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Technologies Applied in the Care Bearer of Wounds

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Research article

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Abstract

Objective: to understand the technologies used in nursing care for wounded individuals in a large hospital in the inland of Bahia, Brazil.

Methods: It is a qualitative, descriptive and exploratory research whose participants were 10 nursing professionals, three nurses and seven nursing technicians. The data were collected through interviews and observation, from March to April of the year 2016. Based on the ethical questions of the research, the collection took place after approval by the Research in Ethics' Committee (CEP), through CAEE number: 56185416.5.0000.0055.

Results: We verified more uses of light and hard technologies in the care of the nursing professionals for the treatment of the bearers of wound.

Conclusion: the results show the need for the nursing's team training, with the purpose of changing the technologies used in the direct care to bearers of wounds and, consequently, improvement in the wounds' healing process.

Keywords: Scarring; Nursing care; Technological development; Stomatherapy

Introduction

Health care technologies include new meanings in health services, mainly due to the impacts that the integration of these practices provides on the problem-solving capacity of health care [1].

From this perspective, health work technologies are classified as mild, light-hard and hard [2]. Light technology is centered on the relationships between the worker and the users, the production of care in a fully integrated way and the management of services, such as the speech of interpersonal understanding, through listening, interest and the construction of bonds [3].

Light-hard technologies are based on structured knowledge of knowing how to do, represented by the health professional who knows how to perform the service with dexterity and technical-scientific knowledge, as well as the clinic, epidemiology and other professionals that make up the team, being enrolled in the way of organizing their performance in the work process [3].

However, hard technology is represented by technological equipment, machines, standards and pre-existing organizational structures for the development of the work process. It is the thinking and acting on health cases, and hard, because it requires a structured and organized know-how, which normalizes and that is normalized. Thus, the interconnection of the three types of technology can produce a quality in health care and care, because it seeks to solve the health problem between user and worker, providing autonomy to enable daily life, producing health and humanization [3].

Nursing care for wound sufferers and technology are interconnected, because nursing is committed to the principles of morals and ethics, laws, norms and theories. However, technology consists in the expression of this knowledge, whether scientific or technical of the nursing team. However, with the advent of the scientific foundation of nursing care in wounds, the recognition of the technological expression of care, both as a process, as a product, as an example, is the various types of dressings that exist today [4].

Nursing is based on the technology of care as an expression of knowing how to value life for its moral, ethical and philosophical support. Nursing actions must ensure care for the human being, and can be classified as technology [5].

In this context, for nursing care, it is important to classify the type of wound. Wounds can be classified as acute and chronic. Acute ostomies are defined as the one that occurred recently, where the skin suffers an abrupt rupture, occurring to interruption of blood flow and beginning of the hemostasis process. Chronic wounds are those where there is a multiple association of factors, according to the biopsychosocial environment that the patient is inserted in Geovani [6].

This study becomes relevant for nursing, because it proposes to improve the quality of life of individuals with wounds, aiming at the better use of available technologies, with the purpose of reducing costs and providing humanization in patient care.

Objective

To understand the technologies used in nursing care for individuals with wounds in a large hospital in the interior of Bahia.

Method

This is a qualitative, descriptive research. The qualitative method is capable of grouping the question of meaning and intention as inherent to acts, human relations and social structures [7]. It was selected for taking as main material the daily speech, apprehended from the discourse of the participants, which is capable of revealing values, symbols and representations, allowing the capture and valorization of subjectivities.

The research scenario was a public hospital, considered large, inserted in the Unified Health System (SUS), of state reference. The participants of this research were nurses and nursing technicians linked to this hospital from Bahia, established as inclusion criteria for those who worked in the production units integrated to the wound center of this institution and consequently performed care for the wound carrier.

In the data collection phase, the privacy of the research participants was maintained, through the non-identification of the name. The participants, when accepting to participate in the research, were identified according to a number in order of conducting the interviews E1, E2 and E3 and so on.

