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Permanent Health Education: a strategy to improve safe patient identification

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Abstract

Continuing education is understood as a fundamental strategy to promote safe care, which makes it essential to promote and evaluate professional training actions on this topic. The aim of this study is to evaluate the impact of an educational action on patient identification on the knowledge of professionals at a high complexity center in oncology. This is a descriptive, quantitative study carried out in two units of a High Complexity Center in Oncology in the Northeast of Brazil. Data collection took place in June 2021 through a pre and post-test questionnaire and an NPS (Net Promoter Score) scale from 0 to 10 to assess the level of satisfaction. Data were analyzed using simple descriptive and inferential statistics. The results found show that there was low adherence of employees to the educational action, totaling 28.03% of 264 participants. There was an improvement in the average number of correct answers by the collaborators after the application of the educational action asynchronously, from 7.86 to 9.14 ($p<0.001$), which reveals that there was a significant difference in the participants' knowledge after the action was carried out. The result of the NPS was 80.2%, which denotes a Zone of Excellence in the evaluation. There was low adherence to the action, but the graduates demonstrated advances in the area of Quality Management and Patient Safety at the High Complexity Center in Oncology. The expected results of the action demonstrate a positive scenario regarding the proposed objective: among the graduates, there is a gain in professional knowledge and satisfaction with the program.

Keywords: Quality management. Permanent Education. Patient safety.

INTRODUCTION

The Ministry of Health (MH) refers to Permanent Health Education (PHE) as a process of teaching and learning at work that adheres to the routine of institutions and to work itself, based on meaningful and collaborative learning, thus enabling the transformation of professional practices[1].

In this scenario, the hospital institution is considered a complex system due to the connection of processes and structures that directly interfere in the final result. Therefore, the health institution should be even more attentive to the permanent development of care and management in this area[2].

In this context, in February 2004, Ordinance Nº. 198 was launched, establishing the National Policy on Permanent Education in Health as a strategy of the Unified Health System for the

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training and development of workers for the sector and to provide other measures, producing positive effects in the provision of service both individually and for the population[3]. Thus, it can be understood that permanent education strengthens the team's work, improving the quality of services to users.

Inserted in this discussion, beginning in the year 2000, with the publication of the report "Errar é Humano"[4], of the Institute of Medicine of the United States, the subject safety of the patient gained robustness and global relevance, mainly of researchers, starting to have international recognition as a vital influence of quality in health[5-6].

On the national scene, on April 1, 2013, the National Patient Safety Program (NPSP), through Ordinance Nº. 529[7], was created with the general objective of contributing to the qualification of health care in all health establishments in the national territory. In this context, in Art. 5 are NPSP implementation strategies, mentioning the elaboration and support for the implementation of patient safety protocols, guides and manuals.

In the same year, RDC No. 36 of July 25, 2013[8], which institutes actions for patient safety in health services, were published, in addition to Ordinance GM/MS Nº. 1.377 of July 9, 2013[9] and Ordinance Nº. 2.095 of September 24, 2013[10], establishing six basic patient safety protocols, namely: patient identification; pressure injury prevention; safety in the prescription, use and administration of medicines; safe surgery; hand hygiene practice in health services; fall prevention.

That said, given the need to expand discussions on PHE in the context of patient safety, an educational action on Patient Identification was planned through the protocol of the High Complexity Center in Oncology, which was built and approved by members of the Center for Patient Safety of the institution, also using reference protocols for national patient safety policy and scientific documents available in the database.

Therefore, the following research question was outlined: what is the impact of an educational action on patient identification in a center of High Complexity in Oncology? Thus, the objective was to evaluate the impact of an educational action on patient identification on the knowledge of professionals in a high complexity center in oncology.

MATERIALS AND METHODS

This was a descriptive study, with a quantitative approach, carried out in a high complexity center in oncology in Rio Grande do Norte, Brazil, composed of four care units, three in the state capital and one in the countryside. Of these, two participated in the research and both are in the capital city of Natal.

The selection of hospital units considered the most sensitive sectors with the theme of educational action. These will be identified as units 1 and 2, in order to preserve the anonymity of participants.

