

SAFETY IN DRUG ADMINISTRATION: EXPERIENCE FROM NORTHERN BRAZIL

SEGURANÇA NA ADMINISTRAÇÃO DE MEDICAMENTOS: RELATO DE EXPERIÊNCIA DO NORTE DO BRASIL

SEGURIDAD EN LA ADMINISTRACIÓN DE MEDICAMENTOS: RELATO DE EXPERIENCIA DEL NORTE DE BRASIL

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Glauca Valente Valadares⁵**Abstract**

This is an experience report about actions developed in the first semester of 2017 promoting continuing education to nursing professionals regarding patient safety in the preparation and administration of medications in primary sectors of a public referral hospital in the high care complexity in the state of Rondônia. We present an account of continuing education in nursing, the teaching-service integration and a discussion about the relevance of these actions in nursing academic training regarding the national curricular guidelines for nursing. The workshops consisted of 132 professionals, most of whom were females with varying ages and length of service at the institution. The most frequent doubts were regarding the calculation of drip, dilution and correct identification of the medication. There was a significant reduction in notifications of medication-related incidents in the year 2017 following such actions. We believe that the shared construction of knowledge as well as the integration of teaching and service in the professional environment can inspire similar processes, provoke reflections on care management, contribute to academic training and build networks to strengthen patient safety.

Keywords: Patient safety; Education, nursing, continuing; Nursing care

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Resumo

Trata-se de um relato de experiência acerca de ações desenvolvidas no 1º semestre de 2017 promovendo educação continuada aos profissionais de enfermagem no tocante à segurança do paciente no preparo e administração de medicamentos, em setores primordiais de um hospital público de referência no atendimento de alta complexidade no estado de Rondônia. Apresentamos um relato de educação continuada em enfermagem, a integração ensino-serviço e uma discussão sobre a relevância dessas ações na formação acadêmica em enfermagem no que concerne atender às diretrizes curriculares nacionais para enfermagem. As oficinas contemplaram 132 profissionais, em sua maioria do sexo feminino com variabilidade na faixa etária e no tempo de serviço na instituição, as dúvidas mais frequentes foram quanto ao cálculo de gotejamento, diluição e identificação correta da medicação. Verificou-se uma redução significativa nas notificações de incidentes relacionados à medicação no ano de 2017 em período posterior a ações como esta. Acreditamos que a construção compartilhada do conhecimento, bem como a integração do ensino e serviço no ambiente profissional pode inspirar processos semelhantes, provocar reflexões sobre a gestão do cuidado, contribuir com a formação acadêmica e a construção de redes para o fortalecimento da segurança do paciente.

Palavras-chave: Segurança do paciente; Educação continuada em enfermagem; Cuidados de enfermagem

Resumen

Se trata de un relato de experiencia acerca de acciones desarrolladas en el primer semestre de 2017 promoviendo educación continuada a los profesionales de enfermería en lo que se refiere a la seguridad del paciente en la preparación y administración de medicamentos en sectores primordiales de un hospital público de referencia en la atención de alta complejidad en el estado de Rondônia. Presentamos un relato de educación continuada en enfermería, la integración enseñanza-servicio y una discusión sobre la relevancia de esas acciones en la formación académica en enfermería en lo que concierne a atender a las directrices curriculares nacionales para enfermería. Los talleres contemplaron 132 profesionales, en su mayoría del sexo femenino con variabilidad en la franja etaria y en el tiempo de servicio en la institución, las dudas más frecuentes fueron en cuanto al cálculo de goteo, dilución e identificación correcta de la medicación. Se verificó una reducción significativa en las notificaciones de incidentes relacionados con la medicación en el año 2017 en período posterior a acciones como ésta. Creemos que la construcción compartida del conocimiento, así como la integración de la enseñanza y el servicio en el ambiente profesional puede inspirar procesos similares, provocar reflexiones sobre la gestión del cuidado, contribuir con la formación académica y la construcción de redes para el fortalecimiento de la seguridad del paciente.

Palabras clave: Seguridad del paciente; Educación continuada en enfermería; Cuidados de enfermería

Introduction

Nursing care is based on the self-knowledge of the profession and in the human, social and applied sciences, being performed by professionals in the social and daily practice of assisting, managing, teaching, educating and researching. It is the duty of the

nursing professional to provide nursing care free of damage resulting from malpractice, neglect or recklessness (COFEN, 2017).

With the global concern for improving the quality of health care, reducing and preventing the occurrence of adverse events, the Ministry of Health (MS) instituted the National Patient Safety Program (PNSP), through the MS/GM Ordinance nº 529 of April 1, 2013, in order to contribute to the qualification of care in the health services of the national territory, to promote improvements related to patient safety, preventing and reducing the incidence of adverse events in care and hospitalization (BRASIL, 2014).

