FAMILY COMPANIONSHIP AS A BEHAVIOURAL STIMULUS FOR INTENSIVE CARE PATIENTS

O familiar acompanhante como estímulo comportamental de pacientes internados em terapia intensiva

El acompañante familiar como dispositivo para la estimulación de pacientes internados en cuidados intensivos

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ABSTRACT

Objectives: Record patients’ verbal and nonverbal expressions and behavior when they were unaccompanied, and later when a family companion was present and comparatively analyze the alterations in patient behavior observed during these periods of hospitalization. Method: The study was conducted at the intensive care unit of a hospital in Rio de Janeiro, which accepts patients from the Brazilian unified health system (SUS). A qualitative approach was taken, involving free observation and daily record keeping in field diaries of five patients’ behavior during three consecutive days. We prioritized the observation of patients on the first day of hospitalization and subsequently when they had continuous family companionship for three consecutive days. Results: The family companion served as a stimulus for positive changes in the patients’ verbal and nonverbal reactions, from a lack of speech and movement and general passivity, to reactions that showed an acceptance of procedures, increased kinetic communication and greater participation in care.

Keywords: Nursing; Behavior; Intensive Care Unit.

RESUMO

Objetivos: levantar as expressões verbais e não verbais presentes no comportamento do paciente antes, durante a inserção e permanência do familiar acompanhante no centro de terapia intensiva, e analisar comparativamente as alterações comportamentais do paciente durante esses momentos da internação. Método: O cenário foi o centro de terapia intensiva de um hospital no Rio de Janeiro, conveniado com o Sistema Único de Saúde (SUS). A abordagem qualitativa resultou da observação livre sobre o comportamento de cinco pacientes e registros em diário de campo durante três dias consecutivos. Priorizou-se observação do paciente no primeiro dia de internação e após a inserção ininterrupta do familiar acompanhante por três dias consecutivos. Resultados: As mudanças nas reações verbais e não verbais do paciente após os estímulos gerados pela presença do familiar variaram de ausência de fala e movimento, passividade ao agir, a reações de aceitação dos procedimentos, comunicação cinésica ampliada e maior participação no cuidado.

Palavras-chave: Enfermagem; Comportamento; Centro de Terapia Intensiva.

RESUMEN

Objetivos: identificar las expresiones verbales y no verbales presentes en el comportamiento del paciente antes y durante la inserción y permanencia del familiar acompañante en el centro de terapia intensiva y analizar comparativamente las alteraciones comportamentales del paciente durante esos momentos de la hospitalización. Método: el escenario fue un centro de terapia intensiva de un hospital en Rio de Janeiro, convenio firmado con el Sistema Único de Salud (SUS). El enfoque cualitativo resultó de la observación libre sobre el comportamiento de cinco pacientes y de los registros en diario de campo durante tres días consecutivos. Se ha dado prioridad a la observación del paciente en el primer día de hospitalización y después de la inserción ininterrumpida del familiar acompañante por tres días consecutivos. Resultados: los cambios en las reacciones verbales y no verbales del paciente después de los estímulos generados por la presencia del familiar variaron desde la ausencia de habla y movimientos, pasividad en el actuar, para reacciones de aceptación de los procedimientos; comunicación cinésica ampliada y mayor participación en el cuidado.

Palabras-clave: Enfermería; Conducta; Unidades de Cuidados Intensivos.

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INTRODUCTION

This study’s objective was to highlight some of the results arising from a master’s dissertation submitted to the Anna Nery School of Nursing (UFRI). The study was conducted in the Intensive Care Unit (ICU) of a hospital in the city of Rio de Janeiro, RJ, Brazil. Our objective was to observe the patients’ verbal and nonverbal behavior in the ICU when they were unaccompanied and later when a family companion was present, and to comparatively analyze the changes in the patients’ behavior during these periods.

