The practice of intensive care nursing: alliance among technique, technology and humanization*

ABSTRACT
A qualitative, field research study whose aim was to characterize the specific practice of intensive care nursing. Observation and interviews were conducted with 21 nurses in an intensive care unit. The results evidenced eight characteristics of this care, which included subjectivity and objectivity, translated into: interaction, dialogue, humanistic principles, vigilance, knowledge, and mastery of machinery. Because of this practice, subjectivity is not always expressed in a clear way, and objectivity requires training of nurses to perform intensive care. It is concluded that the practice of intensive care nursing combines technique, technology and humanization, which underlie the nursing care performed at the unit.

DESCRIPTORS
Nursing care
Intensive Care Units
Technology
Humanization of assistance

RESUMO
Pesquisa de campo, qualitativa, cujo objetivo foi caracterizar a clínica do cuidado de enfermagem específica da terapia intensiva. Para isso foram realizadas observação e entrevista com 21 enfermeiros de uma unidade de terapia intensiva. Os resultados evidenciaram oito características desta clínica, que abarcam tanto a subjetividade quanto a objetividade, traduzidas em: interação, diálogo, princípios humanísticos, vigilância, conhecimento e domínio do maquinário. Em razão dessa clínica, a subjetividade nem sempre se expressa de maneira clara e a objetividade exige capacitação dos enfermeiros para cuidar na terapia intensiva. Conclui-se que a clínica do cuidado de enfermagem na terapia intensiva alia técnica, tecnologia e humanização, que fundamentam os cuidados de enfermagem que lá se realizam.

DESCRIPTORES
Cuidados de enfermagem
Unidades de Terapia Intensiva
Tecnologia
Humanização da assistência
INTRODUCTION

Nursing care encompasses actions that are the very nature of the profession, a result of technical and scientific preparation based on empirical, personal, ethical, aesthetic and political knowledge, aiming to promote health and human dignity[41]. When one thinks about the way such care is performed, its sociopolitical dimension is highlighted, because it is not only operational, but a process that aims to promote human life, building on theoretical and philosophical backgrounds that guide the choices made by those who perform it[41].

In the field of intensive care (IC), the modes of nursing care show the interface between objectivity and subjectivity in caring, and the use of technologies as a complementary instrument is evident. Results of an investigation about the social representations of technology indicated that the way nurses act when taking care of a patient requiring devices signals the possibility of two forms of action: caring and technological action[29].

Caring requires a greater application of knowledge, which directs the attention of nurses in search of the client’s objective and subjective data, as well as data from the devices. The technological action is mostly sustained by information from the technological device, leading professionals to perform actions based on data supplied solely by the device[29].

These considerations illustrate the issue of modes of care, observing in the discourse of scholars an opposition between the objective and subjective spheres of care in IT. On one side, we find a group suggesting that more attention to objectivity involved in care occurs in the professional actions, at the expense of expressiveness. On the other, there is a cohort that believes that the fact that the nurse concentrate his observation more on certain critical situations that require technology for care does not presuppose a notion primarily of devaluation of subjectivity, indicating a mechanistic view, or lack of patient care, seen as inhumane conditions. But, on the contrary, it denotes concern with the well-being of patients and the maintenance of vital functions[33].

Despite the specificities in the IC scenario, discussions about the setting of care and professional actions are common, often criticized, particularly regarding modes of action in the face of technology, leading to a reductionist analysis of polarity of the dimensions of nursing care, which ends up simplifying the range of IC practices. Under this view, the modes of nursing actions may be related to a particular practice of nursing care, which justifies certain formats of caring for patients, and helps delimit the proposed discussion.

Few nursing authors have dealt with this issue, except within psychiatric nursing practice, which chooses a certain indiscipline, being faithful to openness, tolerance, diversity, and different psychiatric characteristics. In this clinic, the treatable dimension of mental illness is not marked by the specificity of the disease, but rather the person who is sick and what it is possible to do for her and with her, in a creative and critical mode of care[46]. In research that defended the contributions that a technology of sustained process in the appreciation of culture could bring to a nursing care clinic, the notion of shared care was reinforced, in which the subjects are active producers of knowledge. This proposal should be part of the modes of action of the nurse[49].

