Social representations of nurses about professional autonomy and the use of technologies in the care of patients with wounds

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Objective. To identify the social representations by nurses about professional autonomy in the care of patients with wounds and analyze their interfaces with the constant incorporation of technologies in this care.

Methods. This is a qualitative research, outlined from the Theory and method of social representations in its procedural approach and performed with 31 nurses. The interviews were submitted to thematic content analysis software NVivo instrumentalized by 10.

Results. The representational content on autonomy is linked mainly to the level of knowledge, power of decision, vocational training and institutional factors. The subjects are positioned favorably to the incorporation of care technologies in professional practice, which involves elements such as cost-effective structure, training, and other resources.

Conclusion. It is concluded that autonomy is configured as a prerequisite for the full use of technology and technology is configured as a facilitator for nurses to become more autonomous.

Key words: nursing; biomedical technology; professional autonomy; Wounds and injuries; psychology, social.
Representaciones sociales de los enfermeros sobre la autonomía profesional y el uso de tecnologías en el cuidado a personas con heridas

Objetivo. Identificar las representaciones sociales elaboradas por los enfermeros sobre la autonomía profesional y el uso de tecnologías en el cuidado a personas con heridas, analizando sus interfaces con la constante incorporación de tecnologías en este cuidado.

Métodos. Investigación cualitativa, delineada a partir de la teoría y método de las representaciones sociales en su abordaje procesual, realizada con 31 enfermeros de un hospital municipal de Región dos Lagos, estado de Río de Janeiro (RJ, Brasil). Las entrevistas se sometieron a análisis de contenido temático instrumentalizado por el software Nvivo 10.

Resultados. Los contenidos representacionales sobre autonomía están ligados, sobretodo, al conocimiento, poder de decisión, formación profesional y a factores institucionales. Los sujetos se posicionan favorablemente en la incorporación de tecnologías de cuidado en la práctica profesional, que envuelve elementos como el costo-beneficio, los entrenamientos y otros recursos.

Conclusión. La autonomía se configura como un prerrequisito para la utilización plena de la tecnología y esta se configura como un elemento facilitador para que los enfermeros se vuelvan más autónomos.

Palabras clave: enfermería; tecnología biomédica; autonomía profesional; heridas y traumatismos; psicología social.

Introduction

The practical reality of nurses, especially contextualized in the care of patients with wounds is often permeated by technical conflicts. Despite this professional have higher education supported by the tripod teaching-research-extension, at least in the federal public Brazilian universities, they are often unable to carry out their activities freely in certain health institutions. In some cases, the limitation of the cover and treatment for the lesion is in the medical responsibility or even a plaster inflexible protocols that restrict the nurse performance possibilities. Professional autonomy of the nurses is a complex issue that requires analysis from various theoretical and methodological references. They receive influences of historical, cultural and social processes crossed by the profession. Prejudices and stereotypes related to nursing are seen as a manual performance profession of a religious character and performed predominantly by women. These factors contributed to the devaluation of nursing as a profession in its path and development.1

Conceptually, autonomy is associated with the notion of freedom as self-determination, choice or absence of interference. It is understood that...
the process of construction of autonomy implies the possibility of nurses set care priorities. Therefore, it requires competence and freedom to make informed choices among the possible options. The professional autonomy in the care of wounds is, therefore, a subject of discussion and reflects directly on the quality of nursing care. It is observed that there are fundamental aspects of the construction of autonomy of nurses, such as the knowledge of nursing practices and safety in professional practice. These become disadvantaged with the lack of adequate theoretical and practical training, outdated these professionals and decontextualization of education within the current healthcare system in the country, as the professional autonomy is the result of the expression of scientific knowledge.

Wounds can be conceptualized as any interruption in the continuity of the skin, to a greater or lesser extent, mainly caused by trauma or medical conditions. The wound treatment involves systemic and local aspects, which are preferably developed by the multi-professional team. Over time and the evolution of nursing, the professional autonomy in the treatment of wounds has been an important issue to the understanding by the profession. In recent years, there was a progressive increase in social visibility of nursing functions because of their specialized activities, particularly in the treatment of skin injuries.

An aspect to be discussed within the context of autonomy in the prevention and treatment of wounds is the constant introduction of new care technologies. The care of people with wounds always occurred recurrently in nursing and changes to the compass of the emergence of new technological treatments and seemingly promising, whose goal is to accelerate the healing process and/or promote a higher quality of life to have chronic wounds, even if healing is not the purpose of assistance. From some professionals can be seen as a factor that hinders the fullness of care, especially for those graduates who need to deal with the new. Nursing technology in care to patients with wounds comprises systematized knowledge (scientific and humanistic), which is perform in the act of care. The technology is not just what is tangible and material, but also on the subjective features that guide the work of the professional, ahead of care. Thus, it is relevant to think the term technology as a comprehensive concept that goes far beyond the use of machinery. The technology is a process that involves various dimensions, which results in a product that may be a durable, theory, goods or symbolic products.

