improvement was emphasized and was

pointed out as its basis. It was suggested that permanent education in health was aimed at achieving safe patient care.

[...] the educational process is closely linked to the process of [...] quality and safety [...] if we do not develop people, there is no way we can develop a process of improvement [...]. (P1)

[...] I think it's fundamental [...] we can't improve if we don't have Permanent Education [...] the benefit is the quality of care, the result for the patient, the improvement in the patient's quality of healthcare.[...]. (P9)

Another point highlighted was how permanent education in health helped professionals to constantly stay updated on patient safety protocols and how to perform the procedures properly.

[...] I believe that it is of fundamental importance, because the employee [...] needs to have scientific and technical knowledge to improve... to be updated so that they can provide adequate care [...]. (P17)

Regarding hospital accreditation, the contribution of permanent education in health to achieving the certification was emphasized. [...] for me, there is no hospital accreditation without education; the two go hand in hand, they are bound together [...]. (P20)

[...] the accreditation process... requires in-depth knowledge so that permanent education becomes an ally [...]. (P22)

Educational Strategies for Quality Improvement and Patient Safety

The professionals reported the use of traditional teaching methods, such as theoretical-expository classes and lectures. Moreover, attempts to use active teaching-learning methodologies, such as realistic simulation, conversation circles, workshops and practical classes, were also made.

[...] the forms of training... are diversified... they range from theoretical training in the classrooms, in the au-

ditorium, to in loco training in the units, as I said, realistic simulation, practice, workshop [...]. (P1)

Some participants mentioned the main places in the institution where educational activities take place, such as the event hall, auditorium, and training rooms, and emphasized conducting on-site activities in order to optimize staff adherence.

[...] in loco, we were able to cover it better. So we try to do 15–20 minutes, we try to pick a time when the ward is calmer [...]. (P16)

[...] when we invite lots of people, we always assign them to one of these spaces using the third floor, the auditorium, or the event hall [...]. (P13)

The use of indicators for the evaluation and monitoring of permanent education actions was also recorded, allowing for continuous improvement of the processes, adopting Man-Hours and Adherence Rate to educational activities as indicators.

[...] we have the training Man-Hour, which shows us how many hours per month this person has taken part in training [...] we also have another indicator, which is the number of people who have enrolled and the number of people who have taken part in the course, the Adherence Rate to training indicator... we have these two indicators [...]. (P5)

Discussion

Regarding the difficulty in raising awareness among professionals on the importance of taking part in the training activities, other studies have shown that lack of interest, lack of motivation combined with work overload in healthcare activities, failure of managers to release professionals to take part in permanent education in health activities, and staff shortages, making it difficult to replace those professionals during the time they are away from their duties, were highlighted as the primary obstacles preventing the nursing team from engaging in educational practices.^(18,19)

Another aspect that emerged in this research was resistance to culture change. A study conducted at a hospital in the state of Minas Gerais highlighted some factors that hinder the patient safety culture: professional devaluation, evidenced by low salaries and high staff turnover; inadequate infrastructure; insufficient material resources, such as lack of equipment and essential medications for patient care; and work overload, due to the lack of nursing and medical professionals.⁽²⁰⁾

Thus, it is clear that the factors related to the adherence of professionals to the patient safety culture are not limited only to individual resistance; it is essential that changes occur at an organizational level in order to consolidate the safety culture.^(21,22)

Another challenge facing permanent education in health at the institution studied is high staff turnover, which is directly linked to poor employment relationships. Precarious work is a significant obstacle to the development of permanent education in health, as it leads to a continual loss of qualified professionals and the need to train new professionals.^(23,24) In a survey conducted in three hospitals in a state in southern Brazil, it was identified that the high turnover among permanent education in health managers leads to discontinuity of projects and demotivation of professionals.⁽²⁵⁾

Regarding the contributions of educational activities to strengthening the culture of quality and patient safety, a study conducted in Iran showed that the use of educational activities is an essential resource for achieving accreditation, as investing in professional development directly promotes the improvement of the services offered. To this end, it is essential that the educational objectives align with the organizational objectives of the institution.⁽²⁶⁾

Regarding active methodologies, the use of realistic simulation was evidenced. A study carried out in a university hospital in the South of Brazil on the development of realistic simulation scenarios for teaching safe drug administration demonstrated that this methodological strategy favors the elaboration of scenarios similar to those experienced in the work environment.⁽²⁷⁾ This methodology therefore provides dialogical reflection of the protocols implemented in the institution, investigation of reali-

ty, and working together to identify situations that need to be improved.^(28,29)

When it comes to the places where actions of permanent education in health are carried out, this research showed that at the institution studied, there are specific spaces set aside for this purpose, and that the actions are also carried out *in loco*. A study conducted in Rio Grande do Sul found that having a suitable physical space, with didactic and material resources needed for the permanent education actions, is a favorable factor, as it enables more organized and appropriate activities to be carried out, and places the learning in a more realistic setting.⁽³⁰⁾

Regarding the use of indicators for monitoring permanent education activities, a reflective study identified that quality indicators enable a cyclical analysis of activities, promote situational diagnoses in the planning of future actions, and enable evaluation of activities.⁽³¹⁾

Conclusion

This research shows some of the challenges to the implementation of permanent education in health, ranging from human factors, such as the need to overcome resistance to change and to raise awareness among health professionals to the importance of participating in educational processes, to managerial aspects, such as the difficulty in releasing professionals to participate in educational activities, due to a lack of nursing staff, which directly impacts adherence to permanent education activities. The high turnover of professionals in the institution studied in this research resulted in a constant loss of qualified workers, work overload on the staff, and a constant need to train new staff. Despite this, the research found that the efforts to promote permanent education among the care team following institutional protocols led to improvements in the care provided at the institution and to its recognition as an Accredited Hospital with Excellence in 2022. This study also points out some of the strategies used in the permanent education activities, such as realistic simulation;

conducting educational activities *in loco*, and using indicators to monitor and improve the permanent education actions.

Collaborations

Parente ANP, Ferreira GRON, Cunha CLF, Ramos AMPC, Sá AMM, Haddad MCFL, Parente AT, and Carneiro MS declare that they contributed to the study design, data analysis and interpretation, writing of the article or relevant critical review of the intellectual content, and final approval of the version to be published.

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