Unit 1 is a hospital dedicated to exclusive care for patients of the Unified Health System - UHS and the largest. It has 109 inpatient beds with five operating rooms in the surgical center and offices in various specialties, among them: head and neck, internal medicine, gynecology, endocrinology, otolaryngology, dermatology, urology, proctology, and general oncology surgery. It also has a room for minor surgeries, imaging service, pathological analysis laboratories, all with the support of a multidisciplinary team.

Unit 2 is a more diversified hospital, with 97 inpatient beds, a surgical center with seven rooms, an emergency room, chemotherapy, imaging services, pediatric oncology, and two intensive care units.

The study population consisted of employees involved in the patient identification process, such as receptionists, hospital attendants, nutritionists, nutrition technicians, nurses, nursing technicians, and radiology technicians, totaling 264 employees, so that a participation goal was stipulated at the beginning of the action of 50% who complete all stages. Employees who did not complete all stages of the educational action and employees on vacation or leave were excluded from the study.

Data collection was carried out after the end of the application of the action that took place from 05/28/2021 to 06/22/2021, through the Moodle platform, according to the steps of the action that consisted of pre-test, educational action (course), post-test, and NPS (Net Promoter Score). The course consisted of a theoretical module that took place in an asynchronous format, whose theoretical and pedagogical design resulted from a partnership between the service and a federal higher education institution, with a total workload of 4 hours/class in which topics such as: Patient identification in the medical record, in bed, in the request of blood components, in the requests for exams, in the anatomopathological pieces, in imaging exams, notification of incidents, education of the patient, family and care team.

In addition to the theoretical module, the exclusive "Hands-on" format was applied to the professional categories Nursing Technicians (15) and Nurses (6), where there is greater direct contact with the patient in the institution; thus, 21 professionals participated in this phase.

At this moment, a realistic simulation was carried out in a bed of the Oncology Center, with the participation of the Patient Safety Center and participants of this study. In this phase, the following topics were addressed: Patient identification process that ensures that care is provided to the person for whom it is intended in a prudent and guided manner; bedside patient identification, wristband, and patient chart.

To measure the level of knowledge, a pre-test was applied before the beginning of the course and a post-test at the end of the theoretical module with the same configuration, the research instruments were created together with the institution's quality management, taking as reference the protocol “Identification of the patient”, which were subjects addressed in the action and were composed of 10 multiple-choice questions with four alternatives, one of which was correct.

To assess satisfaction, at the end of the course, an electronic questionnaire was used with objective questions using an NPS scale from 0 to 10 to measure the level of satisfaction with the method in which the course was applied.

Thus, the evaluation of the impact of the PHE program was based on the measurement of the variable’s knowledge and satisfaction. Data were analyzed using simple descriptive statistics (n and %) and inferential statistics (Wilcoxon test for analysis of statistical significance between the groups of scores - pre and post-test). The use of the non-parametric test was due to the non-normal distribution of the data.

The study followed the ethical and legal principles that govern scientific research on human beings, recommended in Resolution No. 466/2012 and No. 510/2016, of the National Health Council, preserving the voluntary nature of the participants and the anonymity of the speakers.

The study was submitted for ethical consideration by the Research and Extension Committee (ComPEx) of the hospital complex, receiving a favorable opinion for its execution: Opinion Letter No. PP2108, of May 14, 2021. In addition, it was submitted to the Ethics Committee from the Federal University of Rio Grande do Norte, receiving a favorable opinion for its execution: Opinion Letter No. 4.894.781, CAAE 48210621.1.3001.5293.

RESULTS

Seventy-four employees completed the educational action on Patient Identification, which corresponds to a rate of graduates of 28.03% compared to the total number of subscribers, which denotes low adherence of employees to the educational action (<50%).

The highest participation in the action was in Unit 1, with 42 participants, which is equivalent to a participation rate of 56.75%. Unit 2 showed a participation rate of 43.24%, which is equivalent to a total of 32 participations. The participants worked in both administrative and care areas, with different positions, as shown in Table 1.

It is observed that the highest participations by position held were in the following categories: Receptionist with 26 (35.14%) participants; and Nursing Technician with 15 (20.27%).

