

The humanization of nursing care facing the use of technologies in the intensive care unit

A humanização do cuidado de enfermagem frente à utilização de tecnologias em unidade de terapia intensiva

La humanización del cuidado de enfermería frente al uso de tecnologías en la unidad de cuidados intensivos

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REVISA

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RESUMO

Objetivo: investigar se a desumanização está diretamente ligada às tecnologias, enquanto instrumentos para cuidar, ou às unidades de terapia intensiva, enquanto ambiente tecnológicos. **Método:** Revisão integrativa da literatura realizada no período de junho a agosto de 2021 nas bases de dados Lilacs, Bireme e Scielo. **Resultados:** Foi realizado uma busca pelos descritores em saúde determinados e após análise sistemática dos artigos foram selecionadas 09 produções científicas que atenderam os critérios de inclusão. **Conclusão:** Sugere-se que sejam estimuladas pesquisas que busquem de forma criativa valorizar a humanização frente ao uso das tecnologias no cuidado ao paciente hospitalizado, pois sabe-se que o ato de cuidar possui representatividade nas diferentes dimensões do ser humano, seja física, psicológica, emocional e espiritual.

Descritores: Unidade de Terapia Intensiva; Humanização; Tecnologias.

ABSTRACT

Objective: to investigate whether dehumanization is directly linked to technologies, as instruments for care, or to intensive care units, as technological environments. **Method:** Integrative literature review carried out from June to August 2021 Lilacs, Bireme and Scielo databases. **Results:** A search was carried out for the determined health descriptors and after systematic analysis of the articles, 09 scientific productions that met the inclusion criteria were selected. **Conclusion:** It is suggested that research be encouraged that creatively seeks to value humanization against the use of technology in the care of hospitalized patients, as it is known that the act of caring has representation in different dimensions of the human being, whether physical or psychological, emotional and spiritual.

Descriptors: Intensive care unit; Humanization; Technologies.

RESUMEN

Objetivo: investigar si la deshumanización está directamente vinculada a las tecnologías, como instrumentos de atención, o a las unidades de cuidados intensivos, como entornos tecnológicos. **Método:** revisión integrativa de la literatura realizada de junio a agosto de 2021 bases de datos Lilas, Bireme y Scielo. **Resultados:** se realizó una búsqueda de los descriptores de salud determinados y luego del análisis sistemático de los artículos, se seleccionaron 09 producciones científicas que cumplieron con los criterios de inclusión. **Conclusión:** Se sugiere incentivar investigaciones que busquen creativamente valorar la humanización frente al uso de la tecnología en el cuidado del paciente hospitalizado, ya que se sabe que el acto de cuidar tiene representación en diferentes dimensiones del ser humano, ya sea físico o psicológico, emocional y espiritual.

Descriptores: Unidad de Cuidados Intensivos; Humanización; Tecnologías.

Introduction

Intensive care units (ICU) emerged from the need for rigorous and uninterrupted observation of critically ill clients. In the beginning of the 19th century, the need to reserve a specific area to provide special care to acutely ill patients had already been observed.¹ However, it was only in the 20th century that there was news of the creation of the first intensive care unit, created at the John Hopkins Hospital, in the United States of America, in the 1920s. It was in this decade that the figure of the nurse was inserted in the context of these units, when she was assigned the responsibility for the constant observation/monitoring of high-risk clients who were hospitalized there.²

In Brazil, it was only from 1970 onwards that these units began to be disseminated in our milieu. Certainly, this was a time of great challenges and meaning for Brazilian nurses, as they needed to keep up with scientific and technological development, without letting nursing care with constant presence with the client be overshadowed or relegated to the background bed.

However, at the same time that technology meant for these professionals to overcome fear and insecurity when caring for the critical client, many of these professionals believed that it ended up removing the nursing professional from the client's bedside. It is possible that this concern may be related to the emergence of a discourse by health professionals, absorbed by nursing, that the practice of care in the ICU is inhumane.³

This inhumanity considers that the incorporation of technologies in these units has enabled many procedures that were previously performed directly by nursing professionals to be replaced by electronic devices and equipment. This discourse seems so real that it led the Ministry of Health (MS) to publish in 2001, an ordinance instituting the National Program for the Humanization of Hospital Care, called Humaniza - SUS.

