



EVALUATION OF AN EDUCATIONAL PROCESS ABOUT PREVENTION OF PRESSURE INJURY¹

Jaqueline Aparecida dos Santos Sokem*
Fabiana Perez Rodrigues Bergamaschi**
Elaine Aparecida Mye Takamatu Watanabe***
Rogério Dias Renovato****
Adriano Menis Ferreira*****

ABSTRACT

Objective: to describe an educational process on prevention of pressure injury, as well as to Assess in a formative manner this process based on the theoretical framework of Paulo Freire and the Methodology of Problematicization through the Arch of Maguerez. **Method:** a study of educational intervention, with qualitative approach, carried out in a Public university hospital in the city of Dourados, Mato Grosso do Sul, Brazil, during March and April, 2018, and approved by Ethics Committee on Research with Human Beings. The data were collected during the educational meetings, which were recorded, in its entirety, in audio. Subsequently, they were transcribed and analyzed by the content analysis technique, comprehending, thus, the thematic categories, which correlated with the theoretical references of the author Paulo Freire. **Results:** parting from the analysis of the speeches, evaluative writings and field journal notes, the following categories were identified: dialogue; problematicization; research/investigation; and evaluation of educational meetings. **Final considerations:** the adopted educational strategies were successful, it received good evaluations from participants and promoted an environment for discussion in groups, mobilization for the improvement of assistance practices, exchange of experiences and reflection on the subject.

Keywords: Nursing care. Education. Nursing. Pressureinjury. Patient Safety

INTRODUCTION

Pressure injury (PI) is an alteration in the skin, usually near bony prominence regions where unrelieved pressure has occurred. It is also called as (PI) any injury that arises next to medical devices, in which there was also a pressure to the skin or mucosa that was not relieved⁽¹⁾.

This is a prevalent injury among hospital environment, causing complications to patients, impact in emotional, social and even financial sphere of the relatives and causing increased costs of health institutions. In some cases, where this injury is neglected, the patient may even evolve to death due to complications resulting from PI⁽²⁾.

It is estimated at 7% the incidence of PI, with a prevalence of 15%, in the United States of America. In Brazil, a study conducted in the city of São Paulo identified a annual prevalence of 10.1% PI in Public university hospitals^(1,3).

In a hospital environment, the main ones involved in the skin care and body hygiene of the patients are the nursing professionals and, thus, the prevention of skin lesions ends up being related to these servers. However, in order to reduce the incidence of PI, teams must be cognizant on scientific evidences about the subject and this process can only be carried out through continuing educational actions⁽¹⁻²⁾.

In order to reduce the rates of pressure sores in the various health institutions, as well as in individuals in home care, it is necessary to adopt educational activities on the subject, aiming to promote a space for dialogue and updating on preventive measures, systematic evaluation of patients at risk through a predictive scale, such as the Braden Scale, as well as a complete evaluation of patients' skin, focusing mainly on their health promotion⁽⁴⁾.

In Brazil, the Pan-American Health Organization, identifying the difficulty of health teams in dealing with the health needs of the

¹Extracted from the master's dissertation: Educação permanente em saúde no cuidado ao cliente com lesão por pressão e dermatite associada à incontinência, presented to the State University of Mato Grosso do Sul, 2018.

*Nurse, Master, Teaching Hospital of the Federal University of Grande Dourados, Dourados, MS, Brazil. E-mail: jaquelinesokem@ufgd.edu.br.

**Nurse, PhD, Full professor, State University of Mato Grosso do Sul, Dourados, MS, Brazil. E-mail: fabiana@uem.br.

***Nurse, PhD, Full professor, State University of Mato Grosso do Sul, Dourados, MS, Brazil. E-mail: ewatanabe@uem.br.

****Pharmaceutical, PhD, Associate Professor, State University of Mato Grosso do Sul, Dourados, MS, Brazil. E-mail: renovato@uol.com.br. ORCID ID: <https://orcid.org/0000-0002-5595-6216>.

