

KNOWLEDGE OF NURSES ABOUT *DELIRIUM* IN CRITICAL PATIENTS: COLLECTIVE SUBJECT DISCOURSE

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ABSTRACT: This is an exploratory, descriptive and qualitative study with the aim of analyzing the knowledge of nurses in an intensive care unit about delirium in critically ill patients. Study participants were fourteen ICU nurses from a public hospital. Data were collected through semi-structured interviews and analyzed using the Collective Subject Discourse technique. Five features were identified after data analysis: signs and symptoms, use of sedatives, physical restraint, environment and lack of professional preparation. It was found that nurses have doubts concerning delirium, its management in intensive care, the use of scales and nursing interventions. This study points to the need for education on the subject and further research on the management of delirium in nursing.

DESCRIPTORS: Intensive Care. *Delirium*. Cognition Disorders. Nursing Team. Nursing Care.

CONHECIMENTO DE ENFERMEIROS SOBRE *DELIRIUM* NO PACIENTE CRÍTICO: DISCURSO DO SUJEITO COLETIVO

RESUMO: Trata-se de uma pesquisa qualitativa, descritiva e exploratória, cujo objetivo foi analisar o conhecimento de enfermeiros de uma unidade de terapia intensiva acerca do *delirium* no paciente crítico. Os participantes da pesquisa foram quinze enfermeiros intensivistas de um hospital público. Os dados foram coletados mediante entrevista semiestruturada e analisados por meio da técnica do Discurso do Sujeito Coletivo. Da análise dos dados emergiram cinco discursos: sinais e sintomas; uso de sedativos; contenção física; ambiente; falta de preparo profissional. Verificou-se que os enfermeiros têm dúvidas sobre o *delirium*, seu manejo em terapia intensiva, utilização de escalas e intervenções de enfermagem. Aponta-se para a necessidade de educação sobre o tema e novos estudos sobre manejo do *delirium* para a enfermagem.

DESCRIPTORES: Terapia Intensiva. *Delirium*. Transtornos cognitivos. Equipe de enfermagem. Cuidados de enfermagem.

CONOCIMIENTO DE ENFERMERAS ACERCA DE *DELIRIUM* EN PACIENTE CRÍTICO: DISCURSO DEL SUJEITO COLECTIVO

RESUMEN: Se trata de un estudio cualitativo exploratorio descriptivo cuyo objetivo era analizar el conocimiento del personal de enfermería en una unidad de cuidados intensivos sobre el delirio en pacientes en estado crítico. Los encuestados fueron quince enfermeras, como un hospital público. Los datos fueron recolectados a través de entrevistas semi-estructuradas y analizados mediante la técnica del Discurso del Sujeto Colectivo. Análisis de los datos eran cinco discursos: signos y síntomas, el uso de sedantes, la restricción física, el medio ambiente, la falta de preparación profesional. Se encontró que las enfermeras tienen dudas sobre el delirio, su manejo en cuidados intensivos, el uso de escalas y las intervenciones de enfermería. Señala la necesidad de la educación en los estudios de asignaturas y otras en el tratamiento del delirio en la enfermería.

DESCRIPTORES: Cuidados intensivos. Transtornos de delirio. Transtornos del conocimiento. Grupo de enfermería. Atención de enfermería.

INTRODUCTION

Delirium is an acute or sub-acute neuropsychiatric disorder that affects consciousness, and is usually accompanied by some changes in the sleep-wake cycle. It presents different manifestations such as attentional deficits and secondary alterations of the cognitive function, among which, perception, memory, orientation and reasoning, as well as changes in the sleep-wake cycle and emotional disorders (depression, anxiety, fear, irritability, euphoria and apathy).¹ These manifestations have an abrupt onset, with varying intensity during the day, and also from one day to another.²

It often manifests in critically ill patients, hospitalized in Intensive Care Units (ICUs) due to risk factors such as age (usually in patients over 65 years old), the use of mechanical ventilation, performance of invasive procedures, sleep cycle interruptions³, systemic high blood pressure, alcohol consumption, metabolic disorders, uremia, hypoxemia, anemia, acidosis, as well as sight and hearing impairment, surgical interventions and the use of drugs such as morphine.^{4,5}

The relevance of delirium is not only due to its incidence, but also to its consequences.¹ The incidence of delirium has been found between 5% and 92% of patients, and it has been associated with high mortality rates, with increased length of stay and longer periods on mechanical ventilation, as well as functional and cognitive impairment in the long term.⁶

