



RESEARCH ARTICLE

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## WEAKNESSES IN THE CARE OF PATIENTS WITH PRESSURE INJURY: PERCEPTION OF NURSES

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### ARTICLE INFO

#### Article History:

Received 14<sup>th</sup> July, 2019

Received in revised form

28<sup>th</sup> August, 2019

Accepted 17<sup>th</sup> September, 2019

Published online 30<sup>th</sup> October, 2019

#### Key Words:

Nursing. Pressureinjury.

Weaknesses in care.

Professional autonomy.

### ABSTRACT

The pressure ulcer, identified as any wound in tissues with prolonged exposure under bone protuberances, has, in the Intensive Care Unit, determining and high-incidence factors to its emergence, being characterized as an indicator of quality of care, emphasizing the action of Nursing in the care. This is a qualitative, descriptive, exploratory research, developed at a public hospital unit, with 16 nurses, which aimed to identify the weaknesses of nurses regarding the care to pressure ulcer, using a semi-structured instrument. The analysis of the results revealed three categories that guided the discussions, obtaining satisfactory data related to care.

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**Citation:** Almeida, Brenawinnie Souza de, Almeida, Francisca das Chagas Alves de, Cruz, Ronny Anderson de Oliveira et al. 2019. "Weaknesses in the care of patients with pressureinjury: perception of nurses", *International Journal of Development Research*, 09, (10), 30976-30981.

## INTRODUCTION

The nursing team has the great responsibility of care, which makes the success and effectiveness of these professionals intimately linked to their knowledge about health. Among the skills applicable to this team, there stands the treatment and care of skin lesions, which, along with the multidisciplinary team, promotes actions with specific and individualized care, taking into account the needs of each case, with the promotion of prevention, assessment and treatment, seen as of utmost importance in the context of treatment of wounds (GALVÃO *et al.*, 2017). Named as complex wounds, tough-to-heal injuries can be acute or chronic, and associate with characteristics such as extensive skin loss, viability of the injured tissues followed by ischemia or local necrosis, aggressive infections and association with diabetes. They can be classified as traumatic wound, complicated surgical wound, necrotizing wound, pressure ulcers currently known as pressure injury (PI), arterial or venous ulcer, diabetic wound, wound form vasculitis and post-radiation wound (CRUZ; NOBREGA, 2016).

PI is considered as any injury caused by prolonged pressure on tissues, generally at bone protuberances. The prolonged hospitalization has intrinsic connection to this type of skin lesion, being, in recent years, important cause in the indices of morbidity and mortality, causing discomfort and impairing the quality of life of affected patients (ASCARI *et al.*, 2014). According to Vasconcelos and Caliri (2017), since the 1990's, the pressure injury has been recognized as an indicator of quality of care in health services in the international and national fields. The Intensive Care Unit (ICU), in Brazil, is considered the reference sector to the incidence of PI with 11.1% and 64.3%, and its prevalence ranged between 35.2% and 63.6%. Smaniotto *et al.* (2012) affirm that the accomplishment of the dressing is priority assignment of the nurse. The accomplishment of the dressing and clinical and surgical methods requires dexterity, and the professional must make the correct choice of material to be used. This process requires skill on about the accomplishment and pathophysiological and biochemical knowledge in the process of tissue healing and repair. According to Marques *et al.* (2013), the treatment of wounds is considered a major public health problem, representing a challenge for professionals and health care system, still requiring the use of human, material

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and financial resources to seek solutions for this problem. Thus, facing the problem concerning the difficulties presented by nurses regarding the care to patients with pressure injury, the development of this study is justified with the aim of promoting the expansion of knowledge of these professionals and consequently the improvement of nursing care to the patient with PI, guided by the following question: what is the perception of the nurse regarding weaknesses in the care and treatment of pressure injuries? This study aimed to verify the weaknesses identified by nurses regarding the care and treatment of pressure injury.

## MATERIALS AND METHODS

Qualitative, exploratory study, developed at three distinct sectors of a hospital institution in the city of João Pessoa/PB in the month of August 2018. The selected hospital and its respective sectors were chosen because it provides direct assistance to patients with imminent risk of developing skin lesions, as well as patients already affected by such lesions, with the prevention and treatment of these injuries as routine.