In general, patients admitted to the ICU have suffered from an illness or injury that requires intensive care; they are not only deprived of contact with their family, their only affective link, but are also exposed to a strange environment. Patients are surrounded by professionals who, depending on the treatments needed, work with massively invasive techniques and procedures. Technological advances have meant that therapeutic processes are often supplemented with such invasive procedures and this has generated significant changes in the patients’ hospital experiences.

The environmental conditions of such a closed sector can lead to feelings of confinement, a lack of information and social isolation, in addition to depriving patients of familiar sensory stimuli. It is common that hospitalized patients suffer from delusions, hallucinations, psychosis, anxiety, fear and depression as a result of this phenomenon. Scientific literature includes many descriptions of environments such as these, in which patients, throughout their hospital stay, are deprived of normal, familiar sensory stimuli whilst being constantly bombarded with strange new ones.

We believed that introducing family caregivers into ICU could help to minimize the emotional turmoil felt by both patient and family members and, in turn, result in improved emotional balance and greater patient participation in their own care during the period of hospitalization. In this study we focused on recording patients’ non-verbal expressions, identified by the participating nurse through careful and vigilant observation, and compared how they differed when a patient was unaccompanied, and later when a family companion was present.

In this study, we wanted to comply with the general guidelines of the Brazilian National Humanization Policy, which provides for a family companion at various levels of hospital attention. The following guidelines of this policy are particularly relevant: tailor services to local culture while respecting privacy and fostering a welcoming and comfortable environment and ensure the presence of a companion and social network in the hospital.

Brazil seems to be the only country to have a healthcare system that identifies the provision of family companionship as a core goal in the humanization of care. Outside Brazil, family companionship is provided for in maternity wards and the positive results of this are increasingly well documented.

According to one international scientific journal, Brazil is unique amongst all the healthcare departments and institutions providing the family companionship, which is generally only the case in the specific area of maternity care. Additionally, it found no means of assessing the impact of a family companion on the health status of the patient, particularly in the case of intensive care patients.

Examination of 21 trials involving 15,061 women who met the inclusion criteria spontaneous vaginal birth and were less likely to have intrapartum analgesia. Results came from random effects analysis, unless otherwise stated. Besides having shorter labors, accompanied women were less likely to have a caesarean or operative vaginal delivery. Continued support was most effective when given by a woman who was not part of the hospital staff, and in environments in which epidural analgesia was not routinely available.

Having the companionship of a family member seems not be possible in other healthcare sectors even when care is said to be patient-centered. There is some research addressing the connections among professional staff, the care provided, and the patients’ families but the effects have not yet been measured. In the field of psychology, scientific analysis at a behavioral level considers the body to be the base from which to experimentally examine the functional relationships between behavior and environmental events that generate anxiety.

A systematic literature review found no scientific studies assessing the effects of family-centered care, when compared to the standard or professional models of care, in the outcomes for hospitalized children, their families and their health. This is despite the fact that such family based models are becoming increasingly prominent in care. Furthermore, a much more rigorous examination was considered necessary into the use of family-centered care as a model for the care of children and families.

In the field of intensive care, social support was found to be focused on supporting caregivers. The authors found no evidence that interventions aimed to support informal caregivers of terminally ill patients help to reduce the caregivers’ psychological stress. These findings suggest that doctors should inquire about the concerns of caregivers, considering if they could benefit from additional support. The authors found no results in studies addressing the effect of caregivers on the health of patients.

We need to understand physiological changes, the fluctuations in behavioral reactions (respondent, operand, verbal, nonverbal), as the result of anxiety. These affect a hospitalized individual’s speech therapy because their emotional state, whether they are ready or not to face new
challenges during hospitalization, is expressed through their behavior. They involve reference to physiological components, operant and respondent, direct and indirect, and nonverbal conditioning as well as being related to operations that facilitate wellbeing or illness. When the body is exposed to aversive and pre-aversive stimuli, whether controllable or uncontrollable, this produces a particular physiological condition, concurrent with a change in the body’s overall response. Therefore, anxiety is a physical state that is produced by specific reinforcement contingencies: a stimulus signals that an aversive stimulus is to be expected and fight or flight behavior is not possible. The physiological changes produced by these anxiety-causing contingencies are approached stressing the role they play in behavioral relationships.

