ORIGINAL ARTICLE

REVISTA ENFERMAGEM ATUAL IN DERME

EDUCATIONAL INTERVENTION IN THE IDENTIFICATION OF PRESSURE INJURIES IN CLINICAL UNITS

INTERVENCIÓN EDUCATIVA PARA IDENTIFICAR LESIONES POR PRESIÓN EN UNIDADES CLÍNICAS

INTERVENÇÃO EDUCACIONAL NA IDENTIFICAÇÃO DE LESÃO POR PRESSÃO EM UNIDADES CLÍNICAS

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ABSTRACT
Aim: to assess the knowledge of nursing professionals before and after an educational intervention on the classification of pressure injuries in clinical units of a university hospital. **Method**: a quasi-experimental, before-and-after study with a single group, carried out in the clinical units of a university hospital in the state of Rio de Janeiro. The sample consisted of 40 nurses and nursing residents who worked in the clinical units and provided nursing care to patients with PI. Data collection took place between April and May 2023, using a structured form containing clinical cases of pressure injury classifications. The data was analyzed using the Wilcoxon and McNemar statistical tests. **Results**: there was a significant improvement in post-training scores ($p<0.0001$), specifically in the classification of PI in stages 2 and 3, and in deep tissue. **Conclusão**: the training program was effective, considering the increase in the number of correct answers in the post-test and the statistical significance after the training.
Keywords: Pressure Ulcer; Environmental Health Education; Patient Safety; Enterostomal Therapy.

RESUMEN
Objetivo: evaluar la eficacia de una intervención educativa desarrollada para profesionales de enfermería sobre la clasificación de lesiones por presión en unidades clínicas de un hospital universitario. **Material y método**: estudio cuasi-experimental, antes y después, de grupo único, realizado en las unidades clínicas de un hospital universitario del estado de Rio de Janeiro. La muestra fue constituida por 40 enfermeros y residentes de enfermería que trabajaban en las unidades clínicas y prestaban cuidados de enfermería a pacientes con IP. La recogida de datos se realizó entre abril y mayo de 2023, utilizando un formulario estructurado que contenía casos clínicos de clasificación de lesiones por presión. Los datos se analizaron mediante las pruebas estadísticas de Wilcoxon y McNemar. **Resultados**: hubo una mejora significativa en las puntuaciones post-entrenamiento ($p<0,0001$), específicamente en la clasificación de IP en estadios 2 y 3, y en tejido profundo. **Conclusion**: el programa de formación fue eficaz, teniendo en cuenta el aumento del número de respuestas correctas en la prueba posterior y la significación estadística tras la formación.
Palabras clave: Úlcera por Presión; Educación en Salud; Seguridad del Paciente; Estomaterapia**.**

RESUMO
Objetivo: avaliar a eficácia de uma intervenção educacional desenvolvida para profissionais de enfermagem acerca da classificação de lesão por pressão em unidades clínicas de um hospital universitário. **Método**: estudo quase-experimental, antes e depois, com único grupo, desenvolvido em unidades clínicas de um hospital universitário no Estado do Rio de Janeiro. A amostra foi composta por 40 enfermeiros e residentes de enfermagem que atuavam nas unidades clínicas e que realizaram cuidados de enfermagem em pacientes com LP. A coleta de dados ocorreu entre os meses de abril e maio de 2023, a partir de um formulário estruturado contendo casos clínicos de classificações de lesões por pressão. Os dados foram analisados por meio dos testes estatísticos de Wilcoxon e McNemar. **Resultados**: verificou-se uma melhora significativa nas pontuações pós-treinamento ($p<0,0001$), especificamente na classificação das LP nos estágios 2 e 3, e na tissular profunda. **Conclusão**: o programa de treinamento foi efetivo, considerando o aumento do número de respostas corretas no pós-teste e a significância estatística após o treinamento.
Palavras-chave: Lesão por Pressão; Educação em Saúde; Segurança do Paciente; Estomaterapia.

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INTRODUCTION

The tertiary care setting presents several demands regarding safe, high-quality, and harm-free care for hospitalized patients. Regarding these aspects, pressure injuries (PIs) emerge as a challenge for nursing staff[1].