The relationship of the nursing professional with the machines and the possibility of dehumanization in care has also been of concern to a significant number of nursing professionals working in the ICU. In Congresses and Symposia on Nursing in Intensive Care, the topic of humanization is frequently discussed.⁴

The result found, many times, is that the humanization of these units is an urgent need, even when it is not really known if they are inhumane. This leads to the following question: What is there in intensive care or nursing care that is provided there that is capable of threatening the human condition?

The answer may be related to the machines used in these units, which apparently overshadow the subjectivity and intersubjectivity of nursing actions in view of the large amount of rational activities, from procedures such as simple hand washing to the aspiration of intubated clients. This situation requires from nursing a set of rational knowledge and appropriate technologies, which does not eliminate the possibility of considering other aspects such as spirituality, emotions and verbal and non-verbal bodily reactions of people who depend on machines and nursing professionals to survive¹.

Another issue to be explored is whether nursing in these units is aware of this. In this sense, it is believed that a better reflection on the meaning of care in the ICU and the use of technology by nursing professionals can contribute to a

better understanding of the peculiarities of this care and the expansion of its concepts.³

In this perspective, and in an attempt to deepen the reflections on the relationship between man, care and technology, it was decided to study the emerging meanings of this relationship, capable of promoting the discourse of humanization in intensive care, considering the rapid and constant appropriations of new technologies to care for in these units.

Therefore, the option to study the meaning of care in the ICU is justified, given that the intensive care unit is a fruitful place to find meanings about the practice of care using technology. Thus, it becomes possible to find the bases that will enable the (de)construction of the dehumanization discourse in these units, that is, the belief that the use of technology can support the understanding that the care provided by nursing professionals in ICUs can be inhuman.⁴

The word technology refers to the thinking of work/production/machine, corroborating the enslavement of the world of machines, through a separatist logic between care and work. It also goes back to specialized units such as intensive care units, in which the human being is connected to a whole technological apparatus, that is, to a variety of sophisticated and complex devices.⁵

Technological advancement in health is an achievement and its relevance is unquestionable, but reflected in the way it is used. The act of promoting comfort is intrinsic to nursing practice and essential to human care, however minimized in the face of technologies in complex environments.²

The technological process is implemented in our daily lives in all aspects, both personally and professionally, trends are routinely inserted in our daily lives in order to contribute mainly to the optimization of time, generating significant changes.⁶

Technologies have increased exponentially since the mid-twentieth century, making it inconceivable today to provide quality services without the use of technologies, many of them of an innovative nature. Medical-scientific technologies have made enormous contributions to people's health. Suffice it to mention the advances arising from the invention or discovery of antiseptics, anesthetics, antibiotics, vaccines, etc.⁷

Since ancient times, human beings have been constantly looking for technological advances for their survival, such as the discovery of fire or technological instruments. In this sense, industrialization determined advances that promoted the rise and development of all fields of knowledge, including health, with the use of information technology and sophisticated equipment that enabled the fight against diseases and the search for better living conditions and health.⁸

Nowadays, this growing technological innovation is available to professionals and users. However, despite the constant and determinant use of technologies, its concept has been misused, as it has been attributed in daily practice only as a machine or product. Thus, it is important to emphasize that technologies should not be seen from a reductionist perspective associated only with equipment.⁸

In the field of health, technology is not opposed to human touch, but configures itself as an agent and object of this touch. The ambiguities of technologies, sometimes product, sometimes meaning and sometimes product,

sometimes process, do not characterize it as inhumane, but confirm its objective side and its social side. Thus, its main purpose is to make human activity increasingly efficient through the production or improvement of technologies, which directly and/or indirectly, are at the service of care.⁹

In this context, the emergence and structuring of Intensive Care Units (ICU) in hospitals occurred mainly to receive critically ill patients with a positive prognosis, but also considering this perception of the need to keep up with evolving contemporary technological processes in favor of health care, in order to offer differentiated care, constant surveillance by the multidisciplinary team that lasts 24 hours a day.¹⁰

The Intensive Care Unit (ICU) is a critical area with critically ill patients, who require maximum attention and specialized professional assistance on a full and continuous basis, specific materials and resources necessary for diagnosis (monitoring and therapies exclusive to the sector), always having the need for investment in continuing education for all professionals who work there, thus aiming at patient safety and protection.¹¹

