ABSTRACT

Objective: The objective was to analyze the social representations of nursing students and to identify in their speech elements that influence the promotion of comfort to patients monitored in intensive care. Method: This is an observational, cross-sectional, descriptive-exploratory study with a qualitative approach whose observation of the data occurred in the light of Moscovici's social representations. The chosen technique was the content analysis proposed by Bardin; the software IRAMUTEQ 0.7, alpha 2, was used to facilitate data storage. Results: Fifty-seven (57) nursing students from a private university in Rio de Janeiro who had already attended clinical or supervised curricular internship in high complexity were interviewed, according to the inclusion criteria of the research and, in its majority, components of generation Y. This study revealed that the nursing students consider the comfort of patients in the four possible contexts: physical, environmental, psycho-spiritual and social; they also think that the hard technology in question, the multi-parametric monitor, represents an important partnership in caring for critical patients. Conclusion: However, undergraduate students believe that such technology must not imply the detriment of the comfort; in their opinion, the concomitant existence of both aspects is perfectly possible. It is concluded that biomedical training focused on high technologies in the intensive care environment has given way to humanization and holistic and comforting care, and that new professionals, already accustomed to constant contact with different technologies, respect them, but they consider the care and comfort of the community as a priority.

Keywords: Patient comfort. Undergraduate Nursing Programs. Technology. Intensive therapy.

INTRODUCTION

Comfort, defined as a condition experienced by people who receive measures of well-being, permeates the contexts of physical, psycho-spiritual, social and environmental experience, in which conditions of relief, tranquility and transcendence occur. This is in line with the propositions of Katherine Kocalba’s Comfort Theory, which defines the satisfaction of basic human needs as relief, calm and transcendence, and considers that the state of comfort presupposes absence of concern, pain, suffering, among others, as a cause of discomfort. Thus, the intensive therapy environment, which is champion in discomfort, becomes conducive to the practice of comforting care.

Hospitalization in the Intensive Care Unit (ICU) can lead to an unfavorable clinical condition for patients, and even death. During the hospitalization period, the patient and his family may experience crises related to the discomfort generated by the change in the family routine, the lack of information about the health status, among other factors. Intensive care units emerged from the technological advances originated in the health area that occurred in the 50’s, with the objective of providing continuous attention and assistance with advanced support. The care process started to focus on hard technology, which, according
to Emerson Merhy\(^{(4)}\), is the one in which care instruments, equipment and machines are found, and which must be associated with light-hard technologies, focused on technical-structured knowledge and light technology, based on the relationships that take place in the meetings of subjects that materialize in the act of caring\(^{(5)}\) so as to offer quality care with humanity.

During the experience of tutoring the Supervised Curricular Internship in High Complexity for undergraduate students from the last semesters of academic training in a private university in the state of Rio de Janeiro whose clinical activities took place in ICU of private hospitals in the city of Niterói, the students expressed emotions in their first contact with the intensive care environment, such as fear, fascination, and interest linked especially to hard technology. Glances exclusively directed to these technologies were often observed, making it difficult to understand problem situations and plan nursing actions in favor comfort due to non-establishment of a proper communication relationship with the patient.

Thinking about the comfort of ICU patients, in the different aspects of care and forms, as well as the training of professionals concerned with providing comfort in conjunction with scientific-physiological care, the following guiding questions emerge in this study: What is the perception of nursing students about the comfort of patients under multiparameter monitoring in the ICU? And How do social representations influence the perception of comfort of future nurses in coping with the binomial hard technology-client? In spite of the difficulties and/or limitations for the provision of comforting care, it is necessary to demystify the representations of nursing students about this care, how they understand the phenomenon of comfort for patients using the multiparameter monitoring system. In this context, the social representations of nursing undergraduate students about the comfort of patients under multiparameter monitoring in the ICU emerge as object of this study.

Knowledge is always built through the interaction of an individual or a specific group of people with certain circumstances, as well as through communication and expression of the study subjects, always related to the human interests that are involved in it. This is the proposal of Moscovic’s Theory of Social Representations\(^{(6)}\), and this study aimed to analyze the social representations of nursing students and identify, in their speech, elements that influence the promotion of comfort to ICU patients.