This condition is defined as an injury that affects the integrity of the skin and/or underlying soft tissue, often over a bony prominence, caused by a certain amount of pressure[2].

According to international guidelines, PIs can be classified into six stages: Stage 1 PI - intact skin with non-blanching erythema; Stage 2 PI - partial-thickness skin loss with exposed dermis; Stage 3 PI - full-thickness skin loss; Stage 4 PI - full-thickness skin loss and tissue loss; Unclassifiable PI - full-thickness skin loss and non-visible tissue loss; and Deep Tissue PI, characterized by the presence of dark red, brown, or purple discoloration that does not blanch, or manifests as a discontinuity of the tissue with a darkened bed or blister with bloody exudate[3].

In addition to these stages, two additional classifications can be identified: Medical Device-Related PI (MDRPLI) and Mucous Membrane PI. The former's etiology is related to the pressure exerted on the tissue by equipment used in the user's therapy, such as probes, drains, catheters, and other devices, and is staged according to the PI classification system. The latter, although associated with the use of healthcare equipment, occurs exclusively in mucous membranes and cannot be staged due to the specific characteristics of the anatomical structure[3].

PI represents a major public health concern. In Brazil, from 2014 to 2022, it was the second most reported incident in the country. Furthermore, it contributed to the deaths of 65 individuals and generated 26,735 reports classified as never events (events that should never occur in healthcare settings), of which 19,307 (72.21%) were due to stage 3 PI and 5,769 (21.57%) were due to stage 4 PI[4].

In 2023, it ranked third in the most reported cases, exceeding 60,000 records. Therefore, it is clear that PI is a multifaceted problem and requires interventions to prevent and mitigate its health impacts[4].

In this sense, the practice of educational intervention in health services emerges as a strategy used in healthcare settings. This action integrates teaching, service, management, and social control to seek solutions to health problems through critical thinking at different levels of care[5].

In addition, health education involves guiding best practices and acquiring new knowledge for professional practice, influencing the adoption of behavioral changes aimed at transforming the reality of the workplace[6].

This allows for improving professional performance and promoting the resolvability, effectiveness, and efficiency of the healthcare system[5].

Nurses are the professionals who care for people with PI. Their care involves practices

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related to prevention, diagnosis, rehabilitation, and monitoring of this condition. Their role is to assess, prescribe, and administer dressings and other care for individuals with all types of injuries, in addition to training other nursing staff, such as nursing technicians and assistants, who provide care, among other functions[7-8].

However, PI management is complex, considering the various stages and multifaceted manifestations of this wound. This requires nurses to have qualified knowledge for clinical decision-making and appropriate management[7-8].

Studies indicate that nurses' ability to identify and assess PI is deficient in clinical practice, highlighting the need for greater educational practices[9-10]. This difficulty also stems from the academic training process, which leads to the conclusion that this topic requires more strategic approaches in disciplines related to stomatherapy, especially in the area of wounds[9,11].

Therefore, it is essential to train nurses to provide care to patients with PI or those at risk for developing it, focusing on prevention, treatment, and other therapeutic approaches. Furthermore, accurate recognition of the specific classifications and etiologies of PI enables professionals to conduct appropriate prevention and management[9].

Therefore, this study aimed to evaluate the effectiveness of an educational intervention developed for nursing professionals regarding PI classification in clinical units of a university hospital.

METHOD

Study design:

This is a quasi-experimental, single-group, before-and-after study conducted between April and May 2023 in clinical units of a university hospital in the state of Rio de Janeiro. The clinical units have a patient profile with acute and chronic conditions, mostly elderly, recurrent hospitalizations, associated comorbidities, and a high prevalence of PI associated with prolonged hospitalization times.

Selection of participants:

The study included nurses and nursing residents who provided direct care to patients in clinical units during the data collection period. Professionals on vacation or leave of any kind were excluded.

Data collection:

Data collection was conducted through two structured forms in a private area of the units, ensuring anonymity, confidentiality, and privacy. Google Forms software was used for this purpose, accessed through computers connected to the internet.