In the data collection phase, appropriate techniques were used for qualitative research: semi-structured interview and observation. The integrations of the two techniques were necessary to better understand the object of study proposed in the research. However, when talking about an interview as a privileged communication and data collection technique, it is highlighted that this is a strategy used in field work, emphasizing the following concept, that above all a conversation for two, or between several interlocutors, conducted at the initiative of the interviewer, aimed at constructing pertinent information about a given research object, using the approach by the interviewer, of topics equally relevant to health sciences [7].

Observation is a technique of data collection to obtain information and uses the meanings in obtaining certain aspects of the reality investigated, not only in seeing and hearing, but also in examining facts or phenomena that one wishes to research [8].

With the purpose of assisting in the analysis of the data and understanding the participation of the interviewees in the research, a picture was constructed with the information found and the statements of the research participants. At the end of the process of categorization of the interviews, four categories and six subcategories appeared, according to the statement picture:

Categories	Subcategories
Light Technology	Subcategory I - Light technology used in the care of wound carriers.
Hard Light Technology	Subcategory I - Heavy light technologies used in the treatment of wound carriers.
	Subcategory II - Light hard technologies, related to the knowledge of professionals for the treatment of wounds.
Hard Technology	Subcategory I - Hard technologies used in the use of wound patients.
Facilities and Difficulties in the Use of Health Technologies	Subcategory I – Facilities in the use of health technologies in the care of patients with wounds.
	Subcategory II - Difficulties in the use of health technologies.

Table 1: Distribution of categories and subcategories.
Source: field research

In the research, in all stages, it met the requirements of Resolution Nº. 466/2012 of the National Health Council (CNS), related to ethics in research, which establishes criteria on research involving human beings, rights and duties, justice, veracity and fidelity [9]. Data collection occurred after the approval of the project by the Research Ethics Committee (CEP) of the State University of Southwest Bahia (UESB), through the CAEE number number: 56185416.5.0000.0055 (Opinion 1,659,953).

Findings

The participants of this research were 10 nursing professionals, distributed among females and males, with prevalence for females.

The age of the participants was between 25 and 40 years. The interviews were conducted in the production units connected to the wound nucleus of this hospital, such as: trauma room, emergency room, medical clinic and surgical clinic. The participants of this research were: two nurses and a nursing technician from the trauma room, one nurse from the surgical clinic, three nursing technicians from the emergency room and three nursing techniques from mixed and surgical clinics. The results found are convergent with the authors Busanello, et al. [10], because it found that most of the participants were nursing technicians, working in direct care to patients with wounds.

The organization of the data and the floating readings allowed four categories and six subcategories to emerge through content analysis, according to the results described below:

CATEGORY I: **Light Technologies**
Subcategory I: Light technology used in the care of wound carriers
After analyzing the data, the following statements were identified about the use of light technology in wound care by the nursing team, highlighting the use of light technology by only two participants of the research, as reported below.

[...] is to know how to listen [...] the patient. (Ent. 1)
[...], from speech [...]. (Ent. 5)

CATEGORY II: Light hard technologies
Subcategory I: Mild harsh technologies used to treat wound carriers
In the statements, the research participants noticed more the use of the use of the products, with the use of pielsana-type products, ointments, hydrocolloids and special coverage for treatment in patients with wounds, that is, the nursing team used more light technology in care, according to the expression of the participants and the observation performed.

Pielsana products, ointments and hydrocolloids. (Ent. 2)
Dressings, types of special covers etc. (Ent 3)
[...] and performed the dressing aseptically, occluded with appropriate product for the type of wound, [...]. (Ent. 7)

In another observation, the research participant reassured the patient about wound healing and applied the cover, also employing scientific knowledge when caring for the wound, that is, she used the light hard technology in care. The choice of the type of product to be applied to the wound depends on the classification of the lesion and the phase in the wound healing process, this requires the nursing professional scientific knowledge to use appropriate wound treatment.

