

Tutoring on open wound dressing in a university hospital: an experience report

Tutoria sobre curativo de ferida aberta em um hospital universitário: um relato de experiência

Tutorial sobre vendaje de heridas abiertas en un hospital universitario: informe de una experiencia

RESUMO

OBJETIVO: Descrever a experiência de uma tutoria sobre curativo de ferida aberta em um hospital universitário. **MÉTODOS:** Trata-se de um relato de experiência de uma tutoria realizada no Hospital Universitário Presidente Dutra, em São Luís-MA, para alunos do 4º período do curso de Enfermagem. **RESULTADOS:** Após a avaliação da estomaterapeuta foi prescrito para o curativo a lavagem do leito da ferida com papaína em pó (2g) diluída em 100ml de Soro Fisiológico à 0,9% e cobertura com papaína gel. Ao realizar o curativo, explicou-se todo o processo, a ordem correta da limpeza, cobertura (primária com gaze estéril com papaína gel e secundária com compressa estéril), organização do carrinho de curativos, uso correto dos equipamentos de proteção individual, além de permitir o auxílio dos alunos na realização. **CONCLUSÃO:** Constatou-se que a tutoria se mostra uma excelente estratégia no desenvolvimento de habilidades pedagógicas e didáticas dos alunos em processo de formação profissional.

DESCRIÇÕES: Cicatrização; Tutoria; Terapêutica.

ABSTRACT

OBJECTIVE: To describe the experience of a tutorial on open wound dressing at a university hospital. **METHODS:** This is an experience report of a tutorial held at Hospital Universitário Presidente Dutra, in São Luís-MA, for students in the 4th period of the Nursing course. **RESULTS:** After the stomal therapist's evaluation, the dressing was prescribed to wash the wound bed with papain powder (2g) diluted in 100ml of saline solution at 0.9% and covered with papain gel. When performing the dressing, the whole process was explained, the correct order of cleaning, dressing (primary dressing with sterile gauze with papain gel and secondary dressing with sterile compress), organization of the dressing cart, correct use of personal protective equipment, besides allowing the students to help in the dressing application. **CONCLUSION:** It was observed that tutoring is an excellent strategy for the development of pedagogical and didactic abilities of students in the process of professional formation.

DESCRIPTORS: Wound Healing; Mentoring; Therapeutics.

RESUMEN

OBJETIVO: Describir la experiencia de una tutoría sobre vendaje de heridas abiertas en un hospital universitario. **MÉTODOS:** Se trata de un informe de experiencia de una tutoría realizada en el Hospital Universitario Presidente Dutra, en São Luís-MA, para estudiantes del 4º período del curso de Enfermería. **RESULTADOS:** Tras la evaluación del estomatólogo, se prescribió el lavado del lecho de la herida con papaína en polvo (2g) diluida en 100ml de solución salina al 0,9% y cubierta con gel de papaína. A la hora de realizar el vendaje, se explicó todo el proceso, el orden correcto de la limpieza, el vendaje (vendaje primario con gasa estéril con gel de papaína y vendaje secundario con compresa estéril), la organización del carro de vendaje, el uso correcto del equipo de protección personal, además de permitir la ayuda de los alumnos en la realización del vendaje. **CONCLUSIÓN:** Se observó que la tutoría es una excelente estrategia para el desarrollo de las habilidades pedagógicas y didácticas de los estudiantes en el proceso de formación profesional.

DESCRIPTORES: Cicatrización de Heridas; Tutoría; Terapêutica.

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Tutoring on open wound dressing in a university hospital: an experience report

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INTRODUCTION

Education during nursing service promotes the development and improvement of professionals involved in the activity, triggering quality care, which integrates the productive and educational process through in-service teaching.¹

In this context, the role of nursing students in tutoring activities is relevant, as the workload in the classroom and in fields of practice is extensive. Thus, the practice of tutoring allows the student who teaches, supervised by the teacher, and who watches the improvement of their teaching-learning process not only in the curricular content covered, but in the scope of teaching and extension through the exchange of knowledge between student, tutor, teacher, university and community, improving their skills and experiences.²

Wound healing is a process that can be divided into four phases: hemostasis, inflammatory, proliferative and remodeling phase. This process begins with hemostasis, which controls blood loss and the invasion of microbes in the injured area, followed by the inflammatory phase, where the migration of neutrophils and macrophages, which cleanse debris and pathogens, to the injured area occurs. The proliferative phase is characterized by fibroplasia, responsible for collagen deposition and the initiation of angiogenesis and, finally, the remodeling phase is evidenced by the migration

of keratinocytes, increasing the resistance to traction of the extracellular matrix and reducing the blood supply to the damaged area.^{3,4}

According to the Standard Operating Procedure (SOP) on skin integrity care at the University Hospital of the Federal University of Santa Catarina, 5 dressing is defined as: “a therapeutic means that consists of cleaning and applying a sterile dressing to a wound, when necessary, in order to promote rapid healing and prevent contamination or infection”.

