

Nurses' Strategies used by nurses to prevent delirium in intensive care units

Estratégias utilizadas por enfermeiros na prevenção de delirium em unidades de terapia intensiva

Estrategias utilizadas por enfermeros en la prevención del delirio en unidades de cuidados intensivos

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ABSTRACT

Objective: to investigate nurses' strategies to prevent delirium in intensive care units. **Method:** this was a qualitative, descriptive, and exploratory study carried out in the five regions of Brazil. Twenty-five intensive care nurses took part in the study. Data was collected through semi-structured interviews and then submitted to discursive textual analysis. **Results:** nurses play a crucial role in establishing strategies to prevent delirium, which have been grouped into three categories: (1) patient/family education and guidance; (2) environmental factors; and (3) family presence. **Conclusion:** the nurses' strategies make it possible to prevent delirium, providing a safe and humanized place for patients during their stay in the intensive care unit.

Keywords: Nursing; Intensive Care Unit; Delirium; Nursing Care; Critical Care.

RESUMO

Objetivo: investigar as estratégias utilizadas por enfermeiros na prevenção de delirium em unidades de terapia intensiva. **Método:** estudo qualitativo, descritivo e exploratório, realizado nas cinco regiões do Brasil. Participaram do estudo 25 enfermeiros intensivistas. Os dados foram coletados por meio de entrevista semiestruturada e, posteriormente, submetidos à análise textual discursiva. **Resultados:** o enfermeiro tem papel crucial no estabelecimento de estratégias para a prevenção do delirium, as quais foram agrupadas em três categorias: (1) educação e orientação ao paciente/familiar; (2) fatores ambientais; e (3) presença do familiar. **Conclusão:** as estratégias utilizadas pelos enfermeiros possibilitam a prevenção do delirium, proporcionando um local seguro e humanizado para o paciente durante o período de internação na unidade de terapia intensiva.

Descritores: Enfermagem; Unidade de Terapia Intensiva; Delirium; Cuidados de enfermagem; Cuidados Críticos.

RESUMEN

Objetivo: investigar las estrategias utilizadas por los enfermeros en la prevención del delirium en unidades de terapia intensiva. **Método:** estudio cualitativo, descriptivo y exploratorio, realizado en las cinco regiones de Brasil. Participaron en el estudio 25 enfermeros intensivistas. Los datos fueron recolectados a través de entrevistas semiestructuradas y, posteriormente, sometidos al análisis textual discursivo. **Resultados:** el enfermero tiene un papel crucial en el establecimiento de estrategias para la prevención del delirium, las cuales se agruparon en tres categorías: (1) educación y orientación al paciente/familiar; (2) factores ambientales; y (3) presencia del familiar. **Conclusión:** las estrategias utilizadas por los enfermeros permiten la prevención del delirium, proporcionando un entorno seguro y humanizado para el paciente durante el período de internación en la unidad de terapia intensiva.

Descriptores: Enfermería; Unidad de Terapia Intensiva; Delirium; Cuidados de Enfermería; Cuidados Críticos.

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Introduction

Delirium is an acute neurological condition characterized by transient disturbances in consciousness and cognition. It is manifested by a fluctuating mental state, with inattention and disorganized thoughts, usually of limited duration.¹ According to the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), four main characteristics define delirium: (1) disturbance in consciousness, resulting in reduced perception of the environment and difficulty focusing, maintaining or switching attention; (2) cognitive changes or the appearance of perceptual disturbances, not justified by pre-existing dementia; (3) rapid development of the disturbance, with fluctuations throughout the day; and (4) the presence of an identifiable etiological cause.²⁻³

The incidence of delirium is considerably high among mechanically ventilated patients, reaching up to 80%, and is associated with a significant increase in mortality. Studies indicate that patients who develop delirium in the intensive care unit (ICU) have a three times higher risk of mortality in the first six months after critical condition.⁴ Between 30 and 73.4% of elderly patients admitted to the ICU experience at least one episode of delirium during their stay. The high incidence is related to a combination of factors such as patients over 65 years of age, in hospitals and especially in ICUs, which can lead to various complications such as long-term cognitive and functional impairment, prolonged hospitalization, and institutionalization. As delirium is often confused with dementia in elderly patients and is difficult to diagnose, it increases the risk of mortality and morbidity and the cost of treatment, with prevention being the most effective strategy.⁵⁻⁶

