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CASE REPORT ARTICLE

PREVENTION OF PRESSURE ULCERS IN INTENSIVE CARE UNITS: AN EXPERIENCE REPORT

PREVENÇÃO DE ÚLCERAS POR PRESSÃO EM UNIDADE DE TERAPIA INTENSIVA: UM RELATO DE EXPERIÊNCIA

PREVENCIÓN DE ÚLCERAS POR PRESIÓN EN UNIDAD DE CUIDADOS INTENSIVOS: UN RELATO DE EXPERIENCIA

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ABSTRACT

Objective: to present the experience of an educational activity carried out by students of the 9th semester of the Undergraduate Nursing Program of the Federal University of Recôncavo da Bahia during the training period in an intensive care unit. ***Method:*** descriptive study with an experience report on an intervention project of the curriculum of Supervised Practice II, from which an educational activity was performed. ***Results:*** the participants found that the construction of knowledge about the prevention of pressure ulcers and the clarification of doubts were positive. ***Conclusion:*** the experience contributed to changes in the intensive care unit setting, where there was significant improvement in pressure ulcer prevention. Continuous updating of health professionals is necessary to provide more appropriate care to patients in the face of the various risk factors that promote the emergence of pressure ulcer. ***Descriptors:*** Prevention; Decubitus Ulcers; Intensive Care Unit.

RESUMO

Objetivo: apresentar a experiência de uma atividade educativa desenvolvida por estudantes do 9º semestre de Enfermagem da Universidade Federal do Recôncavo da Bahia, durante o período de estágio em uma unidade de terapia intensiva. ***Método:*** estudo descritivo, do tipo relato de experiência, referente a um projeto de intervenção do componente curricular Estágio Supervisionado II, a partir do qual se desenvolveu uma atividade educativa. ***Resultados:*** os participantes julgaram positivos a construção do conhecimento sobre a prevenção de úlcera por pressão e o esclarecimento das dúvidas. ***Conclusão:*** a experiência contribuiu para a mudança do cenário da unidade de terapia intensiva, onde houve melhora significativa na prevenção da úlcera por pressão. A atualização contínua dos profissionais da saúde é necessária para prestar um cuidado mais adequado junto ao paciente diante dos diversos fatores de risco que promovem o surgimento de úlcera por pressão. ***Descritores:*** Prevenção; Úlceras de Decúbito; Unidade de Terapia Intensiva.

RESUMEN

Objetivo: presentar la experiencia de una actividad educativa desarrollada por los estudiantes del 9° semestre de Enfermería de la Universidad Federal del Recôncavo da Bahía, durante el período de entrenamiento en una unidad de cuidados intensivos. ***Método:*** estudio descriptivo con relato de experiencia sobre un proyecto de intervención perteneciente a la malla curricular de Práctica Supervisada II, de la cual se desarrolló una actividad educativa. ***Resultados:*** los participantes juzgaron positivos la construcción de conocimientos sobre la prevención de úlcera por presión y el esclarecimiento de dudas. ***Conclusión:*** la experiencia contribuyó al cambio en el contexto de la unidad de cuidados intensivos, donde hubo una mejora significativa en la prevención de úlceras por presión. La actualización continua de profesionales de la salud es necesaria para proporcionar una atención más apropiada a los pacientes ante los diversos factores de riesgo que promueven la aparición de úlcera por presión. ***Descriptores:*** Prevención; Úlceras de Decúbito; Unidad de Cuidados Intensivos.

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INTRODUCTION

Pressure ulcer (PU) is defined as an area of tissue necrosis formed when the tissue is squeezed between a bony prominence and a hard surface for a certain period of time. Its treatment is in third place in health expenditure, just behind cancer treatment and heart surgery.[1]

PUs are a problem that amounts to about 9% of hospitalized patients—especially older adults—and 23% of bedridden patients undergoing domiciliary care.[2] PUs produce intense suffering in individuals affected by them and their families. In addition, PUs reflect negatively on quality indexes of health services and on the cost to treat the lesions.[3] They prolong hospitalization and hinder the recovery of the patients, increasing the risk of developing complications. At the same time, they represent an increase in patients' physical and emotional suffering.[4]

PUs affect mainly hospitalized patients, since they are susceptible to a combination of extrinsic and intrinsic factors that are closely related to the emergence of these lesions. The main extrinsic factors involved in the development of PUs are essentially pressure, friction, and shearing.[5]

Despite the high incidence, the measures to prevent PUs are basic and many ulcers can be prevented. Changing from supine to right and left decubitus positions is the simplest way for the prevention of PUs. On the other hand, hygiene and skin hydration, moisture control, positioning support, nutrition and hydration optimization, and the prevention of friction and shearing are strategies to reduce the manifestation of PUs.[3]