The first form was divided into two stages:

The first stage comprised the sociodemographic characteristics of the participants, identifying their professional

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affiliation, age, length of professional experience, postgraduate degree in wound care, such as dermatology or stomatherapy, and other healthcare training.

The second stage consisted of assessing the participants' prior knowledge of the LP classifications (pre-test). To this end, eight clinical cases were created, based on real images extracted from clinical guidelines, corresponding to each existing LP classification. The participant analyzed each clinical case and, based on their judgment, determined the LP stage of each situation presented.

After completing the first form, the educational intervention began immediately. Upon completion, the second and final form (post-test) was administered. This consisted of the same clinical cases previously addressed in the first form.

It should be noted that a pilot test was administered to five participants to assess the need for adjustments to the instrument. However, no modifications were identified, so the aforementioned participants comprised the final sample.

Educational intervention process:

Two of the researchers in this study are stoma care nurses with experience in care, teaching, and research. Therefore, they guided and participated in the development of the educational material to be used in the intervention process.

This instrument was developed based on textual information about pressure ulcers according to international and national clinical guidelines[3-12].

To clarify and enhance understanding of what would be discussed, real images, made available online by the National Pressure Ulcer Advisory Panel (NPUAP), an organization of wound specialists specializing in pressure ulcers, were extracted and added to the material, using clear, objective language that was accessible to participants[13].

Subsequently, all the information gathered was compiled in Microsoft PowerPoint for presentation in an educational and informative format.

The training for professionals was implemented in a lecture and discussion format, characterized by a single session, lasting an average of 30 minutes, through group meetings with the researchers and participants.

To explain the specificities of each injury, the participants discussed prevalent characteristics, clinical findings, and compared the differences and similarities at each stage, as well as the involvement of the anatomical structures involved, among other factors.

At the end, participants had the opportunity to raise questions, which were answered by the researchers. Furthermore, the professionals shared relevant insights on the topic, sparking debates that reinforced the teaching-learning process.

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Data Analysis Technique:

The data were tabulated and stored in a Microsoft Excel spreadsheet. The results of the first form were described using simple statistics, while the pre- and post-test data were compared using the Wilcoxon and McNemar tests, using IBM SPSS Statistics software. Results of $p \leq 0.05$ were considered significant.

Ethical Aspects:

Participants who agreed to participate in the study signed an informed consent form, ensuring the confidentiality and anonymity of their responses, which were used solely for the purposes of the study.

The research was approved by the Ethics Committee for Research Involving Human Subjects, as determined by Resolution No. 466 of December 12, 2012, of the National Health Council, under opinion CAE 16427419.3.0000.525.

RESULTS

Forty nurses working in clinical units participated in the intervention, of which 22 (55%) were residents, 10 (25%) were civil servants, and 8 (20%) were nurse fellows from care projects developed at the institution. The study intervention was achieved in 100% of the sample.

The average age was 33.65 years. Regarding gender, 34 (85%) were female and 6 (15%) were male.

Regarding professional experience, 23 (57.5%) had less than 5 years of experience, 6 (15%) had between 5 and 10 years, and 11 (27.5%) had more than 10 years of experience.

Regarding specialization in skin lesions, only 1 (2.5%) participant had a postgraduate degree in stomatherapy. The remaining participants reported not having any specialization in skin care, such as dermatological nursing or stomatherapy.

Regarding pressure injury training in the last 12 months, 19 (47.5%) participants reported having received some training at the institution, while 21 (52.5%) had not received any training on the topic. Of those who received training, 13 (68.42%) stated they still felt the need for more training, while 6 (31.58%) believed the approaches were sufficient for clinical practice.

The results obtained in the pre-test and post-test are shown in Table 1.

Table 1 - Distribution of results regarding knowledge about pressure injury classification. Rio de Janeiro, RJ, Brazil, 2023.