The results show that there was an improvement in the employees' average after the application of the educational action asynchronously, from 7.86 to 9.14 ($p<0.001$), which reveals that there was a significant difference in the knowledge of the participants after the action was carried out.

Table 2 presents the results collected in the NPS (Net Promoter Score), referring to the level of satisfaction with the teachers and preceptors of the training, the methodology applied, the workload, and the learning platform (Moodle). In addition, data were collected regarding the chance of recommending the action to a co-worker, what was the general impression of the action and how much the employee believed that the course contributed to their professional training, in addition to positive, general comments and points for improvement.

Regarding the result of the NPS (Net Promoter Score) for measuring the level of satisfaction with the method, the evaluation of the impact of the action obtained a 100% response rate, in which 89.19% declared satisfaction with the faculty, 85.14% with the methodology applied, 83.78% declared satisfaction with the workload, and 78.38% were satisfied with the Moodle platform where the theoretical module of action was applied. Of those who completed, 95.1% said that the educational action contributed a lot to their professional training.

Positive comments were reported regarding the educational action, such as: "Evaluating knowledge, something that was going unnoticed, only with an evaluation I could see my mistake" and "It was not very extensive", in points of improvement, the following suggestions were explained: "Increase the course workload" and "More training for us employees", and finally, "It is great to be able to work in a company that contributes to the teaching and learning of its employees, I feel extremely valued" in the general comments.

Table 1 – Number of participations per position held, per unit (N=74). Natal – RN, 2021.

Role	Unit 1 n (%)	Unit 2 n (%)	Total n (%)
Receptionist	10 (23.81)	16 (50.00)	26 (35.14)
Nursing Technician	14 (33.33)	01 (3.13)	15 (20.27)
Hospital Attendant	04 (9.52)	04 (12.50)	08 (10.81)
Radiology Technician	05 (11.90)	03 (9.38)	08 (10.81)
Specialized Nutritionist	05 (11.90)	00 (0.00)	05 (6.76)
Nutritionist	00 (0.00)	03 (9.38)	03 (4.05)
Nurse	02 (4.76)	01 (3.13)	03 (4.05)
Specialized Nurse	01 (2.38)	02 (6.25)	03 (4.05)
Nutrition Technician	00 (0.00)	01 (3.13)	01 (1.35)
Medical Clinic Attendant	01 (2.38)	00 (0.00)	01 (1.35)
Specialist Nutritionist	00 (0.00)	01 (3.13)	01(1.35)
Total	**42 (100.00)**	**32 (100.00)**	**74 (100.00)**

Table 2 – Result of the NPS of the Patient Identification Educational Action (N=74). Natal – RN, 2021.

Dimension	Satisfied n (%)	Neutral n (%)	Dissatisfied n (%)
Faculty	66 (89.19)	7 (9.46)	1 (1.35)
Methodology	63 (85.14)	10 (13.51)	1 (1.35)
Workload	62 (83.78)	10 (13.51)	2 (2.70)
Moodle Platform	58 (78.38)	14 (18.92)	2 (2.70)

DISCUSSION

The Patient Safety Center is responsible for the implementation of Patient Safety Protocols, among them, patient identification - object of this study - fall prevention, safe medication administration, safe surgery, among others8. In this sense, the NPSP plays an important role in the production process, in the systematization and in the dissemination of knowledge about patient safety[11].

In this context, the Patient Identification Protocol[12] stands out, which aims to ensure that the patient is correctly identified through the standardized white wristband, which must contain at least two identifiers and be placed on a patient's limb, before care should always be checked, thus ensuring that the care provided is given to the intended person, reducing incidents.

In all phases of care, from admission to discharge of the patient, circumstances may occur that potentiate identification failures, this happens due to several factors, from human errors to bed changes, for example[12].

Therefore, Art. 7 of RDC 36/2013 advises that educational actions must be carried out for the periodic training of professionals working in health services, promoting topics that encompass Quality and Patient Safety Tools, as described in item VIII: develop, implement, and monitor safety training programs of the patient and quality in health services[8].