In order to achieve one of the objectives of nursing care, minimizing the incidence of delirium by means of quality of care at the ICU may improve clinical outcomes.⁷ However, this neurological disorder has received little attention from ICU professionals, especially for the fact that it is not the main reason for hospitalization.³ It is estimated that the treatment costs of delirium patients increases by 39% during stay at ICU and by 31% during hospital stay. Early detection of delirium is directly related to the degree of experience of the nursing team, and therefore, education is the basis for an effective intervention.⁸

Preventing delirium through the identification of risk factors, the observation of hospital conditions and severe diseases, as well as the rational use of sedation, among others, is essential for therapy provided to critically ill patients. Intensive care nurses play an essential role in this process

since they are permanently in touch with patients and can observe any changes in their mental status more accurately.³

In view of the above, the following question was raised: what do ICU nurses know about the identification, causes and management of delirium? Thus, this study aims to assess the knowledge of nurses of an ICU about delirium in critically ill patients.

METHOD

This is an exploratory and descriptive study, with a qualitative approach, conducted with nurses from an intensive care unit for adult patients, with 14 beds, located in a general hospital in the state of Santa Catarina, and which serves exclusively patients of the Unified Health System. The following inclusion criteria were used for this study: to be into professional practice during the time of data collection and have a minimum experience of six months in a healthcare service for critically ill patients. Of all 17 nurses who met the selection criteria, 14 accepted to participate in the study.

Data collection was conducted between October and December 2011, after the project was approved by the Research Ethics Committee of the Federal University of Santa Catarina, under protocol number 1007/10.

Data were collected by means of semi-structured interviews, in a silent and private room, chosen by the researcher and the participants. These meetings were recorded and subsequently transcribed and returned to the subjects for validation. For identification purposes, participants were given the letter N (for nurse), followed by a number corresponding to the sequence of interviews. The average duration of interviews was 30 minutes.

For data analysis, the methodological features of the Collective Subject Discourse (CSD)⁹ were: Key Expressions (KEs), or excerpts that reveal the essence of content of individual discourses; Central Ideas (CIs) describe in a summarized way the meanings of KEs in each discourse. The consistent set of KEs gives rise to a CI that is called Category. Anchoring (AC) is present when the speaker uses a generic statement to frame up a particular situation. The Collective Subject Discourse (CSD) is made of KEs from CIs, fitted into the same category.

From an operational point of view, in order to extract KEs from each analyzed discourse, a careful initial reading of the material was done, and subsequently everything that was considered relevant was underlined; in other words, the essence of each subject's thoughts was represented as such. To every KE found, a corresponding CI was extracted. The next step was the grouping of similar CIs, and for each grouping a unique CI was defined, which was called Category. For the construction of the CSD, the KEs of CIs that were fitted into a category were gathered. Therefore, the CSD is a synthesis speech, composed of a "collage" of KEs that have the same CI, and it is written in first person as if only one person was speaking.⁹

RESULTS

After data analysis, five CSDs came out: signs and symptoms; use of sedatives; physical restraint; environment; lack of professional preparation.

CSD 1 Signs and symptoms

Patients with delirium are those who wake up and have their heads in the clouds, you speak to them and they have a blank look. This can be delirium in critically ill patients. Sometimes, patients are confused and have episodes of restlessness. So, it happens in two ways: apathy or restlessness. Also, we stay watchful to changes in neurological and motor functions. Patients have incoherent behavior and give incoherent information (N1, N3, N7, N8).

CSD 2 Use of sedatives

Anticholinergics, opioids and benzodiazepines, especially when used in elderly people, must be closely watched, as they can lead to delirium. I think there is a lack of well-defined criteria regarding the use of sedatives. There are situations in which an intervention is necessary and patients have to be sedated. But sometimes, there is an overdose of sedation, especially in the night. Sedative drugs are free to use, if I want to have a bolus, increase the dose, there is no supervision, no one will see. Patients get a little agitated; there is not much patience or tolerance. If the Ramsay scale is below 5 or 6, the team asks for sedation, as this way patients do not disturb and are easy to treat (N1, N2, N4, N5, N9, N10, N11).