The risk factors associated with delirium can be classified into two distinct groups: baseline factors, related to the patient's intrinsic characteristics and comorbidities; and environmental factors, linked to hospital conditions, such as the severity of the disease, the treatment used, and the management of the ICU. These risk factors interact in a complex way, triggering delirium in specific patients. Less vulnerable individuals may need more intense stimuli to develop the condition, while those who are more susceptible may manifest it even in the face of less significant triggering factors.²

Robust risk factors for developing the disorder include advanced age, cognitive impairment, severe comorbidities, and the use of medication. The risk factors for developing delirium can be divided into “predisposing factors”, which include factors such as age over 65, male gender, previous cognitive impairment, depression, visual or hearing impairment, high severity score on admission, alcoholism, and smoking, systemic arterial hypertension, malnutrition, and polymorphism. And “precipitating factors”, related to the use of catheters, mechanical restraint, sleep deprivation, respiratory disease with hypoxemia, use of

benzodiazepines, anemia, hydroelectrolytic alterations, use of psychoactive drugs, pain, sepsis, and ICU admission.⁶

Delirium can manifest clinically in three different ways: hyperactive, hypoactive, and mixed, all of which share characteristic symptoms such as confusion and inattention. In hyperactive delirium, the patient exhibits an agitated mental state and may show symptoms such as aggression and restlessness. In contrast, in hypoactive delirium, the patient shows an apathetic mental state, with symptoms of lethargy, depression, and stupor. In mixed delirium, the patient oscillates between hyperactive and hypoactive states. Studies indicate that hypoactive delirium is associated with a worse survival prognosis than the mixed and hyperactive forms of the disorder.⁷

The diagnosis of delirium is commonly made through clinical examinations at the bedside, using validated tools. These include the Confusion Assessment Method (CAM), which is widely used both to screen for and diagnose delirium by qualified professionals and is often administered by nurses. This test has an estimated execution time of between 1 and 2 minutes and shows good psychometric properties.⁸ A study carried out in China with 237 ICU nurses revealed that 51.5% of the professionals chose to use some assessment tool after identifying symptoms, with the CAM-ICU being the most commonly used.⁹

The treatment of delirium requires a multidisciplinary approach, integrating pharmacological and non-pharmacological strategies. Non-pharmacological interventions include early mobilization, the presence of family members, maintaining the sleep-wake cycle, and temporal and spatial orientation. When these measures are not sufficient, the use of drugs can be considered as a subsequent therapeutic option, such as non-benzodiazepine sedatives (e.g. propofol, dexmedetomidine, and clonidine) or antipsychotics (e.g. haloperidol and quetiapine). However, evidence of the effectiveness of these drugs in reducing the incidence of delirium is still limited.¹⁰

In the ICU, sedatives and opioids are often administered to provide patient comfort and facilitate synchronization with mechanical ventilation. A recommended strategy to reduce overuse is to implement daily breaks in the administration of these drugs. Although pharmacological interventions are easier to manage compared to non-pharmacological interventions, there are currently no drugs with proven efficacy for the prevention or treatment of delirium.²

Patients who develop the disorder face an increased risk of prolonged mechanical ventilation, longer ICU stays, removal of invasive devices, self-extubation, the need for physical restraint, additional costs for the healthcare system, mortality, and the possibility of institutionalization after discharge.² In addition, delirium has a significant impact on the

patient's family. Therefore, healthcare professionals, especially nurses who maintain direct and prolonged contact with patients, must promptly identify changes in behavior and act assertively to improve prognosis. Knowledge of the possible triggers of delirium in patients admitted to intensive care units is essential.¹

In critically ill patients, the incidence of delirium is significant, ranging from 18.9% to 68.3%, especially among those on mechanical ventilation. The disorder is associated with higher morbidity and mortality, longer hospital stays, and functional deterioration. However, this condition is not usually identified and treated systematically in health services.⁸

Hospital mortality among patients with delirium ranges from 25% to 33%.¹⁰ Those who develop the syndrome report more frequent difficulties in daily activities and have lower scores on sensory-motor function tests, indicating greater cognitive impairment after ICU admission. These sequelae manifest themselves mainly in the form of functional disability and mental health problems such as anxiety, depression, and post-traumatic stress disorder.^{11,12}

Considering that nursing plays a crucial role in minimizing the incidence of delirium, mainly through the early identification of risk factors and changes in the level of consciousness, it is opportune to understand the nurses' strategies to prevent this condition.

From the above, the objective is to investigate the nurse's strategies for preventing delirium in the ICU.