*****Nurse, PhD, Associate Professor, Federal University of Mato Grosso do Sul, Três Lagoas, MS, Brazil. E-mail: aamr@ig.com.br. ORCID ID: <https://orcid.org/0000-0002-4054-768X>.

populations served, began the debate for the construction of a new pedagogical model in which the transformation of practices was one of the focal points. This process culminated in the formulation of National Policy of Permanent Education and with the objective of assisting in the development of the country's health services⁽⁵⁾.

This policy is centered on identifying the health needs of the populations and on the service provided to them, thereby should be aimed at meeting the educational needs of the teams, based on problematization and reflection of the health problems. It should not be a verticalized education, but rather, at all times, should be discussed and rediscussed by the teams in which the dialogue is critical to their implementation⁽⁵⁾.

The assumptions of the National Policy of Permanent Education in Health are directly intertwined with Paulo Freire's theoretical constructs. This Brazilian educator wrote several works in which he emphasized the importance of change in education, in that the students should have a voice and that voice should be heard, based on dialogue, discussion of the problems, the needs of the students and, especially, on respect⁽⁵⁻⁶⁾.

Through all these reflections, the guiding question of this research is: what are the doubts of the nursing staff regarding the care of patients at risk of the development of pressure injuries in a medical clinic? Does this team have knowledge according to scientific evidence to promote the safety of patients at risk of developing pressure injury?

Thus, understanding that pressure injury is a worldwide health problem, the relevance of this study stands out. The objective of this work was to describe a process of teaching about prevention pressure injuries, and evaluate, formatively, this process based on the theoretical framework of Paulo Freire and the Methodology of Problematization through the Arc of Maguerez.

METHODOLOGY

This is an educational intervention study with a qualitative approach, conducted through educational meetings for nursing team

professionals of a medium-sized Public university hospital in the city of Dourados, Mato Grosso do Sul, Brazil, linked to the Unified Health System.

The qualitative research is concerned with identifying the concepts present in history, biography, relationships between individuals, beliefs, values, attitudes, thus seeking to understand the whole scenario of meanings that may be involved in the phenomenon itself. Through it, other factors can be discovered and unveiled, in addition to the commonly perceived findings⁽⁷⁾.

The sample of participants was characterized by non-probabilistic through convenience sample, being invited to participate in the research the professionals of the evening period team of the institution's Medical Clinic, since, in this timetable, the assignments demand for the nursing staff is discreetly smaller compared to other shifts. This sector was selected because of the high prevalence of pressure injuries. The team had a total of eight professionals, in the period of data collection, held in March and April 2018. The invitation was extended to all the team's servers, however, due to the labor demand, seven professionals agreed and managed participate in the study, which totaled six meetings.

The educational meetings were held in the nursing room of the sector and, for development, participants were arranged in a circle or talk wheel, with the goal of facilitating dialogue between them. The first author is server of the institution and acts as a nurse specialist in Nursing Stomatherapy, and, this way, had a previous relationship and bond with the participants, therefore the interest in addressing this theme came from previous experience of the researcher.

The development of educational meetings, as well as the rationale for the selected educational strategies, subsided in Methodology of Problematization with the Arc of Maguerez. This methodology suggests using five stages to the process of teaching-learning, namely: the first stage, observation of reality and problem identification; the second stage, in which the key points about the problem are listed; the third stage, in which the problem theorization occurs; the fourth stage, in which the solution

hypotheses are raised as a group; and the last stage, which is the application to reality, that is, the transformation of the lived reality or application of the identified solutions⁽⁸⁾.

At the first meeting, we sought to define with the team which theme related to the subject of pressure injury that professionals were interested in deepening their knowledge, that is, they had an interest in knowing more about the prevention, treatment or staging from PI. In this meeting, it was sought to also identify the educational needs about PI. The strategy adopted was a question box, with questions elaborated by the participants. In the second meeting, in which the box was opened with the team, it was found that the educational need was about prevention

and staging of PI. These strategies are related to steps one and two of the Methodology of Problematization⁽⁸⁾.