CSD 3 Physical restraint

I think there are no criteria, it is over used, sometimes it seems excessive, there should be more evaluation and questioning to make sure a patient needs to remain restrained. Sometimes, the nurse is the one who decides; and other times, the nursing technician, you know? It seems there is standardization and all patients have to be restrained. The idea is to restrain in order to ensure patient safety, but to what extent? Sometimes patients are confused and restless, you release them and they calm down. When patients are recovering from sedation and get restless, it can also be because of restraint. But I only release them when there is an agreement between team members, because it is a great responsibility; if something happens, it is always the nursing teams' fault. Sometimes it is better to have them restrained rather than extubated and then have them lose their lives. We know that in practice a restrained patient is less disturbing, but I believe this should be avoided because it can result in delirium (N1, N3, N4, N7, N11, N14).

CSD 4 Environment

There is a lot of noise in the ICU, and this favors delirium. It is full of noise, some of them are not necessary at all. Loud talks, especially at night, laughs, whatever. The place is always busy with people walking around too much. Loud music or loud TV. Particularly during the night, the ICU is not the ideal place for a person to rest, there is much noise, unnecessary lights. The more the room is closed, the scarier it gets to patients, less private, and all this favors delirium (N1, N4, N7, N8, N9, N13).

CSD 5 Lack of professional preparation

I believe there is a lack of guidance and study from our part; we need to search for it. We don't go deep enough to see whether it has to do with the pathology or if it is related to this or that drug or the environment. We need to know how to talk, how to guide. I think we have to know some resources to deal with patients, not only drug therapy or physical restraint. Patients need personal care, and I do try to talk, to calm them down, by explaining they are in an ICU, intubated, they are like this, restrained, and it is necessary to give treatment. A frequent reorientation must be provided to patients, avoiding unnecessary anxiety. Objects that patients are familiar with may help, as a link is established with reality. I also believe the presence of a relative is essential to reduce disorientation (N2, N4, N6, N12).

DISCUSSION

CSD1 shows that nurses identify patients in delirium by means of manifestations such as agitation, provision of incoherent information and apathy.

Delirium is a consciousness and cognition disorder that is characterized by decreased attention and secondary changes such as in perception, memory, orientation and reasoning. This disorder is developed in a short period of time and risk factors have been found in many studies, which include: old age, cognitive dysfunction, sensory dysfunction (sight and/or hearing difficulties), sleep deprivation, immobility, dehydration and use of sedatives.¹⁰

Although most professionals involved in the care of critically ill patients consider delirium as a common and serious event at ICUs, little is being done to diagnose it correctly so as to adequately manage the clinical situation.¹¹

There is little data available about current practices of nurses regarding the assessment of delirium, or even about qualification and potential knowledge barriers they might face. Continuing education and regularity of assessment depend on a better understanding on the topic by nurses,¹² as well as on the continuous development of research in the field.

A study found that sensitivity to identify delirium in ICUs is low without the use of screening tools.¹³ It is worth highlighting that early detection of delirium is directly related to the degree of experience of the nursing team, and therefore, education is the basis for an effective intervention.⁸

There are proposals on the use of an initial algorithm for delirium prevention that includes: team training, identification of factors of individual frailties, minimization of predisposing conditions imposed by hospital environment and severe illnesses, intervention through non-pharmacological components, and daily monitoring of sedation and of the occurrence of delirium.⁸ The lack of knowledge regarding the use of scales and the importance of an assessment made by ICU nurses was clear.

It is possible to provide qualification opportunities that foster learning on negative outcomes associated with delirium and the importance of routine evaluation. Clarification about the after effects of delirium will make nurses appreciate and understand the importance of early detection.¹⁴

Generally speaking, in CSD2, it was found that nursing professionals have difficulties in dealing with patients who are agitated and in delirium. The assertion that a sedated patient does not require so much attention was common, and that it is difficult to deal with psychomotor agitation and physical restraint at the ICU. One of the mentioned factors was the lack of adequate restrictions regarding sedation; a common complaint was that patients often have no adequate sedation at night, and this prevents them from resting, which is extremely important for delirium prevention.

Excessive sedation exposes patients to hemodynamic instability, extended mechanical ventilation, increased morbidity and the occurrence of delirium. Opioids and sedative agents, largely used in ICUs, are an important subgroup of drugs known to result in delirium.¹⁵ In a study carried out in Denmark¹⁶, patients who were given fentanyl had a ten-fold risk of having delirium, and the use of lorazepam was associated with a greater risk of triggering delirium.