Clinical Case - Pressure Injury Classification	**Pre-test Correct answers n (%)**	**Post-test correct answers n (%)**
Stage 2 Pressure Injury	2 (12,5)	23 (57,5)

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Deep Tissue Pressure Injury	7 (17,5)	21 (52,5)
Stage 4 Pressure Injury	14 (35,0)	29 (72,5)
Pressure Injury to Mucous Membranes	27 (67,5)	29 (72,5)
Medical Device Pressure Injury	27 (67,5)	33 (82,5)
Unclassifiable Pressure Injury	28 (70,0)	35 (87,5)
Stage 3 Pressure Injury	32 (80,0)	32 (80,0)
Stage 1 Pressure Injury	34 (85,0)	35 (87,5)
Total	40 (100)	40 (100)

Table 2 represents the changes obtained after the Wilcoxon descriptive statistical analysis, confirming the hypothesis of effectiveness with the educational intervention.

Table 2 - Wilcoxon statistical analysis. Rio de Janeiro, RJ, Brazil, 2023.

	N	Average	Standard deviation	Medium	Q1-Q3	Minimum	Maximum	p value
pre-test score	40	4.3	1.4	4	3-5	1	8	
post-test score	40	5.6	1.4	6	5-6	2	8	< 0,0001

It was found that, with the exception of stage 3 PI, all questions showed an increase in the number of correct answers. After the Wilcoxon and McNemar descriptive statistical analysis, the effectiveness of the educational intervention was observed, specifically related to clinical cases related to stage 2 and 4 PI and deep tissue PI.

Table 3 represents the results before and after the educational intervention, focusing on the hypothesis of a significant change in correct answers.

Table 3 - McNemar statistical test. Rio de Janeiro, RJ, Brazil, 2023.

Clinical Case	Pre-test n (%)	Post-test n (%)	p-value*
Question 1 - LP stage 3	32 (80)	32 (80)	0,99
Question 2 - LP stage 2	5 (12,5)	23 (57,5)	0,019
Question 3 - Deep	7 (17,5)	29 (72,5)	0,001

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Tissue LP			
Question 4 - LP stage 4	14 (35)	35 (87,5)	0,003
Question 5 - LP stage 1	34 (85)	35 (87,5)	0,65
Question 6 - LP in mucous membranes	27 (67,5)	29 (72,5)	0,16
Question 7 - Unclassifiable LP	28 (70%)	35 (87,5%)	0,071
Question 8 - LPRDM	27 (67,5%)	33 (82,5%)	0,13

DISCUSSION

The predominance of nurses in the profession stems from the profession's historical formation. This study corroborates the prevailing female nursing practice, which persists today. However, evidence points to an increase in male workers in the profession [14].

The significant representation of resident nurses in this study highlights the integration of these professionals into the teaching model of university hospitals. These institutions contribute to the training and specialization of human resources in the workplace, as they implement practices that encompass health education and foster teaching, research, and outreach [15].

When assessing the participants' professional experience, it was identified that most participants had the shortest experience in the field. Although this result is related to the significant number of resident nurses, this aspect should be addressed from the perspective that PI is a multifaceted problem that requires clinical reasoning and professional experience to conduct appropriate interventions [16-17].

Therefore, it is necessary to develop educational interventions focused on this topic, as it provides opportunities for less experienced nurses to gain training. Furthermore, those with longer professional experience benefit from health education in updating and renewing their professional knowledge[18].

Only one participant had a specialization in skin care, which highlights a shortage of qualified human resources for this common problem with significant health impacts[2].

An educational intervention study aimed to assess nurses' knowledge of various aspects of PI, such as prevention, staging, and assessment. The staging category showed statistical significance after the educational intervention[9]. This finding corroborates the results of the present study, as there was statistical significance regarding the staging of stage 2 PI in both studies.

Still comparing with other studies that evaluated nurses' knowledge about PI classification, nurses presented accuracy rates lower than 90% regarding stages 1 and 2. In the present study, participants obtained similar

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scores, but with improved knowledge about stage 2. It is also worth highlighting the need for training regarding even these initial stages of PI[9-10].

It is important to emphasize that stages 1 and 2 of PI can be confused with Incontinence-Associated Dermatitis (IAD) due to some similarities in clinical findings, although they have distinct etiologies[19].

IAD is defined as a skin lesion caused by exposure to bodily fluids, often associated with urine and feces. Clinical manifestations such as hyperemia and loss of skin integrity are common in IAD and PI[20-22].