Health services cannot be organized without considering that professionals will make mistakes; the error is human, it is up to the system to create mechanisms to prevent the error from reaching the patient. Among the protocols established by the PNSP based on the six international goals, the goal three addresses the safety in prescription, use and administration of medications (BRASIL, 2014).

In the year 2016, audits were carried out at the Dr. Ary Pinheiro Base Hospital (HBAP), a public referral hospital for high complexity care in the state of Rondônia, by professionals from the Patient Safety Nucleus (NSP) under the guidance of technicians from the German Hospital Oswaldo Cruz of the Program to Support the Institutional Development-Unified Health System (PROADI-SUS).

With regard to the initial evaluation report of the hospital, there was a range of inconsistencies inherent to the drug process in the care units, representing risks that included from the standardization and supervision procedures to the receiving medication, storage and surveillance on controlled and high-surveillance medications. The consolidated also reported on the medications only 2% compliance, 16% partial compliance and 82% non-conformities.

It was then that the hospital managers pointed to the need to update the professionals regarding the medications in attendance to the goal three of the PNSP. Regarding safe practices, it is understood that the administration of medications is a multidisciplinary and interdisciplinary process, demanding technical and practical knowledge. In this process, the administration stage is the last barrier to avoid a medication error derived from the prescription and dispensation processes, increasing with this, the responsibility of the professional administering the medications (BRASIL, 2014).

For Forte, Machado e Pires (2016), Nursing has a close connection with medication errors, and this has occurred mainly due to the adversities of the profession itself, such as formation and deficient knowledge, the stress experienced daily by double or triple working hours, communication failures between team members and distraction; and the fact that nursing, although not the primary responsible for the error in the medication process, is considered as the last barrier to prevent the error from reaching the patient.

According to Oliveira and Rodas (2017), adverse events are responsible for increased morbidity, mortality, time of treatment of patients and care costs, in addition to impacted on people's social and economic lives in several countries.

Continuing education presents itself as an alternative for the development of professionals, being of paramount relevance in hospital institutions where nursing plays an important role, and should be able to achieve the safe and effective realization of Procedures (SILVA, et. al., 2017).

We understand that the liberating pedagogy of Paulo Freire proposes the emancipation and autonomy of the human being, as a valid strategy for the development of health education, as well as in continuing education, having as a reference a dynamic space of Learning, Exchange and knowledge construction (SAUL; SAUL, 2016).

Based on the above, this experience report has been as objective to present actions of continuing education to nursing professionals addressing patient safety in the preparation and administration of medications, representing the teaching-service integration, discussing these actions and their relevance in the training of nurses in attending the national curriculum guidelines for nursing.

Strategy

This is an experience report about continuing education actions that reached the primordial sectors of the HBAP located in the city of Porto Velho, Rondônia. The activities of this experience report were coordinated by the NEP nurse of the hospital in partnership with professors and academics of the last year of the undergraduate nursing

course at the federal university of Rondônia (UNIR), besides the collaboration of professionals of the NSP.

The actions were planned in conjunction with the realization of educational workshops based on the title nursing care in the preparation and administration of medications, aiming at a better reach of the goal three of the PNSP and also creating a space of dialogue between Students, professors and nursing professionals from various sectors regarding patient safety and nursing professional practice, using as a starting point the nine right ones in the preparation and administration of medications.

The workshops were developed weekly during the months of May and June 2017, in a total of 24 meetings lasting 30 minutes each, with approximately eight participants of the nursing team at each workshop. These workshops were carried out in primary sectors of the hospital: Orthopedics I, II, III and IV, Psychiatry, Obstetric Center, Clinical Medicine I and II, Oncopediatrics, Neonatal Intensive Care Unit (UTINEO), Neonatal Intermediates Unit (UCIN), Kangaroo Intermediate Care Unit (UCINCA), Surgical Clinic I and II, Surgical Center, Adult Intensive Therapy Unit (UTIA) and Cardiological Intensive Therapy Unit. The participants of the workshops were nursing technicians and auxiliaries and nurses of the HBAP who were on duty in the respective nursing posts of the sectors already described, who had expressed interest in the invitation extended by the NEP in end of the month of April and beginning of the month of May 2017. In some sectors of the hospital actions occurred repeatedly in different dates and times reaching different teams.

For the realization of the actions, the students of the UNIR were distributed in 12 pairs to conduct the activities, computed for these as extracurricular hours, being supervised by two professors and accompanied by a professional of the NEP and/or the NSP of the hospital to each workshop held.