Further research is needed in order to explore the benefits of a family companion and to evaluate the effects this intervention may have on the physical and emotional health of the patient. Trials need to report on how behavioral codes can ensure the specification of new rules, which can be learned and change the behavior of all those involved. Remembering Charles Darwin, prediction and control will not succeed if the phenomenon to be predicted and controlled is not properly described.

**METODOLOGY**

We conducted a descriptive study, the purpose of which was to observe, describe and document aspects of a given situation using a qualitative approach. Thus, we chose to work with the universe of meanings, motives, aspirations, beliefs, values and attitudes. This corresponds to a more profound area of relationships, processes and phenomena that cannot be reduced to the operationalization of variables. This approach therefore makes it possible to answer specific questions within the area of intensive care with a level of reality that cannot be fully quantified.

Data were collected in 2009 in a hospital located in the interior of the state of Rio de Janeiro, Brazil. Although the hospital provides care to patients covered by the Brazilian healthcare system (SUS), consultations are also available in conjunction with private healthcare providers. The hospital offers an intensive care unit with 15 beds; eight reserved for the care of coronary patients and seven for general medical patients.

The study was conducted after the Institutional Review Boards at Anna Nery College of Nursing and St. Francis of Assisi Hospital approved the project (protocol No. 08). Further approval was obtained from the hospital management team, the nursing coordinators, and the heads of the medical and nursing sectors.

Personal contact with the families of patients was authorized by the head nurse. The families were invited to participate and received informed consent forms during a second visit to the ICU. In order to ensure spontaneity during interactions, we informed participants that the research would be on communication, but did not provide further details in the consent form as to the nature of the observation process.

The initial proposal put before family members was to accompany the intensive care patient on a full-time, ongoing basis. The families accepted and acknowledged the benefits of this opportunity and formally consented to participate by signing informed consent forms, as recommended by the Brazilian Health Council, resolution 196.

We set up the area with a comfortable armchair and a partition, and prepared the nursing staff for the inclusion of family members in the unit. We planned to introduce and observe the family members in the ICU one patient at a time, in the months from February to May. This ensured that the companions could remain in the sector until the transfer, discharge or death of the patient.

For this analysis, we gave priority to data collected only in the first four days of hospitalization. Our case study allowed for the observation and recording of patient behavior in daily field records prior to and after being joined by their companion. The records that emerged during nursing care provided us with a variety of qualitative data on nonverbal communication and how the expression of which changed throughout the study.

Indeed, case studies are often concerned with understanding the nature of an intervention, as well as establishing its costs and effects. To ensure non-participant observation, we worked with a nurse who had clinical experience and who was trained to participate as a research assistant. It was she who carried out the record keeping in the field diary.

As the patient and family had not been given details about the research process, we gave priority to data collection and analysis of the observations of the patient’s non-verbal behavior when unaccompanied, those observed during interactions with the family member and the patient’s expressions throughout nursing care.

We note that, as in nursing care methodology, the objective and subjective aspects of the patient were considered from both a clinical and a care point of view. Furthermore, the patient’s non-verbal communication on admission was valued as a subjective aspect essential to understanding the needs to be met by care expressed by the patient’s behavior.

In observational studies, the researcher has the flexibility to consider several important aspects, from general events such as changes in the patient’s mood, to highly specific behavioral details, such as gestures and facial expressions, which confirms the aim of descriptive studies, as previously mentioned.
We observed significant interaction and motivation arising from the presence of a family member during hospitalization as a result of the bond they shared. The analysis of descriptions enabled us to sort the data into the type of nonverbal communication displayed.

PRESENTATION OF RESULTS

Data were collected from five patients, both prior to and during the presence of a family companion. Observation was undertaken of the patient’s reaction to the stimuli generated by the presence of the family. It was, therefore, observation of both the patient and their companion. The research was carried out in unit which has a circular area enclosed with glass, allowing the team to have a global vision of the patients under their care.