**METHODOLOGY**

A descriptive-exploratory study with a qualitative approach with Social Representations as theoretical basis was chosen to analyze the theme. To expand the possibilities of investigation, the qualitative method was complemented by quantifying the content of the speeches of nursing students for the organization and analysis of the data produced, since qualitative research analyzes the human expressions present in the relationships, in the subjects and their representations\(^{(7)}\).

The qualitative approach was chosen with the addition of quantitative data in the attempt to integrate words and numbers, as quantitative research assesses the regularity of the phenomenon\(^{(8)}\). Qualitative data, on the other hand, provides a detailed description of the phenomena, behaviors, direct quotes from people about their experiences, excerpts from documents, records, recordings or transcripts of interviews and speeches; all these data are richer in details and interactions between individuals, groups and organizations\(^{(9)}\).

The research was carried out with nursing students from the seventh and tenth semesters of a private university, in the municipalities of Niterói and Rio de Janeiro. The study subjects were selected from the classes of practical courses, totaling approximately 110 undergraduates distributed in 3 courses of clinical teaching and 2 of supervised curricular internship. All were invited to participate in the research.

Fifty-seven nursing students duly enrolled in the courses of Clinical Teaching in High Complexity and/or Supervised Curricular Internship in High Complexity, or who had already attended them before, and who developed their practical activities with
critically ill patients under multiparameter monitoring were included in the study.

As exclusion criteria, students who, for personal or logistical reasons, decided not to participate and/or who already worked at that moment or before in the ICU, even if playing another professional role, did not participate in the research because they had a different experience regarding the unit and its practices and this, supposedly, could influence their responses, as well as their training.

In the months from September to December 2018, the research subjects answered a semi-structured interview, with the following questions, addressed to nursing students: “1. What do you think about working in the ICU? 2. What is it like for you to care for a critically ill patient? 3. What do you consider comfort in the context of nursing care? 4. What is it like to care for patients under multi-parameter monitoring? 5. Is there a difference between caring for monitored patients and patients who are not under continuous monitoring? What are these differences, if there is any? 6. Can the use of the multiparameter monitor influence the nursing care provided? In what way? and 7. Describe how you represent the comfort of the monitored patient.”

The interview was conducted by the researcher in a previously reserved classroom and with time for free expression. This flexibility during the interview made it possible to remove or add questions, change the order of the arguments, favoring the expressions of the true thoughts of the interviewee, who was free talk about his favorable or contrary opinions on the topic, without having to stick to the question asked(10).

The interviews were recorded with the Voice Recorder Easy app version 2.5.8 installed on the researcher’s Moto G 5S cell phone, and followed a previously prepared script. They were transcribed and prepared for the analysis of results, which occurred in the months of December 2018 and January 2019. The Interface of R pour les Analyzes Multidimensionnelles de Textes et de Questionnaires was used (IRAMUTEQ), a free and open source software developed by Pierre Ratinaud(11), was used in order to facilitate the organization of the data. This software allows statistical analyses on textual corpus and individual/word tables using functionalities promoted by the statistical software R. It is a tool of information technology often used, especially in research on social representations(11).

The data were analyzed according to the frequency of appearance in the responses and assessed according to the content analysis of the speeches proposed by Bardin(12), with the construction of nuclear ideas through thematic categorization. The approach used was the procedural one, and the representation is a form of practical knowledge and connects a subject to an object; investigating such knowledge implies knowing the references and conditions under which it is produced(7). The Theory of Social Representations is considered a way to scientifically investigate common sense about a given phenomenon, the explanations and interpretations about a specific object that shape the practice.

In accordance with the requirements of Resolution nº 466/2012, the research project was submitted to the Research Ethics Committee (REC) of the Federal University of the State of Rio de Janeiro and of all institutions involved, and it was approved on September 3, 2018, under nº CAAE 91761318.0.0000.5285, Opinion nº 2.871.001. All study participants signed an Informed Consent Term (ICT) and kept a copy of this term, after receiving all the information relevant about the research and the guarantee of privacy, anonymity and right of withdrawal at any time, without any harm for them at any stage of the study.