In studies^{4,16} that assessed the development and the exacerbation of delirium related to the use of drugs, it was found that benzodiazepines (midazolam, lorazepam, diazepam) may cause paradoxical effects of agitation, hostility, aggressiveness and confusion; also, narcotics impair cognition and aggravate the disorder. Prophylactic use of haloperidol in patients with high risk of delirium may reduce complications.¹⁵ Other drugs, commonly used in intensive therapies such as propofol, meprobamate, morphine and anticholinergics (as atropine and hyoscine), also showed the potential to trigger delirium.⁴

The objective of sedation is to have, among others, a collaborative and quiet patient, sleeping properly, without pain and minimally anxious. Excessive sedation impairs cardio-respiratory function, reduces intestinal motility, increases the risk of pneumonia related to mechanical ventilation, thus increasing the length of stay in the ICU.⁷

CSD2 also demonstrated the concern and awareness regarding the adverse effects and excessive use of sedatives. There are few professionals who relate delirium to other drugs used in the ICU and who remember that anticholinergics and tricyclic antidepressants are commonly the cause of delirium.

In CSD3, it was observed that there is concern about the incorrect use of mechanical restraint, and at the same time, fear of the nursing

team being held responsible if anything happens to patients who are not restrained. The topic is not often addressed in the literature, which makes it difficult to prepare professionals to make decisions related to restraint in the ICU routine.

The absence of norms regarding the use of restraint in the hospital where this study was conducted makes a negative contribution to decision making and legal support of health professionals. Another point addressed by the group was the difficulty to get more adequate restrictions, with the aim to facilitate patients' motion and reduce their discomfort.

The use of restraints is a complex topic that goes beyond nursing care and comprehends physical, psychological, legal and ethical issues. According to the Royal College of Nursing, there is not a precise legal definition for restraints. However, broadly speaking, it means restriction or obstruction to freedom.¹⁷ The Joint Commission on Accreditation of Health-Care Organizations defines restraint as any method used to restrict the freedom of movement or normal access to the parts of the body.⁷ It is important to have a clear definition of restraint and share its meaning, raising awareness and emphasizing the use of restraint in daily practice of health professionals.

The literature that addresses the use of physical restraints highlights an expressive number of important issues that should be considered within critical care environments. Educational programs that include this topic emphasize care services that must be provided in cases of agitation and delirium. Preventive methods must be considered in comprehensive care and in the management of patients, and they include effective communication, strategies for reorientation, reduction of noise and patients' comfort.¹⁷

In a study¹⁸ whose objective was to understand intensive care from patients' perspective, physical restraint in bed was mentioned as an unsatisfactory aspect of hospitalization, and related to unpleasant or unfavorable feelings. They also mentioned as negative perceptions: loneliness, longing for family, fear of procedures and pain, shame in exposing their body, disorientation in time, difficulty to communicate, noise, witnessing other patients' suffering and fear of death.

Nursing Federal Council resolution number 427, of 2012, states that nursing professionals can only use physical restraint under the supervision of a nurse and in compliance with protocols es-

tablished by health institutions, except for urgent cases or emergencies. It is also recommended that physical restraint must be used when it is the only possible way of preventing harm to patients or to others, and it should not be extended nor used with the purpose of disciplining, punishing or forcing, or for the team's convenience.¹⁹

Another justification used by subjects was the prevention of accidental extubation as one of the reasons for restraints. A solution for this problem is the revision of guidelines for ICUs, to speed up weaning or consider tracheotomy, should the orotracheal tube cause agitation.²⁰

There are few studies about patients and relatives' perception on the use of restraint, which suggests that more research should be made in the future so as to evaluate the psychological effects of these restrictions.²¹ Critically ill patients are submitted to a heavy load of stress during treatment in intensive care.²² The severity of the disease, pain, therapeutic devices, anxiety, among others, are cumulative stress factors for patients and may cause a worsening of the underlying condition. In situations like this, keeping a good level of comfort and safety for patients is an essential element of treatment.¹⁷

In CSD4, discomfort and concern regarding noise within the unit was a consensus among participants. One of the factors is the large movement of people and professionals in the department, which results in uproar. In addition to this, lack of awareness to reduce noise within the team as a whole was also mentioned. The structural factor is a great obstacle to keep a silent environment, since beds are too close to the nursing unit, where employees do their work, such as preparing medicine.