The subjects were selected according to the following inclusion criteria: patients on invasive or non-invasive ventilation, with sedation levels on a scale of 2-7 and who were responsive to verbal or tactile stimuli. Comatose patients were excluded, as were those who were on sedation levels of 1 or who had minimal or no response to the nociceptive stimuli. The criteria adopted avoided the risk of compromising the data’s reliability.

The subjects who participated in this study were profiled as follows:

Patient No. 1: AA, 15, female, had sepsis.
Patient No. 2: AX, 48 years old, male, cerebral aneurysm.
Patient No. 3: SC, 31 years old, female, postoperative intestinal obstruction.
Patient No. 4: LVP, 29 years old, male, neurosurgery.
Patient No. 5: SV, 65, female, pulmonary hypertension.

Two analytical categories and five subcategories emerged from the observation of these ICU patients. The first category, titled ‘Physical, psychological and emotional reactions in the absence of family companions’, resulted in the following two subcategories: absence of speech and movement and passivity in acting and accepting procedures; and alterations in sensory perception.

The second category, titled ‘Physical, psychological and emotional reactions in the presence of family companions’, resulted in three subcategories: increased communication with the staff and family; active movements of the body; and sensory perceptions.

After observation and data analysis, it became evident that the presence of a companion brought about positive changes in the patients' behavior, who became more comfortable and emotionally stable with regards to their clinical status. We were able to draw conclusions using comparative analysis of the data from the observations of patients in the absence of family companionship and of these same patients when family companions were present.

Several significant changes were apparent on further analysis. Not only were patients’ nonverbal expressions clearer and more incisive, intense and frequent, but they also participated more actively in their own care when a family member was present.

In the first phase, in which the family companion was absent, the patient with sepsis presented the following behavior: she kept her with eyes closed and sometimes cried silently as she lay motionless in bed; she said the probe hurt; she was too afraid to sleep; she did not complain, being literally patient. In contrast, when accompanied by her aunt, the following behavior was observed: she wanted to sit up and watch TV; she would not let go of her aunt’s hand as she was afraid she would leave; she always smiled for the team; she rested well; she began to be washed in the shower; she remained sitting on the bed and; she was very interactive with the hospital staff.

The cerebral aneurysm patient displayed the following behavior: he was lifeless, had a deadpan expression and only interacted with eye opening when requested to do so by staff; he remained immobile; and he appeared insecure and in pain when being moved by the team as shown by his facial expressions, stiff lips and tense facial muscles. In the presence of his family he tried to talk and blinked affirmative answers. Intubated as he was, he smiled and his eyes watered up.

When the postoperative bowel obstruction patient was observed unaccompanied she: remained quiet as she lay immobilized in bed; showed limited communication; appeared depressed and worried; stared fixedly and vacantly into space; never smiled; was not sleeping at night; and did not express any desire to get out of the bed or walk around. When her companion was there she: helped to turn her body when having a sponge bath; talked and sat up in the chair; exchanged smiles with her mother; interacted more with the team; reported to have slept well; remained active and verbal; and refused to return to bed.

As for the neurosurgery patient: his communication was restricted to small gestures; he only opened his eyes at the team’s insistence; he lay immobilized in bed; he appeared drowsy; he had a blank expression on his face; and he did not move actively. When his companion was present, his objective data, measured by monitoring, oscillated. Whenever his wife interacted with the patient, the affection he received through her touch and her calm, steady intonation when she talked to him significantly affected his heart rate, increasing this by between 10 to 15 heart beats per minute and improving oxygen saturation by 0.5% to 0.8%.

The final participant in our study was the pulmonary hypertension patient: she: manifested no signs of interaction with the environment; did not open her eyes; had restricted reactions to stimuli; presented changes in the face when she was aspirated; bit the endotracheal tube; and had restricted upper and lower limb movement. When her family
family companion was present: she stared at her daughter trying to communicate; spontaneously opened her eyes; continuously held her daughter’s hand; moved her lips; put one leg over the other; slept more soundly; and held hands.