Regarding the ethical aspects, the participants of the workshops were listed on a frequency list by the NEP and signed a document authorizing the dissemination of this activity, which to be performed had the consent of the hospital management, attending the resolution 466/2012 of the National Health Council, and its report was recorded under the CAAE: 93826318.6.0000.5300 being the publication approved by the Research Ethics Committee of the UNIR under the opinion of number: 2,829,229 on August 18, 2018.

The experience

The HBAP is a reference hospital of the Unified Health System (SUS) for high complexity care in the state of Rondônia and in the North region, with 611 hospitalization beds contemplating several medical specialties. Because it is an activity of continuing education that seeks to promote reflections on the management of care, strengthen the patient safety and allow the integration of teaching-service with the nursing team, with expectation to minimize failures related to the preparation and administration of medications, while collaborating with the professional training process of the academics, was adopted the proposal of Paulo Freire and his liberating/problematising pedagogy for the development of actions (SILVA et. al., 2017).

Thus we build a dynamic space of learning and exchange for the development of knowledge, as a way of opposing the pedagogy of the oppression of transmission of knowledge that has been widely used in training activities of the teams nursing in the hospital environment (SAUL; SAUL, 2016).

The meetings took place in three moments: diagnosis of professionals ' knowledge about the theme in a conversation wheel; Dialogued and participatory exposition on what involves the administration of medications; Reading and delivery of individual consultation material; and qualitative evaluation of the meeting.

Starting from the pedagogical strategy adopted, we performed each stage of the workshops: starting with the oral presentation of each participant and academics; The verification of the professionals ' prior knowledge about the five and nine right ones; At the processes involved in the preparation and administration of medications; The verification with the participants about the main problems, situations and work processes that interfere in the fulfillment of the goal three of the PNSP; Identification of the possibilities in daily practice regarding the adoption of other behaviors in the face of the new content presented and discussed, and the construction of solutions to the problems raised by the group with possibility of implementation in that particular sector.

We used a visual resource (banner and card with the right nine), paper and pen to perform calculations proposed by the monitors, with awards of professionals with more assertive results, rescue of previous knowledge regarding calculations of drug dose fractionation, solution concentration transformation and solution drip calculation; Methods for the medication conference before, during and after the preparation and administration of the medication, dialogued exposition regarding the changes occurring in the method of preparing and administering medications, comparing with what the professionals already knew and justified because of the addition of that point that went from five to nine certain ones (BRAZIL, 2014).

We were attentive to make possible the participants' speech for suggestions and exposure of doubts, developing the activity in a conversation wheel in the Freire's perspective, relying on the active participation of the professionals (PITANO, 2017). During the activities, it was still taken care not to demerit the relocated placements of a more experienced professional for beginners, but at the same time, we emphasize the speed with which knowledge in the field of health change, and the importance of professional update with the aim of providing the best possible assistance and also guided by safety for the professional and for the patient attended.

The penultimate moment was the reading and delivery of a card containing the nine right ones for the preparation of medications that could be attached to the identification badge of the professional. The delivery of this resource was aimed at offering a quick and easy-access consultation material aiming to reinforce the content of the safety target to the patient of number three.

According to Brazil (2014) The nine certain ones do not guarantee that the errors of administration will not occur, but follow them can prevent significant part of these events, improving the safety and quality of care provided to the patient during the process of administration of medicinal products.

The evaluation of the meeting happened in a qualitative way, being performed through an oral approach. The nursing students asked the participants to evaluate the workshop regarding the content, clarity in presentation, materials made available, duration and the environment where they occurred.

Most professionals were motivated in the workshops, expressing the expectation of improving their knowledge about the preparation and administration of medications in

the practice of the profession. This impression was confirmed by the active participation of professionals in all stages of the workshop and the search for the resource of practical use for the day-to-day. In addition, we verified at the time of the invitation that teams (nurses and nursing technicians) from sectors that had not yet participated in the workshops learned of the activities and were studying drug calculations to improve their participation in the workshops.

Results

Although the workshops have occurred during the working period in sectors considered critical, we have expressive participation of nursing professionals in sectors of paramount relevance and high risk regarding the occurrence of adverse events such as Intensive care units (SOUZA; ALVES ALENCAR, 2018; CENEDÉSI, et. al., 2012).

In all 132 nursing professionals participated in the workshops of continuing education, mostly females and with great variability in the age group and time of service in the institution. The main doubts reported during the workshops by the participants were mainly related to the calculation of drip, dilution and the correct identification of the medication, which were elucidated together through the proposed activities.