Studies conducted to assess nurses' knowledge of IAD and PI have found weaknesses in the assessment of these types of lesions, which can compromise patient care[20-22].

Regarding the classification of PI in stage 4, participants' knowledge was unsatisfactory, unlike other studies[9,11,23]. After the educational intervention, nurses achieved new scores, demonstrating statistical significance, similar to what was observed for Deep Tissue PI.

Therefore, educational interventions in the skin care setting should be promoted in the nosocomial setting to ensure appropriate management in wound prevention, treatment, and rehabilitation[24].

With a correct diagnosis of the staging of a PI, nurses can prescribe and implement appropriate interventions, such as the ideal choice of dressing for treatment and prevention, in addition to adopting measures to prevent further complications and the development of other lesions[3].

Therefore, health education is a fundamental resource to be developed in healthcare institutions. Its contributions include improving the quality of care, promoting patient safety, fostering quality care, identifying technical difficulties, and serving as a forum for clarifying questions for those involved in care, among other positive aspects[5,25].

This study has the limitations of conducting a healthcare intervention in a single healthcare institution, with a relatively small sample, using a single pedagogical or training resource; participants' lack of familiarity or limited proficiency with the online Google Forms tool; the limited assessment of clinical cases based on photographs, while in clinical practice, the identification of pressure injury classification is based on a holistic approach to the patient;

It is suggested that new educational intervention studies be developed to assess injuries in hospitalized individuals using more advanced methodological resources.

CONCLUSION

This study demonstrated an effective educational intervention, demonstrating a higher number of correct answers after the training and high statistical significance, specifically regarding the classification of Deep Tissue Injury and stages 2 and 4 of pressure injuries.

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For nursing practice, this study promoted knowledge about pressure injuries, a context in which nursing is directly involved.

Through this acquired knowledge, participants will be able to develop care through new clinical reasoning, especially regarding the multifaceted stages of pressure injuries.

Consequently, a decrease in the incidence of progression and complications of properly staged pressure injuries is expected, as well as a reduction in the costs of care for individuals affected by this condition.

In this sense, the educational intervention promotes changes in professional practice and represents a powerful tool for use in health education practices, contributing to the improvement of care through the adoption of evidence-based practices.

Furthermore, the methodology applied proved to be a low-cost, accessible, and applicable strategy. Therefore, we suggest its reproduction by other researchers in different hospital settings. We also recommend further studies that expand and develop other methodological approaches for educational interventions to promote greater professional training.

REFERENCES

1. Paula AS, Moraes CR, Bissoni NP, Melo Filho PL, Santos ET, Coifman H et al. Segurança da pessoa idosa no ambiente hospitalar: revisão integrativa. Contribuciones a Las Ciencias Sociales. 2024;17(5):e6336. Disponível em: https://doi.org/10.55905/revconv.17n.5-060

2. Gefen A, Brienza DM, Cuddigan J, Haesler E, Kottner J. Our contemporary understanding of the aetiology of pressure ulcers/pressure injuries. Int Wound J. 2022;19:692-704. Disponível em: https://doi.org/10.1111/iwj.13667

3. Kottner J. Cuddigan J, Carville K, Balzer K, Berlowitz D, Law S et al. Prevention and treatment of pressure ulcers/injuries: the protocol for the second update of the international Clinical Practice Guideline 2019. 2019;28(2):51-58. Disponível em: https://doi.org/10.1016/j.jtv.2019.01.001

4. Agência Nacional de Vigilância Sanitária (BR). Nota Técnica GVIMS/GGTES/Anvisa nº 05/2023 – Práticas de Segurança do Paciente em Serviços de Saúde: Prevenção de Lesão por Pressão. Brasília-DF: ANVISA; 2023. 31 p. [acesso 2025 Abr 10]. Disponível em: https://www.gov.br/anvisa/pt-br/centraisdeconteudo/publicacoes/servicosdesaude/notas-tecnicas/notas-tecnicas-vigentes/nota-tecnica-gvims-ggtes-anvisa-no-05-2023-praticas-de-seguranca-do-paciente-em-servicos-de-saude-prevencao-de-lesao-por-pressao/view.5.