Internationally, this issue is approached in light of the uncertainty of nursing care practice. Because its knowledge does not have its own outlines, the methods are not easy to identify and the instruments fall within the medical field[60]. The idea of practice originates in the medical field, related to a clinical model consisting of a framework of psychobiological knowledge that supports this professional’s work[7].

Considering the above, the authors are in favor of a notion of nursing care practice, which pervades what nurses do or what needs to be done in an area of action to reach the goal of nursing: caring. Based on this defense, this article was guided by the following question: which characteristics of IC nursing work represent the nursing care practice of the field itself? The goal is to characterize clinical nursing care specific to IC, in light of the performance of nurses.

The importance of the study is reiterated because it provides support to clarify the ways in which nurses care for patients in these environments, allowing the detailed delineation of nursing care practice, in addition to theoretical advances in fundamental care and nursing technologies.

METHOD

This was qualitative field research, developed in an Intensive Care Unit (ICU) of a public institution, in the city of Rio de Janeiro. The subjects were 21 nurses who met the following inclusion criteria: working in direct care in the ICU, being active during the period of the study, and agreeing to participate. Failure to meet these criteria resulted in the exclusion of the subjects. The techniques to produce data were observation and interview.

The observation sought to portray the daily practice of intensive care nurses in order to capture how they acted regarding intensive care patient practices, perceptions and meanings of their behaviors, through immersion of the researcher in the field, sharing the daily lives of professionals working in this sector. Elements characterizing the course of action adopted by nurses in intensive patient care were captured and expanded in interviews, whose script covered the causes of actions and meanings assigned to them. A
dense description of the observation data was made, by registering them in a field diary, accounting forapproximately 150 hours of observation.

The observational data analysis aimed to describe, translate, explain and interpret the scenes and actions of care. From this analysis, eight characteristics of nurses’ actions were identified, which were confirmed by content analysis applied to the interviews. The explanations given by nurses for their actions allowed detailed description of the characteristics identified, classified into two categories: Characteristics of Nursing actions: subjective sphere of the practice of intensive care nursing, and, Characteristics of Nursing actions: objective sphere of the practice of intensive care nursing.

The study was approved by the Ethics Committee of the Hospital Geral de Bonsucesso, protocol 35/10. The subjects signed an informed consent, and anonymity was maintained through numerical identification of nurses, based on the sequential order in which observation was made. Data collection was performed from November of 2010 to May of 2011.

RESULTS

Characteristics of nursing actions: subjective sphere of intensive care nursing practice

The first characteristic to be emphasized was the uniqueness of the individual, exemplified in one part of the field diary in which the nurse demonstrated concern about the behavior of nursing technicians regarding the client’s religion. In this scene, the nurse was in the nursing station, part of the team had gone to lunch, and the unit was silent.

At that time, it was a mess. These two over here [points to the two nursing technicians] were singing at bed 10, here there were lots of people talking. These two were singing gospel music for the patient. We [referring to the physician at the unit] were here commenting: - What if the patient liked macumba? The nursing technician replies: - What do I have to do with it? If he had not liked it, he would have said it. The nurse counters: - But how was he supposed to say it? He could not say it! [alludes to the patient’s clinical status]. The technique expresses little concern with the religious preference of the client. The nurse, with an expression of disapproval, concludes: - But you know that cannot be so (...) (Excerpt from the field diary, report by Nurse 5).

Taking care of a client who was hospitalized in the ICU, whose medical history was peculiar, shows how the interaction, dialogic relationship and application of humanistic principles can be present in the daily practice of care in this setting. This scenario involved a teenager with quadriplegia following a trauma. He was awake with no cognitive impairment, and had a tracheotomy, artificial ventilation, and limited verbal communication. The scenes selected depicted the recognition of the importance of interaction in this environment and indicated the feeling of humanity raised by facing this type of clinical situation in the caring relationship. When returning from the bed of this client, Nurse 2, with an air of dissatisfaction and unrest, stated:

I am in agony when I’m with that boy, I do not like to be with him! [referring to the duty roster] He doesn’t communicate, doesn’t interact, we talk and he does nothing (...) he interacts with some people, but with us he does nothing! (Excerpt from the field diary, report by Nurse 2).