According to Gomes et. al. (2016) the main situations that comprise the errors of medications are: dosage error, wrong medication, patient exchange, time error, wrong way, besides documentary error, omission of justifications when necessary and others, may cause to the patient, irreparable sequelae or even cause his/her death. In the actions of continuing education, the HBAP nursing professionals recognized the relevance of preventing failures in the processes that involve the preparation and administration of medications mainly in the hospital environment.

This issue of safety in the preparation and administration of medications is of great relevance, so much so that in the year 2017 the WHO launched the third global challenge of patient safety with emphasis on safety in prescription, dispensing, preparation and safe administration medication without damage (BRAZIL, 2017). It is known that the

campaigns help, however, do not transform the health services, and the management develops with the professionals actions that awaken the culture of safety in health care (BRAZIL, 2017).

In this experience, the nursing students, who were monitors of the workshops were qualified and committed to the actions, as to the pedagogical structure adopted met the expectations, being evaluated the format of the workshops positively by the Professionals. This format enabled the approach to groups with professionals of different experiences, which favored discussions and sharing experiences.

The positive points listed by the participants of the workshops were the dynamism in the approach of the content, the adequacy of time and the delivery of material for individual consultation.

It was verified in the posterior audit of the PROADI-SUS in the year 2017 by the NSP of the hospital the registration of only five incidents related to medications, which makes us think that actions like this were relevant in the healthcare sectors. However, we also think that such actions need to be permanent in order to improve the safety culture in the unit and also reduce situations of underreporting of incidents.

We understand the partnership between teaching and service, that is, the academy and the health service as something essential for the construction of knowledge and of great relevance to the formation of future nurses. Continuing education actions with emphasis on patient safety have been carried out in several realities in Brazil and other countries always in order to change the health care processes and strengthen the patient safety culture in several institutions (HEMESATH et. al., 2015; BOYLE; EASTWOOD, 2018; SAVAGE, 2015; WALSH, 2018; BULL et. al, 2017).

The reported experience provided nursing students with a training aligned to the National Curriculum Guidelines (DCN) for nursing and also contemplating the principles of the SUS, in order to achieve a generalist, critical, humanistic and reflective, where these scholars were able to demonstrate feeling prepared for work in the hospital service (BRASIL, 2001).

Actions such as that of the report are consistent with the DCN for nursing by recommending that professionals should be able to continually learn, both in their education and in their practice, learning to learn and having responsibility and commitment to Education and training/traineeships of future generations of

professionals, not only transmitting knowledge, but providing conditions for mutual benefit among future professionals and service professionals (BRASIL, 2001; FERNANDES et. al, 2013).

Developing actions of continuing education the process of professional training allows and enables the development of a critical citizen, able to face the rapid changes of knowledge and its reflexes in the world of work¹⁸. According to the profile described in the nursing DCN, the nurse's training must meet the social needs of health, with emphasis on the SUS, besides ensuring the integrality of care and the quality and humanization of care (BRAZIL, 2001).

We understand that there are several challenges regarding the way of thinking and health care, especially in SUS services, where the practices seized in the care production process should meet the needs of users with tools that go beyond the execution of technical knowledge with scientific foundations, but also extending to the political, organizational and symbolic fields (ASSIS et. al., 2015).

When we think of this action of continuing education, we consider that it should mobilize professionals to adopt safe practices, instigating some to a change in behavior, and at the same time providing the qualification of the academic for the service; and by adopting transmissive pedagogy, these objectives are not always achieved. We believe that continuing education should instrumentalize the management of care, then propose the establishment of clinical protocols, and thus go reconfiguring the care provided.

We applied both in the academic education of the future nurse and in the workshops that were performed, as reported, the liberating pedagogy of Freire, since the adoption of dialogical and participatory methodologies, committed to the construction of knowledge, provide the learner with knowledge, competence and know-how, implicated in the changes of society to act with autonomy, efficiency and efficacy in the health service (WINTERS; DO-PRADO; HEIDEMANN, 2016).

Conclusions

This experience has brought reflections on the management of care regarding the possibility of performing continuing education performed from items as a goal for patient safety. The use of the conversation wheel resource in the perspective of Paulo Freire in the professional update favoring the horizontal dialogue on the work process of the participants enabling reflections on the challenges to safe practices.

We also present the partnership between the university and a health institution, where the joint approach of the academics and nursing professionals enabled the reinforcement of basic contents as the calculation of medications and presented new content regarding the methodology of the nine right ones for the preparation and administration of medications. Arousing reflection on everyday attitudes, from a knowledge of practical application, whose result was a shared construction of knowledge culminating with the updating of professionals and reduction in notifications of incidents Related to medication in the aforementioned hospital in the year 2017.

We believe that such experience can inspire similar processes, provoke reflections on the management of care, and contribute to the academic training and the construction of networks for the strengthening of patient safety.

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