For the third and fourth meetings, it was read in group the guidelines on prevention of PI. In the fifth meeting, it was adopted the dialogued lecture-class strategy, with emphasis on dialogue and reflection about practices, strategies that are in stages three and four of the aforementioned methodology. In the last meeting, we used an educational game, which is found in stage five of this methodology^(1,8). The correlation of the meetings with the steps of Methodology of Problematization through the Arch of Maguerezis displayed on Figure 1.

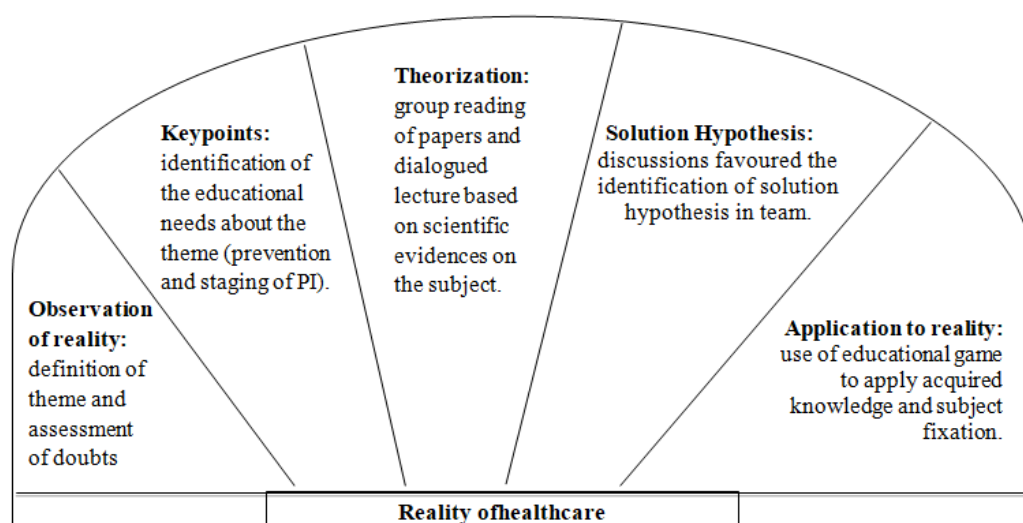


Figure 1. Schematic representation of educational meetings based on the Methodology of Problematization with the Arch of Maguerez

Fonte: Adaptado⁽⁸⁾.

The game was designed while conducting the teaching process based on the scientific evidences on PI, aiming to assist in fixing the content and favoring a joyful learning moment. This game had 12 images on the positioning of the patient in bed, as well as images of devices that were suitable or not to relieve the pressure existing in the institution. The images were collected by the authors, pictures of the researcher herself were also utilized, positioned in the bed. Afterwards, the photos were revealed in duplicate, in size 10 x 15 cm, in order to create a memory game about prevention of PI. Thus, as participants

found the identical images, they should comment on whether the device or the positioning of the image and was appropriate or not to prevent PI.

It is noteworthy that the number of meetings held was defined together with the participants in interconnection with the objectives of the study. The educational meetings lasted an average of 40 minutes, totaling six meetings. For the strategies of brainstorming, dialogued lecture and text study, the theoretical assumptions of Anastasiou and Alves were adopted. For the game, were enacted the guidelines for building

games in health, adopting the steps of assessment of scientific evidence on the subject, theme and goals setting to discuss with the participating PIBic and construction of the game, the last stage not being held, which would be the validation of educational technology⁽⁹⁻¹⁰⁾.

The educational evaluation of the meetings took place at the end of each one of these, as well as at the end of the whole educational course, with a group evaluation of the developed activities. The evaluation method adopted was formative assessment, in which no numbers are used to value the content taught, but rather the opinions, perceptions and other data related to the teaching-learning process. The goal of this assessment is to support the learning of the students, seeking to know the agents involved in the educational process may occur improvements in this process itself⁽¹¹⁾.

The data were collected during the educational meetings, which were recorded and transcribed in full, and analyzed through the content analysis technique. The notes of the field journals were conducted during the educational activity by the non-participating observer, as well as immediately after the completion of the educational meetings. After readings and rereadings of the educational meetings transcript, it was realized the similarities of phrases and, because of it, it was chosen the theme as record unit. The record units came from the collected data themselves. Thus, the thematic analysis of the data emerged. Subsequently, by correlating the transcribed data with the theoretical support of author Paulo Freire, it was possible to identify the thematic categories^(6,12-13).