Also regarding this patient, in a conversation with the psychologist of the unit, the nurse spoke with a tone of concern:

But doesn’t he know the truth about his case? I think he had to know the truth. Ah, but I think it must be so hard, my God! [After the speech, she acts thoughtfully] (Excerpt from field diary, report from Nurse 2).

Some professionals, although facing barriers to communication, seek to deepen the interaction, such as in the case of Nursing Technician 1, who accompanied Nurse 2 to the bed and, in front of the client, patiently sought to grasp his requirements from the babble of words.

Boy, I do not understand! (This technician makes an expression of uneasiness and anxiety). Let’s start again? (...) - Ah, I love that boy, it is that I feel sensitized (Excerpt from field diary, account of Nurse Technician 1).

With respect to subjectivity, concern for others, involvement, is a characteristic that recurrently shows up in professional actions, such as in the case of Nurse 7. One of the clinical situations observed involved a bedridden client, the victim of a landslide, who was lucid and oriented, with lesions in both lower limbs.

There is a medical discussion around the bed of the client on the treatment to be implemented. Nurse 7 approaches, caresses the client and holds her hand, standing beside her while the other team members continue talking. After a few minutes, the physicians decide on surgery and Nurse 7 starts hygiene care. The client, feeling welcomed by the nurse and with an affectionate tone, addresses her by name: - Could I brush my teeth? The nurse was concerned about pain during physical handling and with an expression of consternation, goes to the researcher and said: - She (the patient) hugged her daughter and managed to stay buried for six hours. Last shift, when I got home, I could not do anything else, I had that story in my head. (Excerpt from the field diary, reporting by Nurse 7).

Characteristics of nursing actions: objective sphere of intensive care nursing practice

In the case of the objective dimension, device surveillance was illustrated when the nurse, while bathing a bedridden client in an isolation unit, commented on the structural characteristics of the unit, referring to the team’s commitment.
This is a matter of team commitment. Some days ago, I was going to collect blood in the next bed, and passed by this bed to observe the client. When I saw it, the ventilator was disconnected, the client was in cardiac arrest, the alarm was ringing and no one saw it! Some people claim to be intensive care professionals, graduated, 20 years in the ICU, so what? If you really don’t monitor, it is useless. I taught some classes on emergency and ICU and told my students that technology is dumb; it needs care, maintenance (Excerpt from field diary, report by Nurse 5).

The report by nurse 16 regarding being alert about the alarms and the risks involved in inappropriate use denoted the need for assistance in mastery of machinery in IC, through the use of knowledge appropriate to manage it.

When the patient is admitted, he is also admitted for the device, because if the device is there, it is programmed with the parameters and you do not set the appropriate parameters for the diagnosis of that patient (...). You admit the patient, for example, with Adult Respiratory Distress Syndrome. You should monitor him and adjust saturation parameters, even the pressure parameters too, mostly the respiratory ones, and people do not reset the alarms, they do not adjust them according to the pathology, and what happens? The monitors alarm for any reason and for any patient and people trivialize alarms. The truth is this, this banality, I think that actually leads to the occurrence of unattended deaths, which is serious inside a closed sector (Interview, Nurse 16).

Regarding the interface with the machinery, the observation of technological language is a requirement for the identification of clinical changes that require prompt action by the nurse, as confirmed by nurse 11.

(Technology) can provide me with information about the patient. Even being with patients 1, 2 and 3, I know the cases and know I will have to select the priority for my care. When taking care of patient 1, I can look at the technology of patient 3 and it will tell me if I must stop what I’m doing, because something unexpected is happening in bed 3. It opens up this view, so I have to be alert. (Interview, Nurse 11).

The manipulation of this machinery requires careful preparation of workers, as complemented by this informant.