In view of the need for more complex care required in the sector, the presence of nurses is essential, considering their responsibility in the exercise of nursing, which among so many attributions proposes to provide the necessary subsidies in the areas of management, surveillance and qualified assistance to patients, evidencing the essence of an organized and dynamic routine to carry out work free of damage and/or risks.¹¹

With the changes brought about by technological advances, nursing professionals were conditioned to undergo an adaptation process in order to generate harmony between theory, technical procedures and technology, considering that with technological advances a range of benefits arises. to the patient who goes through the reduction of the time of their treatment/hospitalization or, in some cases, assume the maintenance of life.¹²

It is noteworthy that the evolutionary process that nursing care underwent under the direct influence of the implementation and technological development in the ICU, enabled the improvement of care for the sick, enhancing the reliability of data obtained in their monitoring and optimizing the treatment, as a result, reducing your length of stay.¹²

Therefore, it is seen that the care of critically ill patients requires the use of a specific technological arsenal and, for its use, the nurse must have knowledge and skills regarding the operation of the machine and the adequacy of the needs of those who need it her.¹³

ICUs are considered special places that demand a high degree of specialization in the work of the nursing team and require adequate training from the worker, an affinity to work in closed units and a different resistance from others who work in other hospital areas.¹³

In the current context, care in the ICU today, more than in the past, has been distinguished by the incorporation/use of new technologies, opening new horizons and new perspectives for improving the quality of work/care and life of the subjects who care for and of those who are cared for.¹⁴

It is understood that the humanization of health services implies transforming the very way the service user is conceived - from a passive object to the subject, from in need of charitable acts to those who exercise the right to be a user of a service that guarantees actions technically, politically and ethically

safe, provided by responsible workers. Finally, this transformation refers to a political stance that focuses on health in a broader dimension, related to living conditions inserted in a sociopolitical and economic context.¹⁴

In the process of humanization of health/nursing care, it is intuited that, unlike the charitable perspective that points out the worker as having certain previously defined and even idealized characteristics, its participation as a subject who, being also human, can be capable of human and "inhuman" attitudes built in relationships with the other in everyday life.¹⁵

However, it is necessary to keep in mind that technology, as important and indispensable as it may be, does not surpass the human essence that makes it possible to criticize and build a more human and less hostile reality within the ICUs.¹⁵

In care practice, nurses must be aware that technology must become an ally and not a villain, making the care provided to patients as humane as possible in a holistic way, that is, treating them as a whole, but in a unique way. As he is the one in charge of the nursing team, he must have a critical sense in relation to the technological instruments, doing it responsibly and rationally. Constantly supervising the work of your team, providing education and knowledge so that assistance is better provided.¹⁵

One of the challenges faced by the health sector in this century has been the attempt to combine the technological resources of the ICU with humanitarian values, as, in this space, professionals remain in constant interaction with the technicality of care, essential for the maintenance of life and the proximity of death.¹⁶

The work of Nursing in the ICU covers several needs to qualify the care provided to the patient and family with a focus on humanization, being necessary for the professional to combine technical-scientific knowledge to provide safe and better quality humanized care.¹⁷

Actions between professionals, the critical situation of patients and the use of various technologies require specific knowledge to develop care based on the principle of comprehensiveness, one of the principles of the Unified Health System (UHS), which considers people holistically, in their biopsychosocial needs.¹⁷

Amidst technological innovations, it is a challenge for nurses and the nursing staff to associate humanized care and technology. The intensive care unit (ICU) is characterized by state-of-the-art technology, having an arsenal of equipment that offers support and constant monitoring to patients in critical condition¹⁵. Intensive nursing care, in the context of humanization, seeks to meet the needs of users and their families, taking effect from the perspective of the expanded clinic and the co-responsibility of care. It is noteworthy that it is a challenge for health professionals, especially in the ICU, due to the characteristics of this unit.¹⁷

In this sense, the aim of this study was to investigate whether dehumanization is directly linked to technologies, as instruments for care, or to intensive care units, as technological environments.