Before the beginning of the meetings, participants received an explanation of the intentionality of conducting the research, its objectives, its risks, as well as the clarification about the freedom to participate or not. Only after the consent and signature of the Free and Informed Consent Term did the first educational meeting take place.

To preserve the anonymity of the participants, the professionals were identified by the letter P, followed by a number that corresponds to the order of the speeches in the

transcript of the meetings, for example, (P1), (P2). The ethical precepts in this research were respected, complying with the guidelines established in Resolution 466/2012 of the Brazilian National Health Council, in which the subjects were volunteers and consented to participate in the study. The research project was approved by the Research Ethics Committee of the University Hospital of the Federal University of Grande Dourados and, subsequently, was approved by the Ethics Committee in Research with Human Beings of the State University of Mato Grosso do Sul, through its act n° 2.197.369 and CAAE 70593017.8.0000.8030.

RESULTS

Among the participants, two were nurses and five, nursing technician, five of them female and two males. As for working time in nursing, two worked between one and five years in the profession, two worked between five and nine years and the rest worked for ten years or more in nursing. Regarding the level of education, four had graduation, three specialization and no master or doctorate.

The team was questioned whether they had previously participated in educational processes on PI, either formally or informally, and most servers (six) reported having participated in educational actions on the subject. They were also asked how they considered their knowledge of PI, and five professionals considered it good and two, great. All reported knowing how to identify a patient at risk of developing PI.

Through the participants' speeches, four thematic categories were detected: dialogue; problematization; research/investigation; and evaluation of educational meetings.

Dialogue

The speeches highlighted the importance of the exchange of experiences and dialogue in the construction of knowledge. The meetings were conducted in the format of a talk wheel, seeking to establish a close relationship between educator and students. In this format, we used the technical terms of health, but

always paying attention to elucidate them later, trying to adopt words that facilitate the understanding of the students on the topic.

Very simple language right. Although we are from the health field, the technical language is boring. (P2)

What are the best forms of prevention other than decubitus, which is the best known? (P2)

What is the main cause of PI? (P6)

Regarding primary care, what should I do to prevent the patient from developing PI? (P5)

Research/investigation

In the first two meetings, it was identified interest in deepening the theme, especially in regards to prevention of this injury. And for such, reading and the discussion of international guidelines and national guidelines on the subject were selected by the researcher⁽¹⁻²⁾.

Do not use ring or circle shaped devices(1). I learned that a short time ago. (P4)

The following devices should not be used for lifting heels: ring-shaped devices, fluid bags or gloves with water(1). I didn't know about the glove. (P4)

If an individual already has a pressure damage in the sacral or coccyx region or is a wheelchair restricted patient and needs to sit, adopt this position three times a day for a maximum of one hour(1). I did not know that the patient could sit for up to an hour.(P6)

Problematization

During the meetings, it was encouraged that the group debated on the theme, not just listening to educational meetings. The researcher sought to encourage them to always ask about the statements read by the group about the guidelines on PI and, as the meetings progressed, it was identified the evolution of the group in which the actions taken until then began to be debated and reflected by the team.

"I know it can't, but why not?" (P7) [questioning about not being able to be used devices in a ring shape or gloves with water to prevent PI]

Avoid positioning the patient in direct contact with devices such as tubes or probes(1). Yeah, I think you really can't, huh. (P7)

Reposition the patient every two hours to redistribute the pressure. Increase the frequency if necessary(2). Yeah, that's right, because it depends so much on the fabric, the skin, the person. (P1)

Educate wheelchair-bound individuals to perform pressure elevation while seated in the chair within individual capabilities(1). We have had wheelchair-bound patients here, but as I did not have this information, I did not advise on this care. (P2)

Evaluation of the educational meetings

At the end of each educational meeting, it was solicited of the participants to evaluate, formatively, how it was conducted by their perception. It was stressed to the team the importance of this evaluation and that it should be done with sincerity, seeking to improve the educational processes and the researcher as an educator.