RESULTS AND DISCUSSION

Of the 57 respondents, 84.2% were female and only 15.7% male, demonstrating the continuity of female predominance in nursing, whose conception of care work(14) consist of constant attention that always aims to improve the well-being of others. The majority were aged between 20 and 35 years (77.1%), as it is common in groups of undergraduates; the youngest was aged 21 and the oldest 54, characterizing a sample predominantly belonging to generation Y, which comprises people born between 1978 and 1995.
Generation Y, or the Millennials, is the one born at the same time when technological developments and globalization began, events that clearly influenced the characteristics, ideals and behavior of these individuals\(^{(15)}\). They are inventive and innovative people, relational workers, with intelligence focused on a collective approach, constantly producing new figures of subjectivity.

The textual corpus was explored by the IRAMUTEQ software in two analyses, corpus 1 and corpus 2, composed of 57 texts each. Corpus 1 was prepared based on questions 3 and 7 of the interview, addressing patient comfort, and corpus 2, based on questions 1, 2, 4, 5 and 6, addressing nursing care from the perspective of the undergraduates.

A total of 1,8292 occurrences of words, forms or words emerged from the analysis of the textual corpus, being 1202 distinct words and 377 of single occurrence. The analyzed content was categorized into 5 classes. The Descending Hierarchical Classification (DHC) presented two subcorpus, in which classes 1 and 5 are directly correlated, while classes 3 and 4 are linked to class 2, resulting in the dendogram represented in figure 1.

**Figure 1.** Dendrogram of the descending hierarchical classification of the textual corpus 1.

The five classes are divided into two branches (A and B) of the total corpus analyzed. The subcorpus A “Knowledge”, composed of class 1 (quality) linked to class 5 (technology), links comfort and quality of assistance to the ability to deal with the hard technology in question. Subcorpus B “Promotion” is composed of class 2 (care) linked to classes 3 (commitment) and 4 (possibility), covering ways to offer comfort to the monitored patient.

The organization of the words presented in the IRAMUTEQ analyzes is directly linked to the answers given to the questions, allowing inferences about the relationship between the classes and their meanings in the students’ speeches. This means that textual corpus 1, whose analysis is expressed in the dendogram, refers to issues directly related to comfort.

From the analysis of the word’s *device* (chi²30.98), *look* (chi²14.94), *need* (chi²14.31), *knowledge* (chi²12.51), *depend* (chi²28.66),
and hospital (chi²19.2), it is inferred that nursing students consider the comfort of monitored patient’s dependent on factors such as the environment and, mainly, the knowledge as an advocate of quality in care. Nurses must have knowledge and skills to care for critically ill patients and use of the specific technological arsenal, for the operationalization of the machines and to adapt them to the needs of those using them(11).

Well, in order to maintain good comfort, you also need to have a good knowledge of this device, how it works and at what time it is giving you some work, some problem to not be offering this assistance with quality. The biggest barrier that we encountered was often the lack of knowledge; many times, we had to call a person who was more familiar with it, so that the proper assistance could be given. (n_30)

Ah I think that if the person does not know, does not have knowledge she will be a little lost about the parameters, there are people who connect a lot in terms of color, and it varies from monitor to monitor, and you end up getting lost, so you have to put your face and study and stay tuned on this issue that each company will have a standard, and pay attention to the information it is showing on the monitor, not just being stuck in colors, because there is variation, and you can make mistakes because of that. (n_24)

The above reports demonstrate examples of thoughts and situations expressed by the students regarding the technical-scientific knowledge necessary for the provision of comforting care to critically ill patients, as well as the awareness of the importance of this knowledge for the work activities of nurses in intensive care.

The analysis of the subcorpus B showed the words close (chi²22.96), important (chi²13.3), disease (chi²11.81) and care (chi²11.14); monitored (chi²20.95), technique (chi²16.34), thing (chi²15.39) and promote (chi²12.84); feel (chi²34.24), try (chi²28.45) and provide (chi²23.87), suggesting that the nursing students understand the comfort of the monitored patient as something possible to offer and that multiparameter monitoring helps in this process.