Knowledge enables other readings about the situations. Monitor during bath: it is important for some, not for others. Is it important to know why he is monitored? I think so! Perhaps because they were placed here and they do not have this understanding. Either they were not trained, or they do not know the importance of monitoring critically ill patients. It is a system failure not to allow me to always be trained. (Interview, Nurse 11).

DISCUSSION

The subjective sphere of the practice of intensive care nursing has been discussed from the use of technologies, due to the influences of these resources on the modes of nursing action towards the patient. One of the characteristics of technology that helps explain this is the fact that it mediates rationality and subjectivity, which makes the use of tools related to reason and sensibility necessary, so as to strengthen nursing care. Some studies point to the importance of valuing subjectivity in the modes of action in the IC environment, when considering the use of technology for care, denoting it is part of practice[9-10].

Intersubjectivity manifests as a lived relational history, as a language, intercom, knowledge, values, beliefs, emotions, desires, fears, perspectives[11]. Conceiving of the individual as an object moves him away from his subjectivity, and the human relationship is supported through subjectivity, which gives uniqueness to the individual[11]. Uniqueness indicates that the human being is personal, particular, reserved, private, but also interrelates to others through meetings, in which the intersubjective relationship occurs. Every relationship is a meeting of subjectivities[12].

The discussions about these interfaces among individuals involved with the caring actions in a technological hospital environment are part of the elements, interaction and dialogic relationship. This means that interaction sustains the encounter between the nurse and the client, regarding the existential dimension of being, valuing his life experiences[10]. Caring implies dialogue, in a process that encompasses feelings, actions and reactions, enabling intersubjectivity. If done in a warm, caring and human way, embracing the technical professional perceptions and emotions, care can improve client status[10].

It is essential that the use of technology in care is guided by humanistic principles, because it is reflected in the actions of the nurse and in the client. It is noteworthy that technological development, which provides quality in critical client care, should not prevail over the human dimension of care[10]. The interpersonal contact during the care of the patient in this scenario is no different from other environments, and it must combine human feelings with technical activities.

The need for valuing of subjective elements that compose this category is also supported by studies covering the issue of technology, in which there is a need for a moral examination within the context of ICU technology, because technology changes moral and social dynamics of the nurse-patient dyad by informing and directing nurses, producing a distance that places them in a position of power as epistemic authority, thus constraining patients[13]. Another study in light of the broad practice considers that there is exacerbated concern of the professionals with medical prescription, electronic devices and exams, at the expense of a further strengthening of dialogue, determining what is called the inversion of value, supporting itself in a hegemonic model. It is necessary to overcome a piecemeal form of fragmented practice, by heading toward the notion of interdisciplinarity, respecting the subjective and social characteristic in the complexity of each subject[14].
Countless studies conceive of the relationship between man and technology as purely rational and instrumental. They see technology as a functional means in the service of human ends. However, it is argued that technology and its users reconfigure one another in their private practices. The contrast between the coldness of technology and the warmth of care is not supported, as there are different connections between people and technology in their contexts of use, which allow the creation of emotional and social bonds.

Regarding the second category, which deals with objectivity in the ICU practice, machines that provide advanced life support also need assistance and care in the case of a postoperative period of cardiac surgery, for example. It is considered that device surveillance matter to nurses, with the ultimate purpose of maintaining patients’ lives. In this practice, it is necessary to watch and also take care of the device.

For safe care, it is essential to know, master and reflect on the use of technology in the ICU. This characteristic of mastery of machinery is important in the field of intensive care nursing, as devices result from science, products of a particular technological knowledge. For the equipment to be used by professionals in their daily practice in an increasingly refined way, aiming at the quality of client care, attention to such knowledge is essential.

The preparation of workers to understand the functioning of technology aimed at efficient working conditions is a way for these to be considered as a resource for nursing work. Due to the advancement of knowledge and the accelerated production of technological innovations, training and professional development for care are necessary for practice, requiring, therefore, continued qualification of health workers, since this approach is still quite shallow in their education.