Method

Literature review is the process of searching, analyzing and describing a

body of knowledge in search of an answer to a specific question. "Literature" covers all the relevant material that is written on a topic: books, journal articles, newspaper articles, historical records, government reports, theses and dissertations, and other types. The systematic chosen in the present work was the bibliographical research, which deals with the search for a problematization of a research theme from published references, analyzing and discussing the cultural and scientific contributions. It constitutes an excellent technique to provide the researcher with the theoretical background, knowledge, and scientific training that enable the production of original and pertinent works.¹⁸

Literature review is a vital part of the research process. This involves locating, analyzing, synthesizing and interpreting previous research (scientific journals, books, conference proceedings, abstracts, etc.) related to your field of study; it is, then, a detailed bibliographical analysis, referring to the works already published on the subject.¹⁸ A literature review is essential not only to define the problem well, but also to obtain a precise idea about the current state of knowledge on a given topic, its gaps and the contribution of research to the development of knowledge.¹⁸

Data collection took place in October 2021 in the following databases: Lilacs- Latin American and Caribbean Literature in Health Sciences, Bireme- Regional Medicine Library, Scielo- Scientific Electronic Library Online. For the search, the following keywords were used: Nursing, technology, humanization. Articles available in full, online and published between 2016 and 2020 were included. Those without a direct relationship with the topic were excluded.

After reading the manuscripts and selecting them, the following information was extracted for analysis: title, objective, results and conclusion. These were analyzed through thematic analysis.

Results e Discussion

With a total of 120 articles identified in the databases, 30 documents were analyzed according to the inclusion and exclusion criteria for review, of which 9 were selected for the study and which met the research object (Chart 1).

Chart 1. Articles selected for the study according to author/year, title and objective. 2021.

Year	Title	Objective
(2016) ²	Soft technologies applied to nursing care in the intensive care unit: a literature review	Reflect on the use of light technologies in nursing actions in the intensive care center, analyzing the importance of their employability to improve the patient's health.
(2017) ³	Technology and humanization: challenges managed by nurses in favor of comprehensive care.	Addressing the themes of technology and humanization in hospital organizations, emphasizing conceptual and strategic aspects of these two areas in the Nursing universe.
	Care practices of	To analyze the social representations of

(2019) ¹³	intensive care nurses in the face of technologies: analysis in the light of social representations.	nurses' care practices in light of the technologies applied to the client hospitalized in intensive care.
(2018) ¹⁵	The role of nurses in the intensive care unit in view of new health technologies.	Reflecting and understanding whether it is possible in the face of new technological advances such as those existing today, harmonizing this relationship between technology and care in a humane way.
(2016) ⁴	Computerized nursing process in the Intensive Care Unit: ergonomics and usability.	To analyze the ergonomics and usability criteria of the Computerized Nursing Process from the International Classification for Nursing Practices in the Intensive Care Unit, according to the standards of the International Organization for Standardization (ISO)
(2018) ¹⁹	Philosophical perspectives on the use of technology in intensive care nursing care.	Reflect on the use of technology in nursing care for critically ill patients in intensive care.
(2020) ²⁰	The Use of Technologies in Adult Intensive Care Units by the Nursing Team: An Integrative Review.	To identify, through a literature review, the use of technologies present in the Intensive Care Units by the nursing staff and the impact on work.
(2019) ²¹	Contributions of Technology for Nursing Care in the Intensive Care Unit.	To investigate the contributions of technological evolution from the perspective of nurses within the Intensive Care Unit (ICU), analyzing the advantages and disadvantages of its use in patient care.
(2021) ²²	Brazilian scientific production on biomedical technologies and patient safety in ICU: integrative review.	Identify the Brazilian scientific production on biomedical technologies and patient safety in the ICU.

The analysis of the characterization of the selected studies showed that technologies seek to enhance the effectiveness of human skills in the most varied spheres, including nursing, thus favoring an improvement in the care process. Therefore, the way of providing care has been modified, changes that have been provided.

The term technology is defined as a cluster of actions, which include methods, procedures, practices and techniques, instruments and equipment that are used with technical and scientific knowledge and knowledge, involving skills and sensitivity to recognize what, why, to who and how to use them.¹

Technological development has been a constant search of human beings, since the most remote times, and that, systematically, has been determining not only their survival on Earth, but also their capacity for domination and transformation. The discovery of fire, the invention of the wheel and the most advanced technological instruments that facilitate human life today exemplify this intended and achieved technological evolution.³

The development and historical transformations experienced by societies count among their causes and effects the developments of technoscience. The context of nursing/health care has been systematically influenced by these changes produced in the field of technology, which has generated several concerns and questions about the benefits, risks and relationships built between workers, patients and the use of technologies as essential tools for nursing/health care.³