Regarding classification, the technology can be mild, soft-hard or hard. The technologies can be classified as mild when referring to relationships, reception, service management, bonds; soft-hard when referring to structured knowledge, as the nursing process; and hard when they involve technological equipment as machinery. Progressively, technology causes significant impact and significant changes in the working world in general, especially in nursing work, especially in the context of clinical care sectors, semi-intensive and intensive. On one hand, the main changes are marked by the introduction of new materials and the increased use of electronic technology, and on the other hand, changes in the forms of work organization and management. The use of these technologies has facilitated the work causing less wear of the workforce, but can also increase stress and tension levels, impairing the health of workers.

Social representations are a form of knowledge, socially elaborated and shared, and practical vision and contributing to the construction of a common reality to a social set. It is to represent socially to assign collective nature of knowledge to something or someone. To these representations, a definition of collective sciences is added, intended for interpretation and elaboration of the real. The representation consists of a set of beliefs, information, opinions and attitudes in a given social object. The Social Representation Theory (SRT) is comprehensive and allows reframing of reality dimensions. This work has as the main question, What are the representational content prepared by nurses about their professional autonomy in the treatment and prevention of injuries and the incorporation of technologies care in this context?
Therefore, the objective is to identify the social representations made by nurses about professional autonomy in the care of patients with wounds and analyze their interfaces with the constant incorporation of technologies in this care. Social representations guide behavior and practices and justify the positions and behavior of individuals. Therefore, the relevance of this study lies in the assertion that the theory of social representations can be used to understand training process of knowledge of a given profession, its technical aspects, and limits of action, as it can structure historical and socio-culturally, and be re-signified by a particular social group, considering the difficulties, dilemmas and the challenges faced by the profession.

Methods

This is a qualitative, descriptive and exploratory study, outlined from the theory of social representations (SR) in a procedural approach. Data collection took place between January and March 2015. Inclusion criteria for this study were nurses who worked in the study setting for at least six months, and who agreed to participate voluntarily and consciously in this research. Exclusion criteria were any nurse who for reasons of removal, vacation, maternity leave or other, did not present willingness to participate.

The study participants were nurses working in a municipal hospital in the Lakes Region of the state of Rio de Janeiro (RJ, Brazil). There was an attempt to reach 100% of the nurses, 50 professionals. Of them, only 31 nurses matched inclusion and exclusion criteria, and an acceptable number to work with social representation given the processual approach. The participation of individuals was optional, and they were invited by a Consent and Informed Form. It was clarified to participants that participation or not in the research would not cause any damage, liens or bonuses to the professional.

The socio-demographic questionnaire and semi-structured interview were applied to identify the profile of the subjects and their representations of their autonomy in the treatment of wounds and the constant incorporation of care technologies in this context. The thematic content analysis was held, which proposes speech segmentations in record units (RU), followed by thematic categorizations, allowing classification and quantification. The operationalization of analysis occurred through software QSR NVivo version 10, which allows gathering, organizing and analyzing content interviews, group discussions, literature reviews, audios, and videos. It does not require prior preparation of the analysis corpus. It can operate and group data that have something in common, enabling to add, modify, merge and cross data.

Results

The subjects were mostly female (90%) between the age group of 25 to 34 years old (39%) and 35-44 years old (39%), Catholics (52%), with a partner (68%) have post-graduation (94%), with institutional action time of maximum 5 years (65%), with the same time of professional experience as a nurse (38%), having personal income less or equal to 6 minimum wages (42%), with only one job (64%), working on weekly working hours of 24 hours (84%) without further training outside of nursing (81%), developing care nurse role at the data collection time (68%) and reporting full access to scientific information (100%). Of 31 nurses, 58% reported having professional autonomy. The result of the analysis instrumentalized by NVivo 10 obtained 573 Record Units (RUs), divided into four categories and meeting 100% of the analyzed
corpus. The categories were identified: Category 1 - Definitions professional autonomy in the context of treating and preventing wound; Category 2 - facilities and difficulties to establish professional autonomy; Category 3 - Image and vocational training for professional autonomy; and Category 4 - technologies and their relationship with the professional autonomy of the nurse. The most significant RRU in each category will be mentioned followed by brackets, the record identification number of participants and their gender.