The sample was composed of 16 nurses from a total of 17, because one was framed in the exclusion criterion. The participants met the following inclusion criteria: being present in the sectors performing their function in the hospital at the time of data collection and carrying out nursing interventions/care pertinent to the care and prevention of pressure injuries. The study excluded nurses who worked in other sectors of the hospital that did not provide direct assistance to pressure injuries, who were not exercising their labor activities at the time of data collection, which were in professional abstention due to vacations and leaves and who refused to participate in the research. Data collection used a semi-structured guide, which contemplated questions relevant to the characterization of the sample and subjective questions related to the object of study, applied in the form of an interview with the professional working in his/her respective sector. The participants were identified by a code pertinent to the professional nomenclature, represented by the letter E (*enfermeiro* – nurse in Portuguese), followed by an Arabic number corresponding to the order of interviews (Ex.: E1, E2). This systematic initiative was to ensure the confidentiality and anonymity of the statements. The interview was recorded with the aid of a device to capture the audio, being subsequently fully transcribed, opting for the transcription after collection, so that the reliability of the data could be preserved.

This was performed in a propitious time and reserved place so that there would be no interference in the professionals' work routine. Data analysis was performed by means of the Content Analysis technique, which consists of a thematic categorization of the content itself inserted in the interviewee's speech by means of systematic techniques and categorical variables. Further methodological approach was performed through the completion of the Content Analysis steps, which consist of: pre-analysis of the collected data, exploration of the material and reliable reading, categorization, and the treatment of the results prepared in the corpus (BARDIN, 2011). The research was performed taking into account what Resolution 466/12 of the National Health Council states, which deals with researches involving humans in force in the country; as well as Resolution 564/2017 of COFEN, which describes the code of ethics of nursing professionals. The project was approved by

the Research Ethics Committee, University Center of João Pessoa, under CAAE 91073218.0.0000.5176.

## RESULTS AND DISCUSSION

Sixteen nurses working in the Red Area, Skin Committee and ICU were interviewed. Of these, 13 (81.25%) were females; regarding the age range, 5 (31.25%) nurses were between 36-40 years and 5 (31.25%) were between 41-45 years. In relation to the time of professional training, 8 (50%) nurses had 6-10 years of profession; regarding marital status, 10 (62.50%) were married; regarding degree, 10 (62.50%) had *latosensu* post-graduation; 6 (37.50%) had worked for 6-10 years in the care to PI. In relation to the nurses' knowledge about the weaknesses in the care to pressure injuries, from the contents present in the discourses, the following categories emerged: 1) Knowledge about pressure injuries: understanding about the concept and staging; 2) The dichotomy of the care to pressure injuries: weaknesses versus potential; 3) Role of nurses in the care to the pressure injury: vision of the professional who cares.

### Knowledge about pressure injuries: understanding about the concept and staging

The transcription and analysis of the content of the research corpus showed that only four nurses managed to define with clarity from the physiopathological metrics of the aforementioned wound. In contrast, the other participants state the cause as a definition of the injury itself, something that departs from the literature relevant to the topic.

*"It is the body weight on the skin for a long time, shear of the bed on the skin, which begins to open the first skin until reaching the bone part" (E2).*

*"In my point of view, the pressure injury is a shear that occurs with the weight of the patient with the body, thus occurring the pressure injury" (E3).*

*"It is an injury of the patient's skin that is in contact with the surface, usually the bed" (E4).*

*"They are injuries caused when the patient spends a lot of time in bed, which begins to produce edema, affecting the skin and starting from the inside" (E11).*

*"It is skin frailty, when there are several types, since no change of decubitus, thus the skin suffers the trauma and forms the injury" (E13).*

*"It is when the patient stays in bed for a long period, such as spending too much time in an ICU, and there is no change of decubitus, and the skin is compressed, forming the injuries, which open and, if not properly treated, will suffer necrosis" (E14).*