Despite this, the results found showed low

adherence (<50%) among employees in the educational action, especially for professional categories that are part of the gateway to care, in this case, hospital attendants. One of the causes that may have influenced the low adherence was the lack of access to the Internet for some employees, as can be mentioned by the employee in the points of improvement of the educational action: "That it is easier to access the internet". In addition, the lack of prior agreement by the managers of the health institution with the dissemination and propagation of training was observed.

Therefore, it is necessary for health institutions to create actions with managerial support, reinforcing the culture of patient safety, emphasizing the improvement of the quality of health services in line with the goals set by the World Health Organization (WHO) already mentioned at the beginning of this study[13-15].

In the educational action evaluated in this manuscript, professionals from different categories were involved, who were directly involved in the patient identification process, so it was seen that the greatest participation in the educational action were the direct patient care teams (Receptionists and hospital attendants) and nursing team (Nursing Technicians and Nurses) which demonstrates that the participation of other professional categories involved in this process such as Radiology Technicians and Nutritionists should be more assiduously encouraged.

In this regard, a study that compared courses on patient safety offered from an interprofessional perspective showed that, in addition to increasing their knowledge, they also gained added value from these interactions and felt more capable of working in an interprofessional team[16].

In this sense, in the educational action, a significant increase in the average was observed after the application of the action, which proves that the methodology used for the various professional categories showed good results.

Mitre *et al.*[17] note that the new changes in today's world pose challenges to create more and more current and innovative methods. Therefore, in the educational action, realizing this profile and knowing the high work demands of health professionals due to the current pandemic context, a methodology was applied in which the professional could carry out the training remotely, respecting the time of learning.

Positive results were obtained in this regard, which can be exemplified from the opinion of an employee explained in the NPS: "Excellent training, clear and objective" and "Fast and practical, where the employee can watch at breaks or at home".

For Berbel[18], active methodologies are based on the learning development process, using real or simulated scenarios, so that they can solve challenges of essential activities in different contexts. The same author finds in Paulo Freire's work a defense for active methodologies, since for adult education what motivates learning is the resolution of problems and previous experiences of individuals.

In this sense, the "Hands-on" method was applied in the action, in which the student participated in a realistic simulation in a bed of the High Complexity Center with the participation of the team from the Patient Safety Center. In the result of the NPS, satisfactory comments from employees were found in this regard: "Evaluate knowledge! Something that was going unnoticed, only with a practical evaluation could I observe this mistake of mine and this other quote from another professional".

In addition, with the application of the educational action there was a gain in knowledge among the participants, both in the increase in the average after application and mentio-

ned in the NPS per employee in the positive points of the action: "It helped a lot for our knowledge" and "Expanding knowledge and importance for the practice of Patient Safety."

Therefore, the educational actions developed proved to be an alternative to modern educational practice, as it incorporates teaching-learning into the routine of health services, changing educational strategies that aim to value the professional as a reflective actor and builder of knowledge[19].

It is expected that the results presented will contribute to the discussion about the training of professionals, aiming to increase their engagement to provide better patient care, reducing the risk of errors and increasing the quality of health services. As research limitations, in addition to representing only one study site, the high rate of those who did not complete reveals that the application of educational actions, in this case in the area of patient safety, is extremely challenging for the institution.

Despite the good results in the NPS regarding the duration of the course because it is objective and short, which suits the reality of the health professional, there is a need to further promote the subject "Permanent Education" in the Institution, especially in what concerns refers to the importance of linking educational actions to improve the quality of patient care.

CONCLUSION

Educational actions are essential to develop professional skills for the improvement and safety of the service provided to the patient. The study carried out showed advances in the area of Quality Management and Patient Safety at the High Complexity Center in Oncology, so that the results obtained from the action were positive in terms of the expected objective: gain of professional knowledge and satisfaction with the program.

Despite being successful in terms of the methodology applied, the study identified a low adherence of employees and professional categories; therefore, considering the results obtained, it is recommended to create a Permanent Education Center, initially focused on the area of Patient Safety, to strengthen knowledge and good practices in the Institution. In addition to being a support to managers and institutions, who can be able to dedicate themselves to the improvement of educational proposals, the inclusion of new teaching methodologies can make this process continuously improved.

CRediT author statement

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