The care of wounds in the context of nursing requires the determination of their etiology, the monitoring of their evolution and the provision of adequate treatment and rehabilitation, and clinical judgment based on scientific knowledge is essential for evaluation and treatment.^{2,3}

The Federal Council of Nursing (COFEN), through Resolution No. 567, of January 29th, 2018, in Article 3, established that the Nurse in the area is responsible for participating in the evaluation, elaboration of protocols, selection and indication of new technologies in prevention and treatment of people with wounds.⁶

Therefore, it is clear that the nurse must have technical and scientific foundation to identify the history of the patient and his wound, through a detailed anamnesis and daily assessments to monitor the evolution of the lesion. As well as, from the information collected and the evaluation carried

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out, to determine the materials and coverings to be used in the dressings, in order to promote a faster healing and better quality of life for the patient. ²

However, studies report that nurses report not having obtained sufficient knowledge for the care of patients with wounds in graduation, as well as that students and graduate nurses have significant deficits in knowledge about the physiology of the healing process, debridement, exudate, phlogiston signs and about the biofilm, which are fundamental parameters for the decision-making process in wound treatment. ³

Thus, the objective of the present study is to report the experience of a tutoring on the realization of an open wound dressing for students of the 4th period of the Nursing course at the Federal University of Maranhão, as well as to describe the procedure from cleaning to occlusion of the curative.

METHOD

This is a descriptive study, of the experience report type, which presents a tutorial on the realization of an open wound dressing at the Presidente Dutra University Hospital, in São Luís do Maranhão, carried out for students of the 4th period of the Nursing course, from the Federal University of Maranhão, Bacanga campus, during the internship of the Adult Health II discipline of the 10th (tenth) period, which took place between June 10th and 25th, 2019 under the supervision of a teaching nurse.

The proposal to carry out the tutoring arose from the need for educational activities in practice for students in the 4th period of the nursing course, as well as due to the importance of the learning process linked to teaching through the description of the procedure to be performed by the 10th period interns.

Thus, the target audience of the activities were students from the 4th and 10th period of the nursing course in the first semester of 2019.

The process of performing the dressings was explained to the patient. In addition, the students who attended the tutoring

were given an explanation of the entire procedure and were able to assist the tutors in carrying out the dressings during the follow-up days. The patient was treated during the 10 days of internship and the evolution of the wound was duly noted in the hospital's AGHU system.

The patient and the wound were evaluated by the hospital's stomotherapy nurse, where she and the teacher drew up the care plan for the patient and the stomotherapist prescribed the medications, substances and adequate coverage for the treatment.

In the first evaluation, the stomotherapist prescribed mechanical debridement performed with a scalpel and autolytic debridement performed with the use of papain powder diluted in saline solution applied directly to the wound bed and later removed after washing with saline solution, in addition to cleaning the entire skin in the perilesional area with degerming chlorhexidine and primary coverage with sterile gauze and secondary coverage with sterile compress.

After the first week, the procedure was modified, and the papain powder diluted in saline solution was replaced by the use of purified water and polyhexanide (PHMB). The same process of cleaning the perilesional skin continued to be carried out, but PHMB was used in the wound bed in place of powdered papain.

This procedure was repeated for another week until the wound bed was found only with the presence of granulation tissue and its viable edges for closure by first intention.

After three weeks of treatment, the patient underwent wound closure by first intention in the operating room of the university hospital.

RESULTS AND DISCUSSION

The tutoring presented arises from observations and experiences during the Supervised Internship in the ward of the Hospital Universitário Presidente Dutra - HUPD, which is a large and complex sector of the hospital unit, destined to the treatment of patients in the preoperative and postoperative periods of several surgeries.

Before the students performed the first

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dressing on one of the patients admitted to the surgical clinic, an assessment by the hospital's stomatherapist was requested to decide which dressing would be used for that wound. It is an open surgical wound in the mid-abdominal region due to an exploratory laparotomy, a procedure in which a cut is made in the abdomen in order to observe the organs and identify the cause of a certain symptom or change in imaging exams.⁷ As this is an invasive procedure, it was performed in the operating room with the patient under sedation. The wound was not closed by first intention because of the infection foci evidenced by the presence of serous exudate and slough, therefore, the wound must be closed by second intention.