Another relevant fact refers to changes in the attitude of the nursing team as they gained a new perspective of the care they provided, even when the family companion was at the patient’s bedside for three consecutive days. Initially, many reacted to the changes resulting from the study but, through the experience, the team came to recognize the importance of preserving social and family ties whilst they were performing their caring and therapeutic activities.

**DISCUSSION**

The results of our research show that, based on their personal demands, a patient’s implicit individual needs are communicated through their non-verbal expressions. The family companion served as a foundation for this as, in their presence, patients were calmer and participated more actively during caregiving activities.

The concept of anxiety has been used in behavior analysis and is seen to be subject to different events or relationships. Anxiety levels vary in the role attributed to physiological changes and are affected by the respondent and operant relationships, both verbal and nonverbal. There are varying and complementary views of this complex phenomenon, through which events acquire different functions as a result of direct and indirect conditioning processes and affect both the patient’s speech therapy and their self-control.

The presence of a family member served as a positive stimulus in that it helped to reduce the anxiety expressed in patients’ nonverbal responses, it encouraged greater participation in interactions, and seemed to lead to patients’ improved control during care. In order to understand the meaning of the concept, we therefore need to look for the contingencies whereby the patient’s specific verbal or nonverbal response seems to have been due to the significant visual, tactile and audible stimuli arising from bringing together, and allowing for uninterrupted contact between, two people with family or social ties.

The problem of the subjective imprecision of non-verbal expressions arises in the comparative analysis between the two phases of the study. From patients’ initial behavior reflecting inertia prior to the presence of their family member, we observed a marked change during the three consecutive days of family companionship.

The bodily senses’ power and precision to serve as perception radars are fundamental and can directly and/or indirectly influence a patient’s health by serving as positive stimuli to bring about better adaptive responses and improved patient interaction with their family and the nursing team. We emphasized aspects related to language as a way to control responses and the indirect relationships between public and private stimuli.

Furthermore, there are emotional effects that can only occur when the time period between stimuli preceding aversive stimuli is sufficiently large to permit the observation of these behavioral changes. Thus, if the patient is afraid of being admitted to the intensive care unit and the verbal stimulation they receive from the ICU nursing staff is in line with their thoughts now that they are facing the real situation, then a visual stimulus alone can evoke an emotional relationship.

A patient’s lack of control over aversive internal (physiological) and external (environmental) events plays a central role in provoking and perpetuating many anxiety disorders in intensive care units. Changes in nonverbal operant responses may also be related to a positive or negative reinforcement with anxious responses.

Anxiety cannot only be perpetuated by suspending or postponing unwanted tasks, but can also be reduced by offering social attention. The presence of the companions increased the patients’ motivation, minimizing anxiety-provoking stimuli and physiological changes in the environment. By remaining with the patient, the family members were sharing important (aversive) moments and environmental contingencies, which are often responsible for provoking and perpetuating anxiety.

Our research shows that the levels of patient anxiety were kept under control by the knowledge that a family member was by their side. This worked as a positive reinforcement by providing support and the contingency of a significant bond, which facilitates self-control. Maintaining this family link served as a positive reinforcement and created a condition whereby physical manifestations linked to or controlled by emotional phenomena could take place.

Individualized and comparative observations of the patients’ every move and gesture, both before and after being joined in the ICU by a family member, showed significant behavioral changes and a rapid improvement of their clinical condition. The importance of verbal and nonverbal communication in the context of care was strengthened by the apparent sensitivity expressed in the cognitive dimensions, by the opening up of the senses and the amplitude of patients’ physical movements.

We sought to understand the models of care as ways of organizing the production of services by arranging knowledge of the area in a certain way. Thus, we believe that the field of clinical knowledge and practice is a fundamental part not only of the material technologies used for medical instruments, but also for the non-material technology of technical knowledge used in the production of health. Through our observations, we can conclude...
that, in addition to the structured technologies needed for technical tools and expertise, there is another area essential in the production of care, that of relationships. Healthcare work is always interpersonal in that it involves work in action, that is, the work and the product of the work are simultaneous. On the one hand, these relationships can be summary and bureaucratic when the care is focused on the prescriptive act, producing a model characterized by hegemonic medical knowledge and the production of procedures. On the other hand, they can also take on the role of intermediaries and establish relationships through the caregiving act.