There are studies²³⁻²⁵ pointing out that high levels of noise in intensive care result, among other problems, in irritability, muscle contractures, increased heart rate and blood pressure, and worsening of sleep quality, not only for patients but also for the nursing team.

In this context, nursing care may soften some aspects. Among these precautions, we can mention the use of light in order to maintain or restore the circadian cycle, which is a simple measure, although it is not frequently used.²⁶ Other measures include: use of hearing aid and glasses to make patients feel safer; appropriate removal of intubation and restraints; early mobilization in bed and rational use of physical and chemical restraints. It is important to think about the

patients' well-being and to maintain their dignity during daily care, as in bed baths, and respect their privacy whenever possible, as well as to provide effective communication and explanations about procedures.²⁷ The presence of the family can also help in this process by extending visiting hours, which would be very helpful to strengthen the patients' feelings of safety.

Sleep deprivation has an influence on recovery, on the ability to resist to infections; it results in neurological and respiratory problems, which can extend the duration of ventilation and the stay in the ICU. Pain, noise and discomfort, ventilation modes and drugs have been mentioned as the causes of sleep deprivation in critically ill patients.²⁸

As shown by CSD5, the group was not very receptive regarding the use of scales for tracking delirium, stating that this assessment is not the nurse's responsibility but the intensivist physician's. This has also been discussed in CSD1 before. Nurses are not aware of the importance of delirium prevention for critically ill patients. Underdiagnosis of the syndrome is closely related to the lack of knowledge, along with a series of erroneous practices, such as inadequate environment and abuse of sedation.

A study¹² carried out with 331 nurses from four ICUs with the aim to identify practices and perceptions of delirium assessment showed that the studied hospitals already had instruments to track delirium; however, less than half of the interviewees used them. The study found that the barriers reported for this non-use of assessment tools were their complexity and professionals' inability to examine sedated patients. Educational initiatives, focused on the improvement of professionals' ability to assess delirium are as important as those to assess pain and sedation.¹²⁻²⁰

The assessment method, called Confusion Assessment Method for the Intensive Care Unit (CAM-ICU) may be used by nurses to monitor delirium in patients on mechanical ventilation, with minimum training.²⁹⁻³⁰ The daily use of the CAM-ICU in critical care is a viable alternative and continuing education is useful to a successful implementation by promoting constant qualification and exchange of experiences by means of the tool. Although the ICU team may be quite reluctant to adopt a new method of daily assessment³¹, this method is made of a form that is easy to apply. In this form, the assessment of patients occurs in two steps that relate the monitoring of sedation to delirium: in the first step, sedation is assessed

through the Richmond Agitation and Sedation Scale (RASS). According to the score obtained in this scale, a second step is taken or not, which is an assessment of delirium. Patients who do not take the second step are those who are completely sedated and delirium assessment is impossible.³²

Delirium in ICU lacks not only valid tracking tools, but also awareness regarding its detection.¹³ In that sense, we highlight the importance of continuing education and the implementation of new tools to improve the quality of health care provided to ICU patients. Educational interventions may improve the skills of ICU nurses in the performance of a standardized assessment of delirium. Delirium tracking cannot be an isolated process of quality guarantee; therefore, a standardized approach should be included in the training of intensive care nurses. Finally, educational initiatives focused on the improvement of physicians and nurses' qualification in the assessment of delirium are as important as those for the assessment of pain and sedation, and they should be part of actions to improve health care services provided to critically ill patients.¹²

CONCLUSION

In the analyses of collective subject discourses that came out of this study, a lack of knowledge from intensive care nurses was noticed. Delirium requires not only a scientific knowledge for its prevention and control, but also structural and behavioral changes from professionals. Delirium conditions are a clinical emergency and have an important impact on ICU patients' survival, and for this reason, the knowledge of the multi-professional team is essential in this process.

Professionals also showed that they are aware of the need to improve their qualification through training on the topic. Being aware that delirium is a serious issue and that it may increase mortality, among other complications, makes it possible to implement effective actions for early prevention.

All professionals who take care of critically ill patients must be aware of risk factors, related both to the environment (changeable) and to chronic diseases. To change positively the environment of intensive care in order to make it less hostile and to humanize care services is a goal that nursing may achieve, along with better management of sedation, which should be discussed between the concerned professionals.

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Received: July 03, 2014
Approved: October 14, 2014