After evaluation by the stomatherapist, washing the wound bed with powdered papain (2g) diluted in 100ml of 0,9% saline solution and covered with papain gel was prescribed for the dressing. Papain, both powder and gel, has bactericidal, anti-inflammatory and chemical debridement action.⁸

Studies report that the chemical, bactericidal and bacteriostatic debridement powers induced by papain have been exactly some of the factors responsible for health professionals in Brazil choosing to use this enzyme. In addition, the indication for the use of papain solutions depends on the characteristics of each phase in which the lesion is found.⁹

Thus, in cases of dry wounds or with granulation tissue, the indication in the literature is that papain concentrations should vary between 2% and 4%, in the presence of purulent exudate and/or infections, these concentrations should vary between 4% at 6% and when abundant necrotic tissue is present, the use of papain at a concentration of 10% is recommended.^{9,10}

When performing the dressing, the entire process of organizing the dressing cart (materials and supplies) was explained to the students, in addition to the Personal Protective Equipment (PPE) used as a mask, disposable coat, gloves (sterile procedure). As the patient was under contact precautions, materials such as saline, degerming chlorhexidine and adhesive tape

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were kept in the patient's ward to avoid cross-contamination with other patients. Finally, the dressing step-by-step was explained to the students, as well as the correct cleaning order (from the edges to the center) and coverage (primary with sterile gauze with papain gel and secondary with sterile compress), and the secondary coverage should be changed whenever there is an excess of exudate to avoid colonization and maceration of the edges or as prescribed by the responsible stomatherapist.

On the first day of dressing 06/10, the lesion presented a moderate amount of slough well adhered to the wound bed, plenty of serous exudate, but there was no foul odor, such findings were always explained to the students so that they could each time more, reliably assess an injury. Diluted papain powder and papain gel were used as a covering until 06/14, where there was an improvement in the amount of slough, which during mechanical debridement (sterile gauze) came off quite easily.

On June 17, the dressing prescription was changed by the stomatherapist, where it remained until the end of the internship period. Papain was exchanged for PHMB (purified aqueous solution – purified water and polyhexanide). PHMB is used for cleaning and moisturizing acute or chronic wounds, debridement of scabs and necrosis, and biofilm removal.⁸ After using the PHMB, it was noted that it was easier to remove slough with sterile gauze, a process that left the lesion with a much more evident granulation tissue, and showing, in approximately 2 weeks, a closer approximation of the edges of the lesion. The patient was followed up at the unit.

As reported by some authors, PHMB proved to be effective in the topical treatment of colonized wounds, providing favorable conditions for the healing process, with a reduction in healing time and a significant reduction in inflammatory signs and colonization/infection.¹¹

These tutoring activities must be carried out frequently by Universities, as this form of teaching is an indispensable tool in the teaching-learning process of students, since the support that this activity provides to

students directly influences the achievement of better results and helps students in several aspects during the study, in addition to stimulating tutors for future teaching. 12

Through the nursing care provided during the supervised internship period, it was possible to observe the interest of fourth period students in learning and performing the dressing on the patient, correlating the theory seen in the classroom with the practice in the internship field, making the experience positive and rewarding.

Thus, it is clear that the improvement in the training of nursing students and the training of nurses to work with patients with wounds is of paramount importance for the effectiveness of the care provided.

Furthermore, the use of active methodologies and the insertion of the learning process through tutorials associated with the practices of professional life and supervised by a teaching mediator who monitors and analyzes the processes and results are essential for professional improvement and for reducing gaps in learning. 2,3

CONCLUSION

For students in the Nursing course, the surgical clinic at the HUPD is an environment rich in specific procedures and clinical findings that add positively to the student's learning process, and in this process, tutoring is extremely important when it

comes to acting in specific procedures, such as performing complex dressings.

The fourth period of the Nursing course at the Federal University of Maranhão is where students have their first contact with the techniques inherent to the profession, including the application of dressings. Tutoring in this first contact is essential so that they can relate theory to practice and carry out such procedures based on scientific evidence. For the intern of the 10th period of the course, the provision of tutoring, not only for dressings, but for various procedures in the surgical clinic, contributes to the improvement of techniques and, principally, based on evidence and carried out correctly.

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