5. Ministério da Saúde (BR). Política Nacional de Educação Permanente em Saúde: o que se tem produzido para o seu fortalecimento? Brasília-DF: Ministério da Saúde; 2018. 78 p. [acesso 2025 Abr 10]. Disponível em: https://bvsms.saude.gov.br/bvs/publicacoes/politica_nacional_educacao_permanente_saude_fortalecimento.pdf

6. Cardoso RB, Paludeto SB, Ferreira BJ. Programa de educação continuada voltado ao uso de tecnologias em saúde: percepção dos profissionais de saúde. Rev Bras Ciências Saúde. 2018;22(3):277-84. Disponível em: https://doi.org/10.22478/ufpb.2317-6032.2018v22n3.35054

7. Maia KLSS, Rodrigues AKSB. Assistência de enfermagem no tratamento de lesão por pressão: revisão integrativa. Rev. Foco. 2024;17(11):e6388. Disponível em: https://doi.org/10.54751/revistafoco.v17n11-2149.

8. Conselho Federal de Enfermagem (BR). Resolução Cofen nº 567/2018. Regulamenta a atuação da equipe de enfermagem no cuidado aos pacientes com feridas. Brasília-DF: Cofen;

2018. [acesso 2025 Abr 10]. Disponível em: http://www.cofen.gov.br/resolucaocofenno-567-2018_60340.html

9. Araújo CAF, Pereira SRM, Paula VG, Oliveira JA, Andrade KBS, Oliveira NVD et al. Avaliação do conhecimento dos profissionais de Enfermagem na prevenção da lesão por pressão na terapia intensiva. Escola Anna Nery. 2022;26:e20210200. Disponível em: https://doi.org/10.1590/2177-9465-EAN-2021-0200

10. Adriani PA, Paggiaro AO, Ferreira MC, Carvalho VF de. Aplicação do pressure ulcer knowledge test em enfermeiros de um hospital de atenção secundária - estudo transversal. Rev. Enferm. Atual In Derme. 2019;87(25). Disponível em: https://doi.org/10.31011/reaid-2019-v.87-n.25-art.480

11. Sousa RC, Faustino AM. Conhecimento de enfermeiros sobre prevenção e cuidados de lesão por pressão. Rev. Pesqui. (Univ. Fed. Estado Rio J., Online). 2019;11(4):992-997. doi: https://doi.org/10.9789/2175-5361.2019.v11i4.992-997

12. Associação Brasileira de Estomaterapia (BR), Associação Brasileira de Enfermagem em Dermatologia (SOBENDE). Consenso NPUAP 2016 - Classificação das lesões por pressão adaptado culturalmente para o Brasil. 2016. Disponível em: https://sobest.com.br/wp-content/uploads/2020/10/CONSENSO-NPUAP-2016_traducao-SOBEST-SOBENDE.pdf

13. National Pressure Ulcer Advisory Panel (US). Online Store: Pressure Injury Photos. Schaumburg, IL: NPUAP; 2023. Disponível em: https://npiap.com/store/ListProducts.aspx?catid=732189

14. Sousa AR, Oliveira MT, Oliveira JC, Reis MCO, Costa MSF, Cerqueira DCG et al. Gênero, Masculinidades e Saúde de Homens: desenvolvimento de uma disciplina curricular no curso de graduação em Enfermagem. REVISA. 2021; 10(1):94-108. DOI: https://doi.org/10.36239/revisa.v10.n1.p94a108.

15. M'batna AJ, Cechinel-Peiter C, Costa MFBNA, Cunha CLF, Debétio JO, Lemos M, et al. Continuidade do cuidado: ações realizadas em hospitais universitários brasileiros. Acta Paulista de Enfermagem. 2025;38:eAPE0003391. Disponível em: https://doi.org/10.37689/acta-ape/2025AO0003391

16. Silva TF, Tristão FS, Echevarria-Guanilo ME, Zillmer JGV, Oliveira CM, Blair IJQ. Cuidados para prevenção de lesão por pressão realizada por enfermeiros em um hospital de ensino. Revista urug. enferm. (En línea). 2023;18(2):e205. Disponível em: https://doi.org/10.33517/rue2023v18n2a8