Moro and Caliri (2016) define pressure injury as a lesion in the skin and/or tissue or underlying structure, generally occurring on bone protuberances, resulting from isolated pressure or combined with friction and/or shear. On the other hand, Eberhardt *et al.* (2015) state that PI represents the lack of blood supply caused by pressure exerted on this site, breaking

the structure, occurring tissue necrosis, as well as deeper structures, such as fascia, muscles, aponeurosis, cartilage, tendons, bones, cavity organs or any other body structure. Regarding pathophysiology of the pressure injury, Campos *et al.* (2016) say that the effects of the intensity of pressure occur by the concepts of capillary pressure and capillary closing pressure. Capillary pressure exerts a force that moves the fluids out of the vessel, by means of the capillary membrane. The capillary closing pressure or critical closing pressure is when the applied external pressure exceeds the capillary pressure causing the capillary collapse, reducing the supply of blood, nutrients and oxygen to the tissues, causing cell death. Other pathophysiological concept is the formation of the lesion resulting from a series of factors, with the extrinsic pressure as the main one on certain skin areas for a prolonged time. However, there occurs a hypoperfusion in the most superficial layers of the skin, affecting deeper tissues as the ischemia approaches protuberances. Therefore, tissue suffering occurs, resulting in local acidosis, interstitial hemorrhage, lymphatic obstruction and accumulation of metabolites produced by cell death and tissue necrosis. The next event is the decrease in fibrinolytic activity, occurring deposit of fibrin, obstructing the interior of vessels, accentuating local hypoperfusion (LUZ *et al.*, 2010). Malagutti and Kakihara (2014) affirm that the prolonged pressure exerted on the skin is crucial for the development of the lesion, because it occludes the blood flow in the capillaries of soft tissues, subsequently leading to hypoxia and evolving to necrosis, if this pressure is removed or relieved.

Analyzing the knowledge relevant to the definition of pressure injury, the nurse who directly takes care of the wound must have scientific support to evaluate, classify and treat the skin injury. In relation to the verification of the staging at the time of the interview with the study participants, the professionals have difficulty to demonstrate the relevant characteristics of each category of worsening of the pressure injury, which represents a worrisome finding with great epidemiologic importance, in view of the participation of the nurse as professional responsible for decision driving and making in the care to the PI.

*"In degrees, 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup>" (E5).*

*"Degrees 1, 2, 3 and 4, we usually take a look, because before the wound appearance, which is while it has no degree, the skin already begins to become hyperemic, so we already take a greater care of it" (E6).*

*"Degrees 1, 2, 3 and 4" (E9).*

*"There are lesions of degrees 1, 2, 3 and more" (E13).*

*"Stages 1 through 4" (E16).*

*"It can be classified in up to 4 degrees. Degree 1 affects part of the epidermis, the skin has certain integrity, but is already with certain fragility, and that place is already experiencing some suffering. Degree 2 already has a rupture, there is bleeding and the dermis is affected. Degree 3 already affects some tissues and there may be or may be not necrosis, granulation tissue and fibrin and there may also be a skin lesion with no rupture, but the skin is already in a well*

*advanced stage of ulcer, but has no rupture, with deep tissue injury. And the degree 4 affects bones and tissues, more prevalent in pressure injuries in the sacral region that affects tendons and bones, with necrosis" (E15).*

The National Pressure Ulcer Advisory Panel (NPUAP (2014) is an independent non-profit professional organization dedicated to the prevention and management of PI, which classifies pressure injuries as follows:

- **Stage 1 PI:** Intact skin with a localized area of non-blanchable erythema, which may appear differently in darkly pigmented skin.
- **Stage 2 PI:** Partial-thickness loss of skin with exposed dermis. The wound bed is viable, pink or red, moist, and may also present as an intact or ruptured serum-filled blister. In this lesion, the adipose (fat) and deeper tissues are not visible.
- **Stage 3 PI:** presents total loss of skin thickness in which adipose (fat) is visible. The granulation tissue and epibole (rolled wound edges) are often present. Slough and/or eschar may be visible.
- **Stage 4 PI:** Full-thickness skin and tissue loss with exposed or directly palpable fascia, muscle, tendon, ligament, cartilage or bone. Slough and/or eschar may be visible. Epibole (rolled edges), undermining and/or tunneling often occur. Depth varies by anatomical location.
- **Unstageable LPP:** If the slough or eschar covers the extent of tissue damage, the measurement of the extent of tissue damage cannot be made. The stage can be confirmed only by removing the slough or eschar.
- **Deep Tissue PI:** Intact or non-intact skin with localized area of persistent non-blanchable deep red, maroon, purple discoloration or epidermal separation revealing a dark wound bed or blood filled blister.