It gave us a glimpse of the most pertinent questions on the subject and that prevention is the latest way to treatment. (P5)

I liked it too, we took many questions. I also had a lot of questions. We were doing a lot of wrong things and now we are not going to do it anymore. (P7)

I found it very interesting. It is very good to clarify what can or cannot be done for the patient. (P1)

The intervention proposal was quite plausible, as it addressed the training according to the participants' demand. (P2)

Something that drew attention was that P3, which is usually quieter, in this meeting took part in actively, explaining what was appropriate or not for prevention, demonstrating that he assimilated the content. (Researcher's field diary, meeting 6)

The researcher was concerned about exceeding the duration of the meeting and thought about changing the strategy of the game, but the team itself did not want to modify the strategy, not showing concern about the duration of the meeting. (Observer's field diary, meeting 6)

An interesting fact is that an information disseminated in the previous meeting, has already been PI_t into practice by the group, regarding not using two diapers in the patient, due to risk of increased local heat and sweating. (Observer's field diary, encounter 2)

The educational process was dynamic, carried out in a quite easygoing manner, laughter and curious looks from the team. The group always vibrated at the successes in the memory game. (Observer's field diary, meeting 6)

DISCUSSION

Human beings are "made" through word, through the process of action and reflection of their acts. Human existence cannot be mute, silent. To exist, for the man, would be to pronounce the world, modifying it. The dialogue is considered fundamental to human relationships as well as for conducting the teaching-learning processes, being a central factor for the development of an effective and authentic education⁽⁶⁾.

An authentic education is not made from A to B, by contrast, it is performed from A with B, that is, with the PI_{pils}, being connected to the reality and the world that surrounds them. And this education can exist only by means of a relationship of respect, openness to another and, mainly, dialogue⁽⁶⁾.

In this sense, we sought to hear the participants and meet the team's educational needs. One of the identified doubts was related to the cause of the pressure injury. It is known that PI occurs by virtue of a pressure which was not relieved in the skin and/or adjacent tissues or results from the combination of unrelieved pressure with shear, being common in customers with reduced mobility and sensory perception. In a way, in this question is verified the need of professionals dialoguing and reflecting on their actions so that the prescribed practices make sense for the agents to perform, such as the act of repositioning the patient in the bed⁽¹⁾.

Participants demonstrated interest in knowing what other preventive measures would be indicated for patients at risk of developing PI, beyond the repositioning in bed. The most common preventive measures are: avoid dragging the patient to reposition it,

performing this care with the help of other professionals; perform daily assessment of the patient's skin, documenting the findings; perform the assessment about the risk of developing the PI daily, through a validated predictive scale, recording the information; perform intimate hygiene of the patient immediately after the eliminations; keep sheets clean, dry and stretched; make the hydration of the skin with emollients twice a day; utilize clocks to implement the decubitus repositioning, avoiding, thus, repeating positions before the capillary filling of the tissues; and do not massage the regions at risk of developing PI^(1,14-19).

Some questions of the participants of this research on the prevention of pressure injuries were identified in researches about the subject that had the objective to verify the knowledge of the nursing staff about the PI. Regarding the devices designed to prevent PI, many professionals believe that water-filled gloves are adequate to relieve local pressure and prevent this injury. However, such gloves are not recommended, since this device displayed limitations to properly relieve the pressure⁽¹⁴⁻¹⁹⁾.

In the present research, it was found that the participating team recently learned that ring or circle-shaped devices are not recommended to prevent PI. Similarly, in another study, it was found that professionals believed that these products would be suitable for the prevention of pressure injury. Products in this shape creates areas of high pressure that can cause tissue damage^(1,19).

These findings demonstrate the importance of permanent education in health as a facilitating agent for the investigation and dissemination of scientific evidence. Research and investigation have similar meanings. The investigation would be the beginning of the educational process, that is, by identifying the students' previous concepts about the object in question, is where should the whole educational process start from⁽⁶⁾.