When in the ICU, a patient needs care that is based on a holistic view of individual, ecological health. Having this vision can ensure that a patient’s unstable condition is closely monitored in order to detect and prevent any complications. It requires simultaneously understanding and treating the patient whilst paying attention to the anxiety experienced by both the patient and their family.

The results of this study highlight the fact that nurses are drawing away from the families of ICU patients. Similar results on how a nursing team and patient’s family establish communication also emerged in a recent study of nurses working in intensive care units.

In interviews with 70 ICU nurses, it was found that only 47% of nurses occasionally talk to the patient’s family or follow the prescribed treatment, 61% discuss the techniques used and 20% of them never speak to the family about the emotions they are going through. The authors concluded that there was a general lack of communication with patients’ family members during nursing activities.

Paying attention to the families of critical patients is an important attitude in healthcare ethics. An ICU patient’s care will be incomplete if the nurses do not confront the issue of the families’ suffering. After all, families play a useful therapeutic role in nursing and are also users of the health service. These are ethical ideals. In other words, our research incorporates a holistic approach towards the patient and their family into nursing practice.

At the same time, the interpersonal dimension of care is improving when it comes to the family. ICU nurses are showing interest in the factors that affect the relationship between nurses and patients’ families and in future developments in the area. Furthermore, the concept of work in action presupposes an interpersonal logic, dependent on soft technology, offering comprehensive care and the operation of lines of care that ensure attention with mutual implications. Hopefully there will be recognition that this brings together subjects who can have a protagonist role in the production of health and need to be present in guidelines for intervention/reception, bonding and accountability.

Upon collective reflection, nurses recognized the need to change aspects of their practice and pay more attention to the families. Initially, they considered the family as a factor that was external to the unit and the process of critical patient care and found contact with them as a cause of stress. After the reflective process, they went on to adopt a trusting or therapeutic relationship.

A literature review of studies related to families in the ICU published between 1993 and 2004 showed that nurses were concerned about the degree of hostility brought about by families in the ICU setting and also about the seriousness of the necessities that arose. However, the studies analyzed used non-replicable, interventionist research projects. Authors highlighted the need to implement and systematically evaluate care with a specific focus on the family.

Specific attributes of interpersonal relationships are fundamental in building links among nurses, patients and their families during the period of care. For this reason, it is necessary to consider these attributes as essential to the care process. This implies that we consider the expression of the subject and also the need to validate patient identity in the social realm of the hospital, especially whilst a patient is receiving nursing care.

CONCLUSION

Our research into family companionship was an intervention study. The preliminary analysis arising from the study allows for the creation, implementation and evaluation of new approaches to caring for patients and their family companions. In the context of intensive care, this concept seems have the real potential to bring about significant changes in the current healthcare model.

This being the case, our results suggest that professionals should reconsider the importance of family companions in the ICU during a patient’s stay in this unit, as significant behavioral, emotional and physical benefits seem to be possible.

Brazil should be a reference when it comes to this type of open visiting. Further studies are needed to expand our knowledge as to how this affects the recovery of hospitalized patients.

Observing the effects of a family companion’s presence in the hospital led us to question how to improve the regulations on visiting hours and to consider the possibility of family members staying with patients during their hospitalization in an ICU.

It is necessary to take into account the various interconnected relationships that constitute this experience in order to understand its varying complexity along a continuum. Therefore, we must consider both the behavioral and
social aspects of these relationships at the phylogenetic, ontogenetic and cultural level.

We emphasize the need for professionals working in the area of intensive care to be aware of the environmental influences that affect the physical and nonverbal conditions of the patient. The presence of family companions in the unit reduced patients’ anxiety levels, improved their emotional balance and restored their active nonverbal communication, all essential to a patient’s care and recovery.

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