I think that, in most cases, comfort is well provided by the team. In terms of trying to relieve pain as much as possible in the case of ICU patients. The possible and the impossible is done to make him comfortable in that situation, even if he is not conscious. (n_07)

It is possible, comfort is possible because, we will, in fact, so, it may be that we are not 100% effective in providing comfort for this patient, but I think we can do a lot, even if he is monitored, with this equipment. (n_21)

The excerpts of the interviews presented make it clear that the undergraduates prioritize comfort and comforting care for patients, even though the patients have to bear with all the inconveniences caused by the devices.

The analysis of the corpus 2 focused on nursing care from the perspective of the undergraduates. A total of 13299 words emerged, 1087 distinct and 468 of single occurrence. The DHC produced two subcorpus, in which classes 2 and 5 are directly correlated, while classes 3 and 4 are related to class 1, resulting in the dendogram represented in figure 2.

The analysis of the dendogram revealed five classes divided into two branches (A and B), with subcorpus A “Hard technology”, composed of classes 3 (“monitoring”) and 4 (“differences”) linked to class 1 (“attention”), denoting the specificities of intensive care and of patients under multiparameter monitoring and patient not under such care. In subcorpus B “Challenge”, we have class 5 (“environment”) directly linked to class 2 (“complexity”), covering the emotions of the nursing undergraduates in the complex work carried out in the intensive care environment.

The words that emerged from the subcorpus A “Hard technology” were: people (chi²29.02), speak (chi²24.54), feel (chi²22.46) and turn (chi²21.88), monitor (chi² 37.07), show (chi²31.87), cause (chi²24.61) and believe (chi²21.02), give (chi²45.28), observe (chi²34.67), parameter (chi²31.58) and sign (chi²28.2). They evidenced the interaction of the students with the machines. The undergraduates understand that the monitoring device can contribute to their work and be paramount in patient care. Technological care requires that professionals have the appropriate knowledge to handle the machines and to interpret the information generated by them, thus corroborating the perceptions described by
the undergraduates, as long as there is awareness that there is a possibility of failures, and that these failures can put lives at risk\(^{(14)}\).

**Figure 2.** Dendrogram of the descending hierarchical classification of the textual corpus 1.

![Dendrogram](image)

**Source:** IRAMUTEQ analysis, Braun, 2019.

The excerpts from the speeches of the students show their concern in relation to the reliable expression of the data presented by the monitors, since interference from poorly connected wires or maintenance problems may happen.

[... it is not being focused only on the monitor, because many things can interfere between the patient and the monitor, and sometimes the information is not so accurate, so you have to look at the patient’s clinic situation first, whether or not it has to do with what is showing on the monitor, the parameters given, and that's it, avoid looking only to the monitor, always being concerned with the patient in a comprehensive way. (n_03)]

So, I think you need more attention, right, even for you not to disconnect the monitors, and then you suddenly have some change, some destabilization, so you have to be attentive and during the whole procedure checking the monitor to see if something changes, something like that. (n_18)

In subcorpus B “Complexity”, the words that emerged were **care** (chi\(^2\)38.14), **difficult** (chi\(^2\)32.55), **possible** (chi\(^2\)29.39) and **good** (chi\(^2\)28), **area** (chi\(^2\)42.5), **complexity** (chi\(^2\)40.29), **like** (chi\(^2\)34.91) and **high** (chi\(^2\)30.08), which reflect the fear of the undergraduate student with respect to the intensive care environment and the recognition of hard technology as an extension of their ability to care, provided there is satisfactory attention and knowledge as to dealing with the machine and the patient’s clinical condition.