Subcategory II: Light hard technologies, related to the knowledge of professionals for the treatment of wounds
In the interviewees' statements, related to the knowledge of professionals for the treatment of wounds, we can see the use of the Systematization of Nursing Care (NCS), that is, the

use of some stages of the nursing process: anamnesis, the execution of nursing care and the registration.

The anamnesis, [...] and the record. (Ent. 4)
The anamnesis where the patient reports how and when the injury occurred, [...], the records, nursing care and the dressing. (Ent. 5)

CATEGORY III: Hard technologies
Subcategory I: Hard technologies used in the use of wound patients
The participants of this research mentioned in the statement the use of technologies used in the care of wound patients:
"[...] describe all procedures after performing the procedure. [...]. (Ent. 2)"

CATEGORY IV: Facilities and difficulties in the use of health technologies
Subcategory I: Facilities in the use of health technologies in wound care
In this category, the facilities in the use of technologies in the care of the carrier of wounds were identified:
"[...] the ease is to perform the dressing and talk to the patient. (Ent 5)"

Subcategory II: Difficulties in the use of health technologies
In this category, the research participants pointed out the difficulties experienced in the use of technologies in the care of wound patients, such as pain when performing the procedure, lack of products, time of the professional and a Systematization of Nursing Care (SAE) destined to care.

The greatest difficulty is the complaints of patients such as pain when performing the dressing. (Ent. 1)

Difficulty in making the dressing when you do not have the products available [...]. (Ent. 2)

The difficulties are many, lack of dressing material, time to better attend patients. (Ent. 3)

The worst difficulty in caring for patients with wound [....] it is the development of a care plan for this patient because it depends on the nursing team and the facilities are the diversity of medication [...] the SAE and the record in the medical records. (Ent. 5)

Discussion

CATEGORY I: Light Technologies
Subcategory I: Light technology used in the care of wound carriers
In these feeling units, the research participants mentioned that it is knowing how to listen and talk to the patient, as a strategy that helps in the care of the wound carrier. In this context, there is little use of light technologies reported by the research participants. In the literature found, it emphasizes the need to value the use of this technology in the production of care, through qualified listening and the provision of other resources available in the care process, for which the nursing team is of fundamental importance with the purpose of strengthening and qualifying it [11].

During the observation technique, it was found that the research participant, when performing the dressing, maintains the dialogue with the patient during the procedure, that is, it is perceived at this very moment the use of light technologies in the care of the patient with wound. In another observation, the interviewee, when addressing the patient cordially, questions how it occurred to the evolution of the wound and how long it was with the wound without treating, explaining what would be done and what type of treatment would be used, thus applying light technologies.

In the work process in the care of people with wounds, light technology is of fundamental importance in the nursing care process, because it is through the use of this technology in health that one can know the patient and the factors that are contributing to the delay of wound healing. The results obtained state that nursing care should be adequate to the specificity of each wound, requiring special conducts by the nursing professional who provides care, such as technical and scientific knowledge trained for follow-up in the wound healing phase [12].

CATEGORY II: Light hard technologies
Subcategory I: Mild harsh technologies used in the treatment of wound carriers
The results found are consistent with other studies, where they state that the nursing team, in the care of wound carriers, gives greater importance to the products that are used during the procedure, that is, the light technology is used more hard in this care process, not emphasizing other intrinsic factors, such as patient age and clinical conditions, which interfere in the delay of wound healing [11].

In the observation made to another participant of the research, it is contact that the nurse collected the nursing history with the patient's companion and, later, performed the dressing in the Lower Left Limb (MIE), with satisfaction. In this observation, we verify the use in both moments of hard light technology, the use of scientific knowledge for the survey of nursing history and with the performance of the procedure technique, which provides a differentiated look of the nursing team about the patient, as an object of their intervention, from the clinical and systematized knowledge about wound care [10].

Studies show that harsh light technologies permeate the care of individuals with wounds through the use of pharmacological materials and coverings used in topical therapy for wound healing [13].