The team PI_t their questions in the question box and these were the starting point for the evidence research on the subject and implementing the education process. Throughout the intervention, it was noticed the

lack of knowledge of the participants of some preventive measures. Other researches have also shown that professionals are unaware of preventive measures of PI for patients confined to a wheelchair, placing this population at risk of developing this injury. These patients have a loss of sensitivity and, therefore, have an even higher risk of developing pressure injuries^(1,16-19).

Regarding the problematization, through the speeches, it was found that the team actually sought to answer their questions about the subject. Problematizing education seeks to encourage the action of learners, recognizing them as thinking and active beings during the process of teaching-learning, based on dialogue. In this education, learners and educators are on the same level, in the sense that, while teaching, the educator also learns⁽⁶⁾.

This problematizing education seeks to encourage students to have attitude towards the object of study. The subject can only learn in fact if, during this act, he is active, questioning what is seen, heard, identifiable or perceivable. The more learners question and are questioned about the object of study, the more they will feel challenged and obliged to “respond” to the challenges posed to them. Once challenged, learners understand that the challenge is a problem to be overcome. In this process, new insights occur and, consequently, the compromise is generated with challenges, that is, with the change of the reality they reside in^(6,20).

Given the affirmations, it was noticeable the progress of the study team during the educational meetings, whereas in the last meetings, the group questioned the contents and the reflection on the practice of care so far performed. It is important that when conducting educational activities, for these to be evaluated by the agents involved aiming to identify the strengths and weaknesses of the

executed teaching-learning process. The assessment should be something continuous and not PInctual, only at the end of a fully ministrated content cycle or for the PIrpose of valuing content. The learning process must also be evaluated by the students^(6,11,20).

A limitation of this study was the team, which had only nursing professionals. In general, this research is characterized as a theoretical subsidy for the implementation of educational activities based on the assumptions of Continuous Health Education, on theoretical constructs of Paulo Freire and subsidized by the Methodology of Problematization. Thus, the intention is to stimulate educational meetings on the subject, as well as contribute to safe care for patients.

FINAL CONSIDERATIONS

The findings showed that the intervention carried out reached a good evaluation by the participating team and that the teaching strategies utilized were effective, since they promoted a space for discussion in groups, the exchange of experiences and reflection on the theme. In this sense, the theoretical subsidies and the methodology used contributed to the construction of a dialogue in service, focused on the practice, favoring the conscious action taking in the current reality.

As a limitation of this research, we highlight the studied population, which was limited to a professional team. However, it is believed that the methodology and teaching strategies implemented in this study can be reproduced for other issues related to health care of patients, either in hospital or home care, as well as other classes of professionals. Further studies are needed to overcome the health promotion difficulties of patients with reduced mobility, in different scenarios and levels of health care.

AVALIAÇÃO DE UM PROCESSO EDUCATIVO SOBRE PREVENÇÃO DE LESÃO POR PRESSÃO

RESUMO

Objetivo: descrever um processo de ensino sobre prevenção de lesão por pressão, bem como avaliar de modo formativo esse processo com base nos referenciais teóricos de Paulo Freire e da Metodologia da Problematização por meio do Arco de Maguerez. **Método:** estudo de intervenção educativa, com abordagem qualitativa, realizado em um hospital público de ensino do município de Dourados, Mato Grosso do Sul, Brasil, em março e abril de 2018, e aprovado por Comitê de Ética em Pesquisa com Seres Humanos. Os dados foram coletados durante os encontros

educativos, que foram gravados em sua totalidade em áudio. Posteriormente, foram transcritos e analisados por meio da técnica de análise de conteúdo, abstraindo, assim, as categorias temáticas, que tiveram correlação com os referenciais teóricos do autor Paulo Freire. **Resultados:** a partir da análise das falas, escritos avaliativos e anotações de diário de campo, identificaram-se as seguintes categorias: diálogo; problematização; pesquisa/investigação; e avaliação dos encontros educativos. **Considerações finais:** as estratégias educativas adotadas foram exitosas, pois receberam boas avaliações por parte dos participantes e promoveram um espaço de discussão em grupo, mobilização para a melhoria das práticas assistenciais, troca de experiências e reflexão sobre o tema.