Method

This is a qualitative, descriptive, and exploratory study, guided by the guidelines of the Consolidated Criteria for Reporting Qualitative Research (COREQ) guide,¹³ which aims to interpret and analyze meanings from the perspective of the participants, considering their contexts and subjectivities.¹⁴

The research involved 25 intensive care nurses from the five regions of Brazil (North, Northeast, Midwest, Southeast, and South), selected intentionally until data saturation was reached, that is, when new information ceases to emerge, without adding understanding to the object of study.¹⁵

Data was collected between August and October 2023 through individual online interviews using the *Google Meet* platform. The interviews, which lasted an average of 30 minutes, were conducted by the main author and audio-recorded with the participants' permission. This approach aimed to facilitate the participation of intensive care nurses from the five regions of Brazil, promoting geographical inclusion and the convenience of participants.

The questions were pilot-tested with four nurses who were not part of the study sample, to ensure clarity and data collection. The script, which included questions about the participants' sociodemographic aspects and delirium prevention, allowed the perceptions of intensive care nurses about the strategies used to be explored to cover important information related to understanding the phenomenon studied.

The study included nurses who had worked for more than six months in intensive therapy in public and/or private sector institutions. This period was established because six months is the minimum necessary for professionals to become familiar with the ICU environment and its institutional routines, allowing them to act autonomously in the care process. Nurses who did not provide care or who held management or administrative positions in the ICU were excluded.

The invitation to participate was sent via e-mail and social networks. After accepting, each participant was taken to a virtual room, where their privacy was maintained. Prior appointments were made according to availability. It should be noted that the data was obtained from professionals from all five Brazilian regions, which motivated the interviews to be carried out in a virtual environment.

The interviews were transcribed to compose the corpus and the data was submitted to discursive textual analysis, which establishes the exercise of interpretation and reconstruction of meanings with emphasis on the perspective of the subjects involved in the research.¹⁶ It is understood, however, that understanding the data seeks to transform reality from the perspective of the subjects taking part in the investigation. This requires an interpretation that does not start from outside the phenomenon being investigated. Thus, the analytical development occurred in three fundamental stages: unitarization of the texts; categorization; and communication.¹⁴

In the unitarization phase, the interviews were thoroughly analyzed and fragmented to identify units of meaning. During categorization, relationships were established between these units, resulting in the answers being organized into three distinct categories: (1) patient/family education and guidance; (2) environmental factors; and (3) family presence. Finally, in the communication stage, a comprehensive understanding of the phenomenon under investigation was developed, resulting from the combination of the elements built up during the previous stages.

The study was approved by the Research Ethics Committee and complied with Brazil's ethical recommendations under opinion no. 6.069.259. To preserve their identities, the participants were identified only by their geographical region (North, Northeast, Midwest, Southeast, and South) followed by the sequential number of the interviews.

Results

Of the 25 intensive care nurses interviewed, the majority were female (68%) and specialized in intensive therapy (80%). Approximately 48% were employed by public institutions and 52% by private institutions. The length of time they had worked in ICUs ranged from 6 months to 16 years. The working environment generally had an average of 21 beds and offered some tools for patient care and comfort, such as windows, clocks, televisions, and sleep hygiene care. Regarding training, 52% of participants reported that it took place in the ICU, but only 32% used specific assessment tools for delirium, such as the CAM-ICU, or had specific protocols for this condition.

Strategies for preventing delirium will be presented below, divided into three categories: (1) patient/family education and guidance; (2) environmental factors; and (3) family presence.

Patient/family education and guidance

Educating and guiding patients and their families is fundamental to preventing delirium in the ICU. By providing clear information about the hospital environment, the procedures to be adopted, and the patient's health conditions, the healthcare team enables family members to actively participate in care, helping to mitigate the confusion and disorientation caused by the disorder. The nurse plays a central role in this pedagogical process, establishing bonds and identifying specific information from patients to help reduce symptoms.

"When he starts to wake up, the nursing technician has the job of situating the patient where he is, in time and space, explaining what has happened, why he is in the ICU, so that he is calm and we can have greater (sic) success in reducing the sedation of this patient." (SOUTHEAST/3).

"I believe that talking to the patient, assessing their level of consciousness, assessing their orientation, whether they know where they are, who they are, what's going on, explaining all the procedures that are carried out, as well as trying to maintain a dialogue with the patient, offering psychological support too, because we know that when patients are hospitalized for a long period, their mental health is greatly affected." (NORTH/3).

"We carry out a constant cognitive assessment. We also use affective medical records, where we discover unique information to be able to access the patient and recover their memories and sensory stimulation. In addition, we always advise family members about conversations with the patient, preventing them from bringing sad news at the time of admission to the ICU, and we do this continuously, because today it's family member 'Pedro' who comes in the morning, and in the afternoon it will be 'Maria'." (SOUTH/5).