17. Pereira AS, Bezerra CC, Almeoda ACL, Silva MRB, Souza DRS, Silva KCF. A importância do conhecimento do enfermeiro na prevenção das lesões por pressão em pacientes submetidos à posição prona. Glob Acad Nurs. 2021:e115. Disponível em: https://globalacademicnursing.com/index.php/globacadnurs/article/view/216

18. Dantas MCS, Silva MSL, Santos NCCB, Figueirêdo DSTO, Andrade LDF. Health education in academic nursing training. Espac. Saúde. 2023;24:e894. Disponível em: https://doi.org/10.22421/1517-7130/es.2023v24.e894

19. Macedo GLF, Silva RF, Aquino RG, Farina AMP, Silva FS. Conhecimento sobre dermatite associada à incontinência e lesão por pressão da equipe de enfermagem. Unifunec Cient. Mult. 2021;10(12):1-13. Disponível em: https://doi.org/10.24980/ucm.v10i12.4294

20. Ximenes RRC, Chaves EMC, Girão ALA, Gonçalves MHRB, Ferreira SL, Carvalho REFL. Conhecimento da equipe de enfermagem antes e após capacitação sobre dermatite associada à incontinência. Rev esc enferm USP. 2024;58:e20230272. Disponível em: https://doi.org/10.1590/1980-220X-REEUSP-2023-0272en

21. Araújo TM, Araújo MFM, Barros LM, Oliveira FJG, Silva LA, Caetano JA. Intervenção educativa para avaliação do conhecimento de enfermeiros intensivistas sobre lesão por pressão. Rev. Rene. 2019;20:e41359. Disponível em: https://doi.org/10.15253/2175-6783.20192041359

22. Alcoforado CLGC, Lopes FO, Fernandes RA, Carvalho RLR, Guillen MRS, Ercole FF et al. Conhecimento dos profissionais de enfermagem sobre dermatite associada a incontinência e lesão por pressão. 2019. Reme:

Rev. Min. Enferm. 2019;23: e-1166. DOI: https://doi.org/10.5935/1415-2762.20190014

23. Campoi ALM, Engel RH, Stacciarini TSG, Cordeiro ALPC, Melo AF, Rezende MP. Educação permanente para boas práticas na prevenção de lesão por pressão: quase-experimento. Rev Bras Enferm. 2019;72(6):1646-52. Disponível em: https://doi.org/10.1590/0034-7167-2018-0778

24. Moura VLL, Koller FJ, Santos AR, Batista J, Burdzinski VF. Conhecimento dos enfermeiros sobre o protocolo de lesão por pressão em hospital privado e acreditado. Rev Enferm Atual In Derme. 2021. 95(36):e-021155 Disponível em: https://doi.org/10.31011/reaid-2021-v.95-n.36-art.1231

25. Ministério da Saúde (BR). Agência Nacional de Vigilância Sanitária. Resolução da Diretoria Colegiada nº 36, de 25 de julho de 2013. Institui ações para a segurança do paciente em serviços de saúde e dá outras providências. Brasília-DF: ANVISA; 2009. Disponível em: https://bvsms.saude.gov.br/bvs/saudelegis/anvisa/2013/rdc0036_25_07_2013.html.

Declaration of Conflict of Interest

Nothing to declare

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Authorship Criteria (Author Contributions)

Afonso GA contributed to the conception and/or planning of the study; data collection, analysis, and interpretation; and drafting and critically revising it for intellectual content.

Dias TF contributed to data collection, analysis, and interpretation; and drafting and critically revising it for intellectual content.

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Nunes AS contributed to data collection, analysis, and interpretation; and drafting and critically revising it for intellectual content.

Gomes HF contributed to data collection, analysis, and interpretation; and drafting and critically revising it for intellectual content; and final approval of the published version.

Souza NVDO contributed to obtaining, analyzing, and interpreting the data; drafting and critically reviewing it for important intellectual content; and final approval of the published version.

Costa CCP contributed to the design and/or planning of the study; obtaining, analyzing, and interpreting the data; drafting and critically reviewing it for important intellectual content; and final approval of the published version.

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