The growth and historical changes experienced by societies lead to the development of science technology. The scope of care directed to nursing has become systematically motivated by such changes driven by technology, which has brought many exaltations and reflections regarding the advantages, disadvantages and relationships created between professionals, patients and the use of technologies as fundamental mechanisms to nursing care. Especially in intensive care units, critically ill patient care involves the use of a special technological set that mainly requires nurses' understanding and skills both in terms of operating the machinery and its compliance with the needs of those who need it.²⁰

In the Intensive Care (IT) area, due to the high degree of complexity, the provision of nursing care needs to reconcile the interaction of the subjectivity of care for human beings with the objectivity of the use of technologies. These are evidently present in this care process, but for the professional to integrate them into their care, it is necessary to apply knowledge on their part so that the two contribute, together, to the patient's rehabilitation effectively.²

Technologies in Intensive Care Units (ICUs) help professionals a lot in carrying out care and thus generate benefits for their work, but they must be able to handle them, otherwise instead of benefiting their care they will have the opposite effect causing difficulties in the provision of care.²

The nurse who works in this unit needs to have scientific, practical and technical knowledge, in order to be able to make quick and concrete decisions, transmitting security to the entire team and especially reducing the risks that threaten the patient's life.¹³

Technologies in IT greatly benefit nurses in relation to nursing care, as they replace some mechanical actions performed by professionals, making the process faster and more efficient, which is necessary in an ICU, where high-risk patients remain. They make the nurses' work lighter and easier, helping them not to be overloaded with their activities in the unit. Technological innovations are often appearing to assist in care, that is, the professional is increasingly benefited in carrying out their work.^{13,19}

The technologies demand extreme knowledge from the professional, because, even with their great benefits, if they are not able to handle them, they can cause great harm to the patient, worsening their clinical condition. The main challenge for professionals in integrating technologies into their care is to acquire knowledge to carry out such an act, as most of the times they have to learn on a daily basis during their practice with other professionals, since, generally, the unit does not has a preparatory method for this, thus making his work difficult.⁴

In the ICU, an environment equipped with high technology, it is easy to see the technical-scientific advances and the search for increasingly safe medicine, given the situations that pose a risk of death. In this sense, it is necessary that professionals who work in this space have knowledge and

experience, and therefore, these personnel, mainly nursing professionals, are responsible for the quality of care provided.⁴

In nursing practice, technology advances in search of improved patient care and the improvement of the work environment. Technology has transformed nursing practice in the workplace, not only in terms of the machines and equipment used, but the skills we have developed and the knowledge we possess, the values we stand for and the importance of nursing to society.²¹

Therefore, technologies must be used in favor of care and to facilitate care practices, thus providing the optimization of the professional's time so that he or she can be closer to being cared for. Therefore, the distancing caused by excessive attention to technologies can explain the difficulties in the communication process, as well as the coldness and frostiness of the interpersonal relationships built in the intensive care units, identified as one of the factors that influence the way in which the care and care practices.²

Humanization in the ICU where care is provided to critical patients, health professionals, especially nurses, need to use technology combined with empathy, experience and understanding of the care provided based on therapeutic interpersonal relationships, in order to promote safe care, responsible and ethical in a vulnerable and fragile reality. Caring in Critical Units is an act of love, which is linked to: motivation, commitment, ethical and moral posture, personal, family and social characteristics.¹³

Assisting the patient in a humane way goes far beyond procedures, technological and pharmacological interventions, it is not enough to call them by their name, have a smile on their lips, to assist them in a humane way is to at least try to understand their fears, anxieties, uncertainties, doubts, anguish, its social, psychological and spiritual aspects, understanding what ails you so that the professional can comfort you, leaving you more secure.²²

The activities of health professionals working at the hospital favor a conception of suffering as natural, on the part of these professionals. The difficulty in establishing a balance between life and death, health and disease, cure and death is constant, and makes workers potentially difficult to manage the tragic. Therefore, it is possible to create a space for depersonalization and distance from the reality of patients²¹.

Conclusion

The technologies used in intensive care, regardless of their type, have been gaining more space and reinventing themselves every day, and that is why nursing professionals, in their daily work, have been using them more and more in practice of your care. Through the analysis of the articles, it was possible to conclude that technologies benefit by helping nurses in the action of their care in the ICU and that they also make it difficult to see the fact that they somehow have to specialize in the equipment they use in their practice. to avoid mistakes.

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