In any healthcare context, the prevention of PUs requires a systematic approach that begins with the assessment of patients, identification of risks, and adoption of specific measures for each case. All these procedures involve all health professionals who provide care to these patients.[6]

It is known that the occurrence of PU is often found in hospitalized patients with acute or chronic aggravations.[7] In this sense, the incidence of PU in patients admitted to intensive care units (ICU) is greater than in other hospital units. This is due to the decreased sensory perception caused by sedatives, painkillers, and muscle relaxants. Among the complications to which patients admitted to ICUs are susceptible, PUs still constitute a major challenge for health services, given the complexity of actions that involve the prevention and treatment of these lesions.[8]

The first line of defense of the body against aggressions is the skin, and nurses are responsible for the maintenance of its integrity.[4] The prevention of PUs deserves attention from the entire multidisciplinary team, and the nursing staff has the greatest responsibility for the prevention of PUs, because these professionals remain longer providing direct care to the patients.[3] Therefore, the development of PUs is a negative indicator of nursing care quality.[2]

From these reflections, the goal of the present study was to present the experience of an intervention project prepared and carried out by students of the 9th semester of the Undergraduate Nursing Program of the Federal University of Recôncavo da Bahia (UFRB). The intervention took place in an ICU of a midsized hospital of Recôncavo da Bahia from July to September 2014. This location was chosen for the accomplishment of the activity because it was the training field for the students of the UFRB. The topic of PU was proposed by the Nursing Coordination at the ICU in view of the need to minimize the occurrence of PUs at the unit.

Such intervention activity performed by the students was relevant in order to strengthen the action research among teachers, students and health professionals, proposing the updating of procedures with respect to PUs and, thus, improving the qualification of health services.

METHOD

This is a descriptive study with an experience report on an intervention project of the curriculum of Supervised Practice II, from which an educational activity was prepared and carried out in an ICU of a hospital in Recôncavo da Bahia, BA, Brazil, in August and September 2014. Even though the focus of the educational activity was on the nursing staff, the whole team of the ICU was invited to participate. In this way, each participant's decision to participate was taking into consideration.

This hospital had two ICUs (ICU-A and ICU-B). These units had 12 nurses, 53 nursing technicians, 12 physiotherapists, and 10 physicians. However, only nine nurses, 35 nursing technicians, five physiotherapists, and one physician could/accepted to participate in the activity. Since this was the training field for students of the UFRB, the activity became easier to be performed, because

there was a pre-established link between the institutions.

Professionals' availability to participate in the activity was taken into consideration. For this reason, the students took advantage of the most appropriate time to carry it out. On days when the students could not perform the activity, other attempts were performed in subsequent shifts, considering at least three attempts before excluding a team from the study.

The work was carried out in three steps. In the first, the Nursing Coordination of the ICU was contacted in order to schedule the dates and present the lesson plan. This plan contained: identification of the topic; general objective; specific objective; content to be worked; strategy; assessment; and references used.

The second step was the production of a flip chart. It was used to address the topic and to serve subsequently as an informative material at the ICU. This material was prepared with attractive images and information from safe and current sources, such as BIREME (Virtual Health Library) and SciELO (Scientific Electronic Library Online) databases. The authors of this flip chart considered that this methodology would facilitate performing the educational activity and encourage the dialogue among the participants.

The third step was the development and performance of the educational action with the ICU team (nurses, nursing technicians, physiotherapists, and physicians). The activity lasted on average 30 minutes and addressed the following sub-themes contained in the flip chart: definition of PU; risk factors of PU; risk areas; stages of PU; preventive measures; responsibility for prevention; and final considerations.

Three steps were established for performing the educational activity with the team. The first consisted of handing out papers at random to the participants containing sentences relating to the topic. All the participants reported their knowledge related to the sentences received. This way, the topics discussed allowed the exchange of knowledge between the participants. In the second step, explanations concerning the questions and previous discussions were given using the figures of the flip chart prepared by the students In the last step. The participants were asked to identify the risk factors of PU in a patient admitted to the ICU and the alternatives that could be used to prevent the onset of the lesion.

RESULTS AND DISCUSSION

The intervention project had a theoretical and methodological approach focused on listening and interaction with the health professionals. Discussions and individual and collective construction of knowledge were encouraged. The intervention was based on the dialogic model proposed by Paulo Freire. Health education proposed by Paulo Freire is based on free participation of those involved by thinking and managing their knowledge. This procedure allows new perspectives and a more efficient approach to promote health.[9]

The planning and implementation process of the educational project was characterized by many concerns about more adequate methodological aspects to carry out the activity in the ICU, This is a environment with a complex work process that requires continuous monitoring provided by the multidisciplinary team to the patients.