#### **The dichotomy of the care to pressure injuries: fragilities versus potentialities**

The analysis of the nurses' speeches answering the questions: "how do you consider the nursing care to pressure injuries nowadays?" and "have you considered the current treatment of pressure injuries satisfactory?" showed that, in addition to the main weaknesses mentioned, such as inputs and quantitative/sizing of professionals, the participants also pointed out potentialities, which were reported as improved nursing care and its respective therapeutic measures, which, when chosen correctly, promote improvement in care. Such statements are highlighted in the following discourses:

*"Everyone knows the guidelines and what we need to do, but unfortunately we still lack the provision of this type of care. Although we currently have many resources in terms of specific material to avoid the appearance of this injury, unfortunately, due to lack of professionals or will, we are unable to eliminate it, and we could be minimizing this problem" (E1).*

*"It is currently focused on... the wounds, due to their high cost, the financial part of institutions, so they are more careful in this issue. The nurses themselves, as the roster*

*is very scarce, so there is no time to follow the injuries properly, there is a flaw in this requirement of the nurse. But, according to what we can do, we follow it up, taking measures, observing whether it has evolved or involved, throughout time we can assess, but it is not very precise "(E2).*

*"It has improved in a large percentage, because we, nurses, have observed that prevention is much better than treatment, because they are expensive treatments, and we know some cases are preventable, we only have to change decubitus, hydrate and make a decompression no matter how severe it is "(E15).*

*"It is not good, it still need to be further improved, because it is a public body, our work is limited due to precariousness of specific material for the dressing" (E6).*

*"Yes, when you use the resources correctly, we can get a good result and our goal is not to treat, but to prevent by the various types of interventions we can do" (E1).*

Moreover, concerning fragility, Mororóet al. (2017) state that the nursing management is articulated between managerial aspects, in which it develops actions for the organization of health care work, bringing focus on the care needs, which are determinants of cause and effect. As an example, they mention that the appropriate personnel schedule directly affects the quality of the integral care, resulting in care improvement or deficit, when not appropriate. Visibly one of the problems listed by the population part of the study sample lies in the availability of professionals who take care directly of the lesions, sometimes making the care unsatisfactory. Accordingly, the importance of the service in providing adequate support in the material management is closely linked to effective assistance. The lack of inputs is considered a relevant factor for the non-resolution of cases of pressure injury, as well as for limited prevention. Considering the nurses' statement, they base on suitable material management and problem solving as variables linked to the excellent care performance and improvement in clinical, evaluative and therapeutic work of injuries, potential solutions aimed at improving the care in the context of the PI. Thus, the material management is a process in which occur planning, implementation and control more efficiently and economically. (NASCIMENTO et al., 2016).

Nevertheless, the potentialities also stood out, such as improved nursing care, which, for Tavares et al. (2018), requires nursing professionals' action to be performed with knowledge, skill, competence and, above all, the desire to be available, seeking to achieve the expectations of customers and the desired quality of care. The continuous improvement of service should be determined as a dynamic process, a relevant and essential factor for the satisfactory outcome, as well as the lack of this, indeed, is also one of the causes of the worsening of the patient's condition. Therefore, the therapeutic measures also stand out, which, for Bernardes and Jurado (2018), promote improvements in care when applied correctly. Even though the amount of inputs is not satisfactory, it is possible to apply them and obtain the expected result, especially when the nurse engages in caring and offer systemized and focused actions for the operative and therapeutic focus of PI. For this,

the treatment and prevention of PI, according to Oliveira and Santos (2018), require individualized attention and scientific background, with decision-making regarding the range of action options.

**Nurse' role in the care to the pressure injury: point of view of the professional caregiver:** Regarding the nurse's work, the analysis of the speeches showed that most interviewees demonstrate that satisfactory care relates to professional training and specialization, which, when missing, may compromise the quality of care, with inadequate choices concerning treatment, resulting in poor prevention and/or clearing of lesions. Another conceptual aspect raised by them permeates the issue of nurses' own tasks, which, when entirely performed, bring a good result, highlighting the role of service manager as the main one, putting care and guideline surveillance practices in a correct way.