Category 1. Definitions professional autonomy in the context of treating and preventing wound

This category contains 192 RUs distributed in 47 subjects and equivalent to 33.5% of the corpus. It has the representational content of nurses as their definition of autonomy. The main themes present in this category are professional autonomy of nurses is linked to the level of knowledge and professional autonomy by the power of decision. To have professional autonomy in the care of wounds, nurses say they must acquire technical knowledge and relevant scientific to the coverage. The knowledge, if you do not, you cannot have autonomy. Unfortunately, we took many colleagues who are not so interested in acquiring this knowledge [Participant 6 - female]. Study participants were for the need to seek new knowledge, master the covers, indications, specifications and chemical compositions to be able to perform most care in the treatment and prevention of wounds and then establish professional autonomy in this context. The relationship that I see is that from the moment I know the covers, I have autonomy to work with them and when I do not know I do not have autonomy. From the moment I know the indication and exchange time I have autonomy to work with this coverage [Participant 14 - male].

Category 2. Facilities and difficulties to establish professional autonomy

This category has 151 RUs distributed in 72 subjects and equivalent to 26.3% of the corpus. This category is the main facilitating and inhibiting factors to establish professional autonomy for nurses. Some of these factors relate to the institution, health and nursing staff and the (un) availability of materials. The main issues addressed and had greater representation are valuing dressings committee for updating the nurses, the institution is an intervening factor in the professional autonomy of the nurse, and the autonomy of the nurse in teamwork is not respected by medical interference.

Nurses express how relevant is the appointment of a commission of healing by the healthcare institution so that there is continuous and constant education update in the care of wounds, which makes healing commission and hospital factors facilitating professional nursing autonomy in the treatment and prevention of wounds. Because with the commission of healing we have more training and we are always updating us. So, we can shorten the closing time of a wound [Participant 4 - female]. The subjects clarified the negative influences that the institution can carry on the work of nurses and their team, setting up as an important variable in the context of professional autonomy. Given the subject, the institution may restrict the work of nurses, though profession of class council approves certain behavior/performance. Thus, the institution adversely affects the establishment of professional nursing autonomy. The difficulties come from institutions, which, often, put in against what management wants. The Coren (Regional Nursing Council) gives autonomy to exercise some functions, but the hospital administration says this is not the service of nursing [Participant 4 - female].

It is noted the difficulty in establishing behaviors and take forward decisions to the nursing staff and patient care due to medical interference. I have no autonomy in the patient because sometimes we need to follow the prescription though there is also the nursing prescription. Sometimes there is a clash for our technical expertise; we see it is not that what the doctor is prescribing and have another view. So, we need to convince him on what we think it is [Participant 25- female].
Category 3. Image and vocational training for professional autonomy

This category contains 182 RUs distributed in 54 subjects and equivalent to 31.7% of the corpus. It is the representational content related to the image, professional identity, profile and the nurse’s role in the treatment and prevention of wounds. Also, it addresses the issues that permeate the training and reflecting the autonomy of nurses. The themes highlighted within this category are the distance between theory and practice in an undergraduate degree in nursing and nurse’s image as essential in the treatment and prevention of wounds. The nurses have a large gap between what is learned during the college years and their actual professional practice. In the representations of the participants, the gap between the theory of practice is due to shortages of materials, professionals and training more focused on graduation to the reality of professionals, as the existing training is in many cases largely theoretical. I see much difference because in theory we have the materials, everything works and in practice is very different. We do not have the material, we are not professionals, we have the collaboration of other professionals ... It is very different! [Participant 13- female].

Despite the loss training for the exercise of professional autonomy, nurses reveal the importance of the nurse in the care, treatment, and prevention of wounds. I think the nurse in the care and treatment of wounds is essential. Not because I am a nurse, but he is the main part because he cares more for the patient, he guides more than other professionals and ends up being a reference to the patient [29 Participant- female].

Category 4. The technologies and their relationship with the professional autonomy of nurses

This category has 48 hours distributed in 20 subjects and equivalent to 8.3% of the corpus of analysis. This category has the representations of nurses as the constant incorporation of care technologies in the hospital routine and their relationships with the professional autonomy. The participants of this research are positioned favorably to the incorporation of technologies, provided they receive specific training. The subjects establish relations among the factors care technology, knowledge, information and professional autonomy. I think that with the arrival of new technologies, more information arrives and, from this point of view, we have more autonomy [Participant 26- female].

It is noted that, in their discourse, the nurses reported that holding autonomy is a condition for the full use of care technologies. It is noticed that in the social thought of the group, there is a link between knowledge, autonomy and use of care technologies, which are interdependent factors. Also, because we should use the technology we have to have autonomy [Participant 18- female]. In the data, the authors emphasize the positive attitude of nurses to the introduction of care technologies in professional practice. I think it is very valid [technology]. I think that every hospital should start working with more advanced coverage, specific coverage. Unfortunately, not every hospital uses it [Participant 11 female].