The existence of a technological language aimed toward the amplification of signals emanating from the body of the client through the device, and translated into manipulated codes, is another idea advocated in this context. Observing and understanding the codes of the device is necessary, so that it can drive safe care for patients. In order to avoid incorrect handling, strict observation and correct understanding of this language are needed, since errors may cause harm and the death of the patient. It is important to observe the technological language for nursing care.

One of the consequences of the progressive complexity of the technological devices is the significant number of errors, as many incidents occur by faults in its operation, requiring management of risks of iatrogenic complications with the use of healthcare technology, focusing on factors that affect safety, as is the case of nursing work. Therefore, a system of constant surveillance by nurses or technical surveillance in order to prevent the occurrence of errors in the management of technology and minimize the risk to the population is of great value in clinical nursing practice.

The results expressed in this category are in line with a reflective study about the use of technology in intensive care nursing, defending the careful handling of devices. The use of technology in intensive care patient IT raises a concern regarding the devices, requiring analysis of the relational function of the device with the nurse, the patient and the care environment, in order to obtain a greater chance of positive therapeutic effects. Hard technologies must be rethought as being with the critical patient, leaving aside the idea that when handling the device, one forgets the individual who is dependent upon it.

For such care to be free of errors, the competence of nurses required to work in the ICU is relevant. This competence was demonstrated in an investigation which found that the proportion of certified professionals in the team was inversely related to the rate of falls and the number of years of experience of nurses, and inversely related to the frequency of urinary tract infections, indicating that there were links between the competence of nurses and patient safety. Knowledge and judgment of nurses in the prevention of adverse events were emphasized, especially regarding the application of technology.

Characterization of a practice of intensive care nursing in the light of nurses’ work

The incorporation of technological devices in IC brings countless requirements for professionals who seek ethical, safe and quality care. The modes of action of nurses are specific elements that seek to balance objectivity and subjectivity. However, in the organization of this practice, some objective characters stand out, such as the actions of care focused on the management and operation of the device, concern with observation and mastery of the device’s language about the physiological functioning of the client, and surveillance regarding the occurrence of undesirable effects that may pose risks to life.

Several factors contribute to that. In order to sustain life and restore health, patients are coupled to devices that momentarily perform vital functions. In addition to direct care, theoretical and practical knowledge is essential in order to understand their modes of execution and to interpret their data, ensuring reliability of the results and driving care performance. If that does not occur, client care is impaired, compromising his progress. In intensive care, most clients present hemodynamic instability, where complications are frequent that demand monitoring, so that there can be quick interventions during occurrences in order to restore organic functions.

The practice of intensive care nursing has certain characteristics that make the modes of action of nurses conform to caring styles, marked by an increased expression of objectivity of the very nature of the profession at certain times, which does not mean devaluation of subjectivity but...
is a repercussion of practice. More attention to devices and procedures related to them are inherent to the practice of care in this environment.

The impact of patients’ death represents the failure of efforts and investments of the multidisciplinary team. Thus, professional work, especially in intensive care areas, is driven by the dogged pursuit of the patient’s recovery, up until the use of the last effective treatment available to prolong his life. The rescue of life includes attention to technology, which justifies the modes of action of nurses.

The technological revolution in health care has impacted the way to approach clients in IC; i.e., as nurses start having a more refined technical performance, they also turn away from the client13, since contact between nurse and patient decreases due to the great number of devices used. However, this distance cannot represent an immediate idea of turning patients into things, cold and distant relations, among other negative qualifications of care that are transmitted in the current literature.

The results reported here show that there was respect for others and careful attention to the human being and, contrary to popular belief, the distance could mean concern as a result of the need to seek information about management of the device or pathology. These arguments are supported by the very practice of this environment, in which there was production of new knowledge and technologies, requiring the nurse to accompany this transformation and occupy most of his time involved with this activity.

Due to the use of sedative drugs and the fact that the resources used are invasive, clients are wholly dependent on those who take care of them. This care configuration impairs visualization of subjective care characteristics in professional actions. However, it is reiterated that there are characteristics denoting recognition of subjectivity in the modes of nursing care, but due to the specific practice of this scenario, this is not always clearly expressed, which produces discourse about the rescue of expressiveness of the individual in the promotion of the humanization of care.