*"Yes, I think it is essential, very important, not only the treatment issue, but also the guideline, not only for the team, but also for the family, caregivers, who will deal with this patient, it is very important" (E1).*

*"Considering the skin committee, it is, but not in the care, it is scarce, they are not very careful in this issue" (E2).*

*"No, unless you have specialization, a course in the area, we are all still a little bit like that, we do not know very well what to do. Especially with the special dressings, some people change those seven-day dressing every day, or use a collagenase in a patient with a granulation wound in the granulation tissue. So, it is all new in a certain way, people sometimes receive this material and do not know how to use it, I do not think it is satisfactory"(E5).*

*"The guidelines, guidance and follow-up could improve, due to the lack of materials in the sector, materials for coverage, which hinder follow-up" (E2).*

*"In general, yes, when you have technology, appropriate dressings, when you train your professional to understand the injuries, to learn to classify them and use the best material available to treat these injuries, thus becoming effective" (E8).*

*"There could be improvements in the guidelines because preventing is cheaper than treating, because preventing benefits the patient and even the hospital financially, besides allowing for the patient's return to home without any injury, even with a long stay in a bed, that is a gift"(E3).*

Joaquim et al. (2017) emphasize that the care instigates protection, determining the other as preciousness, taking care to preserve the citizen's healthy potential. In this way, when the nurses provide care, they must place themselves, donate themselves to the patient, contemplating the patient's personal and social dimensions, so that their sole purpose is to solve his/her problems, and must perpetuate themselves in any area, not differing in the care to pressure injuries. The nurse's care to the PI is strictly necessary and fundamental, requires dexterity and shrewdness, the team must be connected and running a

multidisciplinary work, with continued attention from the particularities of each patient, respecting their limits and pretensions, putting into practice a well prepared care plan, transfiguring a quality assistance (BENEVIDES *et al.*, 2017). The strategies outlined vary from prevention to treatment, and the nurse has the autonomy to design them in the best way, with individuality to each case. The nurse's decision is crucial for a good expected result, among which stand out the protocols of prevention; early treatment of skin; education programs for patients with risk of PI; coverages; debridement; surgical treatments (SOUZA *et al.*, 2016). The nursing professional must hold scientific knowledge sufficient to perform an evidence-based practice. Galvão *et al.* (2017) regret that this knowledge is still poor, remarkable and proven in national and international studies, which is worrisome for the evolution of nursing care, explaining that, the greater the scientific capacity, the better the care. Nonetheless, released as a proposal for the training, aiming to enhance the knowledge and practice of professionals, the Permanent Health Education (EPS - *Educação Permanente em Saúde*, in Portuguese) is a political and pedagogical strategy, whose theoretical bases are autonomy, citizenship, and the subjectivity of the participants and the learning from and to the practice, making it a possibility for the nurse to develop his/her skills in a qualified manner, due to the complexity of his/her work (LAVICH *et al.*, 2017).

### Final Thoughts

From the exposed, the present study was able to extract from participants the weaknesses and potentialities of nurses regarding the care to the PI. Furthermore, it was also possible to observe the dichotomy of such weaknesses considering potentialities, making the study more relevant, reinforcing the importance of the practice of the field research. The limitations were present during the study development, especially in the collections, taking into consideration the resistance of some participants to accept the proposed interviews. Another limitation relates to the sample population that do not represent nationally the studied class, taking into account that the research was at local level. Also as limitation, we had a shortage of jobs related to the theme, specifically when it comes to weaknesses and potentialities toward the nurse's care, further emphasizing the importance of the study to expand the development and contribution to the scientific community. Based on the research trajectory, the search for knowledge update must be uninterrupted, because it enables effective interventions and autonomy in professional decision-making, as well as launches an alert to service managers regarding the importance of continuous updating and education of the team. However, the study brings a range of benefits to all spheres involved, for both patients, promoting a shorter hospitalization time, as health institutions with the reduces expenses and decreased work overload of the team.

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