Palavras-chave: Cuidados de Enfermagem. Educação em Enfermagem. Lesão por Pressão. Segurança do Paciente.

EVALUACIÓN DE UN PROCESO EDUCATIVO SOBRE PREVENCIÓN DE LESIÓN POR PRESIÓN

RESUMEN

Objetivo: describir un proceso de enseñanza sobre prevención de lesión por presión, así como evaluar de modo formativo ese proceso con base en los referenciales teóricos de Paulo Freire y de la Metodología de la Problematización mediante el uso del Arco de Maguerez. **Método:** estudio de intervención educativa, con abordaje cualitativo, realizado en un hospital público de enseñanza del municipio de Dourados, Mato Grosso do Sul, Brasil, em março y abril de 2018, y aprobado por Comité de Ética en Investigación con Seres Humanos. Los datos fueron recolectados durante los encuentros educativos, que fueron grabados, en su totalidad, en audio. Posteriormente, fueron transcritos y analizados por medio de la técnica de análisis de contenido, dejando aparte, así, las categorías temáticas que tuvieron correlación con los referenciales teóricos del autor Paulo Freire. **Resultados:** a partir del análisis de los relatos, escritos evaluativos y apuntes de diario de campo, se identificaron las siguientes categorías: diálogo; problematización; búsqueda/investigación; y evaluación de los encuentros educativos. **Consideraciones finales:** las estrategias educativas adoptadas fueron exitosas, pues recibieron buenas evaluaciones por parte de los participantes y promovieron un espacio de discusión en grupo, movilización para la mejoría de las prácticas de atención, intercambio de experiencias y reflexión sobre el tema.

Palabras clave: Neoplasias del cuello uterino. Promoción de la salud. Salud de la mujer. Prueba de Papanicolaou.