According to the excerpts shown below, the undergraduates demonstrated their concern for the whole, for social and personal relationships, which is one of the characteristics of Generation Y: the comprehensive and conscious look at the complexity of caring for critically ill patients monitored in the ICU, maintaining humanity and dignity in this care.
I think it’s very complex, because it involves several things and not only care, you have to look at the person there as a whole and not just as a patient because, it could be someone in your family, right?... I think it’s complicated because honestly, I don't I know how to deal with loss, I haven’t worked on my psychological to deal with it. (n_22)

I think it is a little complicated, you have to be very careful, it is a patient that demands a lot of attention. And everything has to be done with attention to detail, you can’t miss anything, you have to be extremely careful when it comes to critical patients. (n_25)

Very difficult, complex, and the work is very meticulous, you know, it is the life of the people in our hands, our care, so I think it is very difficult. It is a huge responsibility; I find it very difficult. (n_14)

Considering the ICU as a place where actions are viewed with different approaches, but with the purpose of employing nursing care, seeking protection, promotion and recovery of patients’ health\(^\text{(1)}\), these actions strictly integrate the scientific, systematized, mechanized and specialized model implemented at the bedside, taking into account the high complexity and instability of the patient’s conditions. There is, therefore, a need for reflection on the real sense of the assistance as a form of care, which must be associated to humanization.

**FINAL CONSIDERATIONS**

In view of the content presented in the results and considering the theoretical framework, it is clear that there is a tendency for nursing students to understand comfort despite and beyond the discomfort caused by the multiparameter monitoring system and its devices. The students claim that there are no differences between caring for monitored patients and caring for patients without such devices, except for attributes that are inherent in the condition of the patient who need monitoring, which, according to the graduates themselves, are naturally more serious than those of patients who do not need such technology.

According to the students, with regard to the hard technology in question, the multiparameter monitor is a device that has the function of assisting nursing professionals, facilitating their work in the measurement of vital signs and in the clinical-pathological interpretation of the patient’ condition. Nevertheless, they demonstrate a perfect awareness that the monitor is not so good and that it may even be harmful if the nurse does not know how it works, or which are the desirable parameters and conditions of the patient.

Therefore, the comfort of the monitored patients is represented independently, that is, the nursing student understands that comfort is possible and is something essential in the assistance provided with or without multiparameter monitoring, also taking into account that there are different contexts when thinking and promoting comforting care.

In view of all the considerations here presented, there was a pleasant surprise in noticing that hard technology is not overvalued in the training of these new professionals. The nursing students represented the comfort of the monitored patients as something possible and essential in ICU, not disregarding the security provided by the multiparameter monitoring system, provided it is used correctly and with wisdom.

This finding is opposed to some studies carried out with nursing professionals with varying times of experience in the ICU, which leads us to reflect on the professional training of nurses and the hope for a future with more comforting care in the intensive care environment, when the knowledge of the existing high technology will complement a comprehensive care for patients, considering all of their comfort needs in different contexts.

Based on the findings, we infer that the change in professional behavior reflects the characteristics of this generation that is arriving in the job market, the so-called generation Y or the Millennials. These are young subjects who are accustomed to interact with different technologies, what makes these future professionals not become centered on such technologies. This is different from the previous generation, which experienced technological development in adulthood and thus became enchanted by the novelities.
brought by it, but not always showing the proper skills with the then new tools.

This study is relevant when considering the need of understanding and searching for means to reach the objectives of quality and safety in the care process, through the recognition of the characteristic potential of a new generation of professionals, which is not satisfied with little and, much less, with routines devoid of challenges or compensations.

This research provided us with the opportunity to realize the need for studies and reflections on motivating agents, the best means of incentive and stimulation of the intellectual and energetic potential of this generation for the evolution of nursing as a science.

With regard to teaching, we assume that, when analyzing the curriculum and its contents, as well as the academic maturity of the current generation of undergraduates, who need to have contact with relevant topics involving the technologies of care and comfort, it may be essential to revisit the curricular structure. It may be need to be reorganized with respect to the courses offered with the objective of promoting a better performance and preparation of the future professionals before situations of daily work.

As a limitation of this study, few publications were found about the perspectives of undergraduate students on patient comfort in general. Due to this limitation, the studies brought to the discussion keep their focus on nursing professionals in their work activities, thus not allowing a broad comparison within the universe of the professional still under training.

Nevertheless, it is clear that there is a need for further research and updated publications addressing comfort, mainly related to the perspective of nursing students.