Subcategory II: Light hard technologies, related to the knowledge of professionals for the treatment of wounds

These results found in the statements are convergent with other studies, where they state that the execution and use of a model of care is a form of technology, considered as a way to provide care [1]. However, the care model can be unified as a technological process, and in this context should be classified as a hard light technology, because it is structured in a series of steps or norms that underlie it and guide it with the realization of care.

CATEGORY III: Hard technologies

Subcategory I: Hard technologies used in the use of wound patients

This result identifies the use of hard technology by the research participant in the care of wound patients, stating that it describes all procedures after performing care. Thus, coherence is observed, because in the work process hard technologies in care involve organizational equipment and structures [10]. The equipment is established as devices that allow physical examinations, laboratory tests, images and medications used in therapeutic treatments, which are necessary to feed clinical reasoning and qualify health care. The organizational structures of health services are guaranteed by establishing standards and care methodologies, which direct the systematization of care [1].

CATEGORY IV: Facilities and difficulties in the use of health technologies

Subcategory I: Facilities in the use of health technologies in wound care

The result demonstrates that the ease in nursing work of wound care is in the performance of the procedure, as well as in the conversation he establishes with the patient, during the execution of the dressing.

In this context, it becomes of fundamental importance that the nursing professional use communication through conversation, so that the care provided by him during the procedure is humanized, that is, there is currently the use of light and mild hard technologies. In this context, it highlights the need for the use of mild and mild hard technology in the care of wound patients, with the purpose of making it an active agent in the care process and thus facilitating care by the nursing team [10]. Another study affirms the need for post-graduation in stomatherapy, with the objective of increasing the use of light technologies by nursing professionals during the execution of care [14].

Subcategory II: Difficulties in the use of health technologies

In view of the results found in relation to the difficulties reported by the research participants, in the care of people with wounds highlights: pain, lack of materials to perform the dressing, time and a care plan elaborated for the patient. Pain is a normal symptom present during the execution of the wound care, even due to the destruction of the layers of the skin, which occurs with interruption of the skin.

In a study also identified as difficulty the lack of products available in public institutions for the care of the patient with wounds, leading the nurse to stop the treatment of the wound with the product that was in use and replaced by the one available in the hospital unit, which impairs the wound healing process, because the choice of the use of the product in the wound bed, should be decided according to the characteristics of the lesion, the type of tissue, the amount of exudation, the presence of infection and the prognosis of the patient [11]. This decision in the choice of the product for the care of the wound carrier, is also related to the scientific knowledge that the nursing professional has about the wound, because it is increasingly required of health professionals to demonstrate the quality of care provided to individuals [15,16].

Conclusion

In the care provided by the nursing team, it was found in the treatment of the patients with wounds plus the use of mild hard technologies, proposing as a solution the training of these professionals with the purpose of changing attitudes by professionals who work in the direct care of the patients with wounds.

In this research, in the care of the wound carrier, it perceives at the same time the predominance of the use of two technologies by nursing professionals with wounds: the mild and the hard. Thus, there is a need for nursing professionals to use more light technologies in the process of caring for people with wounds. These results demonstrate the predominance of the hegemonic medical model in the process of caring for at the hospital level. Light technologies in the use of nursing care go unnoticed and they do not recognize it often, as a primordial technology, for the care process.

As for scientific knowledge for decision-making during the execution of procedures in the care of people with wounds by nursing professionals, it was insufficient, thus requiring moments of permanent health education for them.

Regarding the lack of products available in this health institution for wound treatment, according to the evaluation

of the wound performed by the nursing professional becomes a difficulty in the regeneration of the wound healing process, as well as the appropriate evaluation according to the type of tissue found in the wound and the need for the product that should be applied to the wound.

It is of fundamental importance that the health technologies used during care are tools that contribute to the wound healing process together, given the intrinsic and extrinsic factors that interfere in the wound healing process in wound carriers.

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