REFERENCES

1. National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel, Pan Pacific Pressure Injury Alliance. Prevention and Treatment of Pressure Ulcers: Quick Reference Guide [Internet]. Emily Haesler (Ed.). Cambridge Media: Osborne Park, Australia; 2014 [cited 2018 Set 02]. Available from: <http://www.epuap.org/wp-content/uploads/2010/10/Quick-Reference-Guide-DIGITAL-NPUAP-EPUAP-PPPIA-16Oct2014.pdf>
2. Ministério da Saúde (BR). Agência Nacional de Vigilância Sanitária. Nota técnica GVIMS/GGTES nº 03/2017: Práticas seguras para prevenção de Lesão por Pressão em serviços de saúde [Internet]. Brasília (DF); 2017. [cited 2019 Set 05]. Disponível em: <http://portal.anvisa.gov.br/documents/33852/271855/Nota+T%C3%A9cnica+GVIMS-GGTES+n%C2%BA+03-2017/54ec39f6-84e0-4c0b-a241-31491ac6e03e>
3. Melleiro MM, Tronchin DMR, Baptista CMC, Braga AT, Paulino A, Kurcagant P. Pressure ulcers prevalence indicators and patient falls incidence in teaching hospitals in the city of São Paulo. Rev. Esc. Enferm. USP. 2015; 49(Esp2):55-59. doi: <http://dx.doi.org/10.1590/S0080-623420150000800008>
4. Soares CF, Heidemann ITSB. Health promotion and prevention of pressure injury: expectations of primary health care nurses. Texto & contexto enferm. 2018;27(2): e1630016. doi: <http://dx.doi.org/10.1590/0104-070720180001630016>
5. Miccas FL, Batista SHSS. Permanent education in health: a review. Rev. saúde pública. 2014;48(1):170-85. doi: <http://dx.doi.org/10.1590/S0034-8910.2014048004498>
6. Freire PRN. Pedagogia do oprimido. 58ª ed. Rio de Janeiro: Paz e Terra; 2014.
7. Taquette SR, Minayo MC. Análise de estudos qualitativos conduzidos por médicos publicados em periódicos científicos brasileiros entre 2004 e 2013. Physis. 2016;26(2): 417-434. doi: <http://dx.doi.org/10.1590/S0103-73312016000200005>
8. Teixeira EA metodologia da problematização com o Arco de Maguerez: uma reflexão teórico-epistemológica - resenha. Rev. enferm. UFPI. [Internet]. 2015 [citado 2019 Nov 14];4(3): 99-100. Disponível em: <https://revistas.ufpi.br/index.php/reufpi/article/view/4173/pdf>
9. Anastasiou LGC, Alves LP. Processos de ensino na universidade: pressupostos para as estratégias de trabalho em aula. Joinville: Editora Univalle; 2015.
10. Silva AKC, Oliveira KMM, Coelho MMF, Moura DJM, Miranda KCL. Development and validation of an educational game for adolescents about breastfeeding. Rev. baiana enferm. 2017;31(1):e16476. doi: <http://dx.doi.org/10.18471/rbe.v31i1.16476>
11. Santos L. A articulação entre a avaliação somativa e a formativa, na prática pedagógica: uma impossibilidade ou um desafio? Ensaio: aval. pol. públ. educ. 2016;24(92): 637-669. doi: <https://doi.org/10.1590/S0104-40362016000300006>
12. Bardin L. Análise de Conteúdo. Lisboa: Edições 70; 2016.
13. Freire PRN. Pedagogia da autonomia: saberes necessários à prática educativa. 43a ed. São Paulo: Paz e Terra; 2011.
14. Gul A, Andsoy II, Ozkaya B, Zeydan A. A Descriptive, Cross-sectional Survey of Turkish Nurses' Knowledge of Pressure Ulcer Risk, Prevention, and Staging. Ostomy wound Manage. [Internet] 2017 [cited 2018 Dez 21];63(6):40-46. Available from: <https://www.o-wm.com/article/descriptive-cross-sectional-survey-turkish-nurses-knowledge-pressure-ulcer-risk-prevention>
15. Soares RSA, Saul AMR, Silva RM, Timm AMB, Bin A, Durgante VL. Educational intervention as a process of knowledge construction in the care of pressure ulcers. Rev. enferm. UFPE on line. 2014;8(6):1658-65. doi: 10.5205/reuol.5876-50610-1-SM.0806201427
16. Mauricio AB, Lemos DS, Crosewski NI, Roehrs H. Conhecimentos dos profissionais de enfermagem relacionados às úlceras por pressão. Rev enferm. UFSM. 2014; 4(4):751-60. 15. doi: <http://dx.doi.org/10.5902/2179769211707>
17. Rocha LES, Ruas EFG, Santos JAD, Lima CA, Carneiro JA, Costa FM. Prevention of pressure ulcers: evaluation of nursing professionals'

knowledge. *Cogitare enferm.* [Internet]. 2015 [cited 2018 Set 28]; 20(3): 596-604. Available from: <https://revistas.ufpr.br/cogitare/article/view/41750/26270>

18. Galvão NS, Serique MAB, Santos VLCG, Nogueira PC. Knowledge of the nursing team on pressure ulcer prevention. *Rev.bras.enferm.* 2017; 70(2):294-300. doi: <http://dx.doi.org/10.1590/0034-7167-2016-0063>

19. Crosewski NI, Lemos DS, Mauricio AB, Roehrs H, Meier MJ.

Knowledge of nursing professionals regarding pressure ulcers in two surgical units – part 1. *Cogitare enferm.* 2015; 20(1):74-80. doi: <http://dx.doi.org/10.1590/0034-7167-2016-0063>

20. Severo VRG, Santos RP, Neves ET, Ribeiro CF. Previous knowledge of caregivers for children with special health needs: a freirian approach. *Ciênc.cuid. saúde.* 2019; 18(3) e46351. doi: 10.4025/cienccuidsaude.v18i2.46351

Corresponding author: Jaqueline Aparecida dos Santos Sokem. Rua Jonas Alves Correia, n. 1795, Bairro Monte Carlo, Dourados, MS, CEP: 79823-850. Dourados, Mato Grosso do Sul, Brasil. Telefones: (67) 99280-3236 e 3410-3097. E-mail: jaquelinesokem@ufgd.edu.br.

Submitted: 10/09/2019

Accepted: 03/12/2019