From the daily analysis of the best time to perform the activity, the goal was to establish a time when the team did not have a significant demand, so that everyone could participate. However, the activity was not performed with all the professionals of the ICU, because there were shifts in which it was not possible to gather all of them to participate in the activity. To encourage all the participants to participate in the activities, they were performed quickly and objectively in the late afternoons in each ICU. As a result, it was possible that each team remained close to the patients.

Recognizing the importance of dialogue and addressing the topic from the experiences and prior knowledge of the professionals, the above mentioned papers were handed out to the participants in order to carry out the activity. There was full participation of the majority of the professionals with respect to the topic. The long period of training allowed creating ties with the team. This fact made them feel more comfortable to discuss their perceptions and knowledge. Few participants were reluctant to respond. When one participant was speaking, others spontaneously reported something related to the sentence that they had received.

This initial step of the activity enabled a reflective, interactive, and participatory moment, promoting the deconstruction and construction of individual and collective knowledge. From this perspective, the process of continuing health education is targeted at the transformation of the practice, discussion of reality, and improvement in the quality of services. To that end, this process should be

based on communication technologies that allow proper learning, supported by reflective, dialogic, contextual, constructive, and collaborative thinking.[10] It is worth emphasizing that the great hospital demand for the reduced number of professionals makes the use of this tool in health services difficult, especially when it comes to the complexity of the work process in an ICU.

In this step, it was observed that the professionals had a lack of knowledge about the topic. Regarding the issues related to risk factors of PU, many of them did not associate moisture in the beds, shear force, edema, and chronic diseases with the development of ulcers. A wrongful and rooted knowledge about the stages of UP was observed in most of the professionals, who had a similar conviction about every stage. In addition, many professionals believed that the terms eschar and PU were synonymous.

Even though the nursing staff knew prevention procedures, the statements of the participants revealed that the way to accomplish these procedures did not occur effectively. Some participants knew that hydration, skin massage, cushions, and pads were important; however, they were not aware that skin massage should not be performed in prominences nor in areas of hyperemia. In addition, they were not aware that the application of moisturizers should be performed smoothly and in circular movements, and that positioning support should be applied above the area that was intended to relieve.[3] In addition, it was also observed that some nursing technicians did not know the Braden scale for predicting pressure sore risk, even though the scale is attached to each patient's medical record, to which they have access whenever they need. Nurses know the scale and use it at the time of admission; however, the statements of the participants revealed that there was no evaluation of the scale during hospitalization nor they used this instrument in another moment than on admission.

It is assumed that the lack of knowledge about the abovementioned issues results from the discontinuity of continuing education in the unit and the large turnover of professionals. This fact allowed perceiving the need of preparing the flip chart. Printed materials used in health education are intended to disseminate important information about prevention and treatment of diseases, strengthen guidance, and, if used appropriately, bring benefits to the participants.[11]

In general, the participants were interested in the material. The images drew their attention, especially the pictures of the stages of the ulcers and the differentiation between eschar and PU. They could clearly perceive that difference, as well as every stage of PU.

The professionals also reported that the flip chart would be a useful tool in the unit, since there were several doubts about the topic. In addition, due to the fact that the team was always changing, they reported that the flip chart would give opportunity to professionals who had not participated in the intervention to learn more about PUs. However, it is worth mentioning that it is not just the lack of knowledge about PU that hinders the quality of nursing service. The intervention project allowed observing that deficient work conditions at the ICU hindered the prevention of ulcers. The shortage of professionals for the number of patients was evident, which resulted in lack of time to prevent PUs and lack of materials that promoted their prevention.

After all the steps, the students chose randomly one patient so that the participants could identify the risk factors of PU and what they could do to reduce such factors. Such a step was an assessment aimed at promoting reflection and interaction between the performance and the theory previously discussed. Some felt reluctant to respond in front of their colleagues. On the other hand, the vast majority responded in a satisfactory and participatory manner, which demonstrated that the activity was positive in the sense of promoting the construction and deconstruction of knowledge about the prevention of PU.

At the end of the activity, the health professionals were encourage to report their opinions about the intervention. Most of them expressed the satisfaction of having participated, stating that it had been of great value for learning, the consolidation of previous knowledge, and clarification of doubts.

CONCLUSION

This intervention project provided the students with a great learning experience about the prevention of PUs. They were encouraged to be future critical professionals and able to propose reflections on this regard to other health professionals. This fact represents a significant advance, given the lack of knowledge that some professionals have concerning this topic.