### AS REPRESENTAÇÕES SOCIAIS DE GRADUANDOS DE ENFERMAGEM ACERCA DO CONFORTO DE PACIENTES MONITORIZADOS EM UNIDADES DE TERAPIA INTENSIVA

#### RESUMO

**Objetivo**: analisar as representações sociais do graduando de enfermagem e identificar em seu discurso elementos que influenciam na promoção de conforto aos pacientes monitorizados. **Método**: Trata-se de estudo observacional, transversal, descriptivo-exploratório, com abordagem qualitativa, cuja observação dos dados ocorreu à luz das representações sociais de Moscovici. A técnica escolhida foi a análise de conteúdo proposta por Bardin e, para facilitar a arrumação dos dados, foi utilizado o software IRAMUTEQ 0.7, alpha 2. **Resultados**: Foram entrevistados 57 graduandos de enfermagem de universidade privada do Rio de Janeiro que já cursaram as disciplinas de ensino clínico ou estágio curricular supervisão em alta complexidade, conforme critérios de inclusão da pesquisa e, em sua maioria, componentes da geração Y. Este estudo revelou que o graduando de enfermagem considera o conforto do paciente monitorizado nos quatro contextos possíveis: físico, ambiental, psicoespiritual e social; e que a tecnologia dura em questão, o monitor multiparamétrico, representa importante parceria no cuidar do paciente crítico, porém, não em detrimento do conforto que, para o graduando, é perfeitamente possível em comconibância. **Conclusão**: Conclui-se que a formação biomédica e centrada na valorização da pessoa no ambiente de terapia intensiva vem dando espaço à humanização e aos cuidados holísticos e confortantes, e que os novos profissionais, já habituados ao contato constante com tecnologias diversas, as respeitam, porém consideram prioritariamente o cuidado e o conforto da coletividade.


**LAS REPRESENTACIONES SOCIALES DE GRADUANDOS DE ENFERMERÍA ACERCA DE LA COMODIDAD DE PACIENTES MONITORIZADOS EN UNIDADES DE CUIDADOS INTENSIVOS**

#### RESUMEN

**Objetivo**: analizar las representaciones sociales del graduando de enfermería e identificar en su discurso elementos que influyen en la promoción de la comodidad de los pacientes monitorizados. **Método**: se trata de un estudio observacional, transversal, descriptivo-exploratorio, con abordaje cualitativo, cuya observación de los datos ocurrió a la luz de las representaciones sociales de Moscovici. La técnica elegida fue el análisis de contenido propuesto por Bardin y, para organizar los datos, fue utilizado el software IRAMUTEQ 0.7, alpha 2. Fueron entrevistados 57 graduandos de enfermería de universidad privada de Rio de Janeiro-Brasil que ya habían hecho las asignaturas de enseñanza clínica o práctica curricular supervisada en alta complejidad, según criterios de inclusión de la investigación y, en gran parte, componentes de la generación Y. **Resultados**: este estudio reveló que el graduando de enfermería considera la comodidad del paciente monitorizado en los cuatro contextos posibles: físico, ambiental, psicoespiritual y social; y que la tecnología dura en cuestión, el monitor multiparamétrico, representa importante herramienta en el cuidar del paciente.
Social representations of nursing students about the comfort of patients monitored in intensive care units

9

Cristina, pero, no en detrimento de la comodidad que, para el graduando, es perfectamente posible en concomitancia. Conclusión: la formación biomédica y centralizada en altas tecnologías en el ambiente de cuidados intensivos últimamente ha dado espacio a la humanización y a los cuidados holísticos y alentadores, y que los nuevos profesionales, ya habituados al contacto constante con las tecnologías diversas, las respetan, aunque consideran prioritariamente el cuidado y la comodidad de la colectividad.

Palabras clave: Comodidad del paciente, Programas de Graduación en Enfermería. Tecnología, Cuidados Intensivos.

REFERENCES


Corresponding author: Christie Anne Ferreira de Jesus Braun. Alameda São Boaventura, n.100, sobrado 17, Fonseca, Niterói. CEP: 24120-196. Rio de Janeiro, Brasil. Telefones: residencial, (21) 2612 7987, celular, (21) 99875 6890 E-mail: christieferreira97@gmail.com

Submitted: 20/07/2019
Accepted: 30/10/2020