An example of this is the close observation of the devices through which information is derived that helps the team better understand what is happening in the body of the patient in direct care. So that there are no errors in the translation of this information, nurses needs to interact with the devices, which gives the impression of devaluation of the client and overvaluation of the machinery. However, this is a characteristic of care in IC, because this communication provides answers about the uniqueness and therapeutic needs of the individual, considering that he cannot communicate his demands. The device amplifies the reactions of the body and by giving attention to it, the patient’s personality is respected.

At the same time that the use of technologies facilitates critical client care, it also demands attention and care by professionals to ensure the reliability of data, being careful with its use as a human action13. Hemodynamic monitoring of the client, changes in diagnoses and interventions are needed to restore health condition of the individual, in order to rescue his autonomy in the exercise of citizenship. One could say that the attention to technology helps promote humanization, preserving human dignity. Therefore, when attention is given to the device, the humanistic principles are implicitly valued, fundamental in the expressivity of the being, but which does not always receive academic status.

The characteristics of the practice of intensive care nursing can be compared to other nursing practices in nursing, such as psychiatry. Unlike what happens in IC, in this case the attention is not directed to the advanced machinery, but to the sophistication of care for the human being14. Empathy is directly linked to what is considered psychiatric nursing practice, because from that other constituent elements are understood15. This clinic has all the subtleties and peculiarities not found in other areas of Nursing, resting on four assumptions: qualified listening with the appreciation of the narrative of the individual; in the time of the patient for the symptom and in the caring relationship; care is post-demand, focused on the individual and the action to be performed with him, and not on the disease; readiness of nurses to care, availability to meet him and be by his side, building possible paths with him16.

From the results, the configuration of the practice of intensive care nursing was emphasized: the interaction with the client was mediated by technology and by the specialized knowledge of nurses, from which this professional performs care activities that express the science and art of caring, and reflected the specific characteristics of the work environment, implying modes of care marked by distinctive attributes that manifested, in greater or lesser proportion, the objectivity and subjectivity.

Although the influence of the elements of the practice in the conformation of the styles of caring in IC and the broadening of the analysis dimension of this issue are defended, the existence of lines of action that may be reflected in the quality of client care was recognized and could put him at risk. Several authors emphasized this point when addressing care and technology13,20. They emphasized that IC is a space with peculiar characteristics, in which care is performed with predominance of machinery, marked by discomfort and impersonality21. Thereby, the relational aspects of care would be supporting technology and technicality - the protagonists, focusing on pathology and procedures. In contrast, feelings, fears, anguish, and experiences of the patient and his family are moved into second place21.

Research has also indicated that when confronting the objective characters that permeate professional practice in IC, there are groups of nurses who are unwilling to master the technology, i.e., at times when it is necessary to handle the technology, some step away from care, away from the client. In addition to these, there are those who do not step away, but settle in, without seeking the knowledge needed to take care of the client, which increases the possibility of risks20.
Taking into account the sociopolitical dimension of care, and under the adopted theoretical-philosophical perspective, the meaning attributed to the objects around nursing care determines the modes of action of the nurse and characterizes the modes of caring in this environment. It is considered that phenomena are socially constructed and that individuals deal with their everyday experiences by elaborating on what they define as relevant, mediating individual and collective aspects(22).

A consideration of the modes of nursing care opens possibilities to identify the factors that affect the organization of thinking about their practice as a social phenomenon which justifies their methods of care. The contributions of this are the reflection on professional performance, bringing to the agenda issues such as qualification, specialized training, quality of care, among others.

CONCLUSION

This article introduced the notion of the practice of nursing care based on the actions of nurses working in intensive care, which had eight characteristics, including four in the subjective sphere (uniqueness of the individual, interaction and dialogic relationship, humanistic principles, subjectivity) and four in the objective sphere (device surveillance, mastery of machinery, observation of technological language and preparation of workers). These characteristics lead nurses to certain modes of care and show that nursing care performed in the IC environment should not be characterized a priori as more or less human, since it combines technique, technology and humanization.

REFERENCES