Given the magnitude of the impact caused by PU, there is a need of continuous updating on the part of multidisciplinary teams, especially the nursing staff. As it is known, a good prevention work requires knowledge of the etiology and the reality of the institution. This way, skilled health professionals will have a well grounded technical knowledge to be applied in their performance in order to provide high-quality healthcare. In addition, it is necessary that health institutions have sufficient human and material resources to meet the demand needed to prevent PUs. In this way, the effects of ulcers in the patients, families, multidisciplinary teams, and the entire health system will be minimized.

The activity conducted in the present study contributed to a change in the ICU setting, where there was a significant improvement in the prevention of PUs. This fact is based on a non-systematic observation of post-intervention reality. The team put into practice the ways of prevention and this was reflected in decreased development of PUs in patients admitted to that ICU.

Therefore, in view of what has been reported, the responsibility of the entire multidisciplinary team for prevention of ulcers increases. Healthcare professionals who are aware and committed to society intervene as a tool for the improvement in living conditions and health.

It is believed that this study can contribute to discussions and reflections on the teaching-learning process between universities and health institutions, in order to collaborate in the training of health professionals and the improvement in the quality of health services.

REFERENCES

1. Freitas JPC, Alberti LR. Aplicação da Escala de Braden em domicílio: incidência e fatores associados a úlcera por pressão. Acta Paul Enferm; 26(6): 515-21; 2013.

2. Freitas MC, Medeiros ABF, Guedes MVC, Almeida PC, Galiza FT, Nogueira JM. Úlcera por pressão em idosos institucionalizados: análise da prevalência e fatores de risco. Rev Gaúcha Enferm (Online) [serial on the Internet]. 2011 Mar [cited 2014 Sept 20];32(1):143-50. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1983-14472011000100019&lng=en. http://dx.doi.org/10.1590/S1983-14472011000100019.

3. Carvalho ES. Como cuidar de pessoas com feridas: desafios para a prática multiprofissional/Evanilda Souza de Santana Carvalho, com a elaboração de Ana Altina Cambuí Pereira... [et al.]. Salvador: Atualiza Editora; 2012.

4. Passos SSS, Sadiguski D, Carvalho ESS. Promoção da integridade da pele do paciente com dependência à mobilidade: discurso de uma equipe de enfermagem. J Nurs UFPE on line [Internet]. 2010 [cited 2014 Sep 20];4(3):1498-5. Available from: http://bases.bireme.br/cgi-bin/wxislind.exe/iah/online/?IsisScript=iah/iah.xis&src=google&base=BDENF&lang=p&nextAction=lnk&exp0rSearch=20350&indexSearch=ID

5. Souza TS, Danski MTR, Johann DA, De Lazzari LSM, Mingorance P. Prevention's pressure ulcers heel with transparent polyurethane film. Acta paul enferm [Internet]. 2013 [cited 2014 Sept 20];26(4):345-352. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0103-21002013000400008&lng=en. http://dx.doi.org/10.1590/S0103-21002013000400008.

6. Chayamiti EMPC, Caliri MHL. Pressure ulcer in patients under home care. Acta paul enferm [serial on the Internet]. 2010 [cited 2014 Sep 20];23(1):29-34. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0103-21002010000100005&lng=en. http://dx.doi.org/10.1590/S0103-21002010000100005

7. Donoso MTV, Borges EL, Carazzato CPR. Prevalência de úlceras por pressão em pacientes internados em uma Unidade cirúrgica de um Hospital Universitário. J Nurs UFPE on line [internet]. 2011 [cited 2014 Sept 20];5(7):1684-690. Available from: http://www.ufpe.br/revistaenfermagem/index.php/revista/article/view/1601/pdf_621

8. Dantas ALM, Araújo JDB DE, Ferreira PC. Prevenção de úlceras por pressão segundo a perspectiva do enfermeiro intensivista. J Nurs UFPE on line [serial on the internet]. 2013 [cited 2014 Sept 20];7(1):706-12. Available from: http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/view/3630/pdf_2151

9. Silva EWNL, Araújo RA, Oliveira EC, Falcão VTFL. Aplicabilidade do protocolo de prevenção de úlcera de pressão. Rev Bras Ter Intensiva. 22(2):175-185; 2010.

10. Guimarães EMP, Martin SH, Rabelo FCP. Educación Permanente Em Salud: Reflexiones y desafios. Cienc enferm v16 n2 Concepción ago 2010. CIENCIA Y ENFERMERÍA XVI (2): 25-33; 2010.

11. Freitas FV, Rezende Filho LA. Communication models and use of printed materials in health care education: a

bibliographic survey. Interface – Comunic Saude Educ. 2010.

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