In the representational content of the participants, specific training is needed to use the technology, so that often the use of care technologies is directly dependent on professional training activities. I think it [technology] helps a lot, but I think the use of technology has to be training. Often we have the technology, but we do not have the appropriate and qualified professional to use it. We need to follow this technology, but I think it is important! [18 Participant - female].

Discussion

As evidenced by the research, social representations are considered to be the result of a mental process by which a group reconstitutes the reality that is facing and for which assigns a specific meaning. Therefore, SR is a form of knowledge, and practical vision and contributing...
to the construction of a common reality to a whole social. Thus, represent socially is to assign collective nature of knowledge to something or someone. It is the interpretation and elaboration of the real.\textsuperscript{13}

As the representations of nurses in the professional autonomy, the survey data show that according to the participants, be autonomous is to have freedom to act. They embody the power of decision on which leads to establishing and demonstrate that this is directly linked to the level of knowledge of these professionals. It is necessary to know to care better, delivering care to confront, where knowledge, power, and autonomy if they intend to release the human to the chains that keep them from achieving possible actions.\textsuperscript{21} One of the major obstacles to the professional autonomy of the nurse, according to participants, is interference from other professionals, especially doctors, in the care provided by nurses in hospitals. Participants refer not have full autonomy in the care of wounds in the study setting by the tension that persists between the physician and the nurse. During the organization's history of health professions, there was a medicine institutionalization process as legal holder of knowledge in health and central element of the care act.\textsuperscript{22} Excessive interference in medical nursing care and the difficulties in the relationship between the team, both experienced daily result in physical and psychological wear nursing, compromising the health of nurses worker and consequently the assistance they give.\textsuperscript{23}

In the representations of respondents, a facilitating factor for their autonomy is the implementation of a committee of dressings. The establishment of a curative committee is the responsibility of health institutions and aims to reduce, prevent and treat the wounds; besides being responsible for the training and updating of professionals, development of protocols and tools for assessment of wounds to monitor the measures taken and their responses to care given.\textsuperscript{24} As for vocational training, participants believe there is a gap between what is proposed as theory and professional practice every day. Nurses, for being involved in human care, require a differentiated training that makes this professional possesses sufficient critical for self-criticism and search for ever better qualified professional practice.\textsuperscript{25}

In this context, it is suggested a need for more practical devices for graduation, as the use of simulation as a teaching method, realization of nursing practices in laboratories and training skills on mannequins.

The nurse, as leader of the nursing team, has an important role in wound healing, since he has more contact with the patient, monitors the evolution of injury, directs and executes the dressing and has greater intellectual mastery of this technique, by virtue of having in his training focused curriculum components to this practice. Under the aegis of the identified social representations, interfaces between professional autonomy and care technology are based on the intersection between them. This intersection brings a solid foundation of training, specific and ongoing training, dressings commission, the presence and availability of human and material resources.

Regarding the need for training in the use of care technologies, participants bring to light soft-hard and hard technologies, such as equipment, sophisticated coverage, and institutional protocols, to the detriment of soft technologies that are also part of the work of nurses.\textsuperscript{11} The technological innovation processes in health have been established as a significant problem due to the increase in the impact that generates costs on training and upgrading of human resources. On the other hand, for the participants in this study, despite the high costs, the use of these technologies when done correctly provides great benefit to the assistance provided and, consequently, reduces the length of hospital stay of the patient. In the social thought of nurses, there are associations of medical equipment with nursing care. Such associations try to maintain a balance between the objective and subjective dimension of nursing care, which is mediated by technology. The objective dimension includes the application of structured knowledge and concerns the handling of machinery and interpretation of
information to direct actions during the subjective gains strength from the expressiveness of care.

It is concluded that the representational content on autonomy is linked mainly to the level of knowledge, power of decision, vocational training and institutional factors. The subjects are positioned favorably to the incorporation of care technologies in professional practice, which involves elements such as cost-effective structure, training, and other resources. We conclude that the psychosocial constructs of nurses professional autonomy is configured as a prerequisite for full use of technology and technology are configured as a facilitator for nurses to become more autonomous. This study has limitations as its achievement in only one context and with a limited number of professionals. These limitations can lead to the development of the new multi-center character of research that disproves or reiterate the information contained herein, but in a broader context, being national or international. Therefore, psychosocial expressions of professional nursing autonomy in the prevention and treatment of wounds is a knowledge gap to be explored in greater depth and from various theoretical and methodological points of view.

While potential, this research - which achieved the goal originally proposed - unveiled specific nuances of the knowledge and practices of nurses on their autonomy in the care of patients with wounds not uncovered earlier. With this, health institutions and higher education in nursing, either undergraduate or post-graduate can look into the results gathered in this research to reshape and strengthen their teaching strategies to promote the exercise of professional autonomy of future nurses.

References
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