"I believe that when the nurse assesses the patient, it is essential to check their level of consciousness and give them guidance." (SOUTHEAST/1).

"Guiding the patient when they wake up, explaining where they are and why. We inform them of the date and time. When possible, we encourage conversations with family members via video call. And the environment is suitable, with daylight." (MIDWEST/3).

"We have a clock on each bed in the intensive care unit. This way we can guide the patient about the shift (morning, afternoon, and night), being able to situate the patient in time and space." (SOUTH/3).

"[...] we work by talking to the patient, situating him (sic) in time and space, asking if he knows what day it is, a little more in-depth dialog, making a bond to try to identify these other aspects of delirium as well." (SOUTHEAST/5).

Family members' understanding of the patient's clinical condition is crucial in preventing delirium in the ICU. By providing emotional support and close monitoring, family members contribute to creating an environment conducive to the patient's recovery during the hospitalization period.

"We have a meeting with the family members, so we did some guidance with them. We explain that the patient may have delirium, what they should do, how to act, how to try to guide the patient, try to keep calm and not get scared." (SOUTH/2).

"We guide family members to have patience with the patient. Generally, they feel insecure, the family also gets impatient, so we advise the family to understand the patient's new condition, to pay attention, to take care when they are agitated." (NORTH/2).

"We need to develop alternatives to improve patient care about delirium, to enable the patient to be discharged from the ICU in a better condition in terms of cognition, and also to prevent family members from being so scared, either during daily visits or at the time of transfer to the inpatient unit. Family members need guidance to understand what is happening to the patient and thus be able to help by guiding the patient." (MIDWEST/1).

"Among the nursing care provided to patients with delirium, it is also necessary to focus on guiding the family to prevent falls and [to] prevent the accidental removal of devices, since, once a complication occurs, nursing care time increases and the patient's stay in the ICU is extended." (NORTHEAST/1).

Environmental factors

The work of the nursing team is essential for adapting to the environment, enabling both recovery and the prevention of delirium. Furthermore, effective intervention in the management of the disorder, when necessary, contributes significantly to improving the patient's experience during the critical period of hospitalization.

"At the moment of disorientation or loss of sense of reality caused by delirium, whether due to medication or confinement in the ICU and often there is no point of orientation for this patient, such as a clock, television, window, then he loses his sense of reality, of the environment where he is." (NORTHEAST/1).

"Several factors can influence the development of delirium in addition to organic alterations, such as: sedation time; prolonged intubation and mechanical ventilation; being in an unfamiliar environment; sleep deprivation; exchanging night for day; being with people who are not part of your daily life; and also all the staff wearing the same clothes." (SOUTH/1).

"Since we have a patient profile in which the family is usually very present, we try to talk to these family members and authorize radio, television, and crossword puzzles. We also have clocks in each bed. The team of physiotherapists also mobilizes patients to walk around, to get out of bed a bit, because sometimes what they see is only through the bedroom window, which isn't enough." (MIDWEST/1).

"The strategy I use the most is to take patients, when possible, to a part of the ICU where there are windows. We also have television and some clocks on the walls, but not all of them work." (NORTHEAST/1).

"We work a lot with music to provide well-being for the patient. All the beds have a clock on them so that the person can get a sense of the time. Patients who wear hearing aids, we try to implement this, or those who don't wear hearing aids, but wear glasses, also use this device to give the patient better visual acuity, which can be one of the factors that can trigger [delirium] as well." (SOUTHEAST/5).

The ICU, due to its intensive and technological nature, can be disorienting for patients, increasing the risk of developing delirium. It is therefore essential to establish an environment that promotes orientation, tranquility, and comfort. In this sense, strategies such as adequate lighting control, establishing regular sleep patterns, reducing harmful noise, and encouraging humanized interactions are fundamental.

"Reduce the lights at night and leave the lights on during the day. If the patient wears a hearing aid or glasses, the family [should] bring them. Mobilize the patient during the day and leave them in bed so they can sleep at night." (SOUTH/1).

"Reducing the lights as much as possible and the noise so [that] the conscious patient can perceive [when] it's time to go to sleep. To do this, we reduce the lighting and the volume of monitor alarms." (NORTHEAST/1).

"At night, we turn off the lights in the ICU and leave only the nursing station lights on so that these patients understand that it's night and can sleep." (MIDWEST/5).

"Nowadays, in the ICU, reducing light and noise is something we work on every day. We reduce the light in the ICU after lunch, close the curtains in the ICU, turn off the lights as much as possible, and leave one light very low and we've noticed that this calms the patient down a lot. It's a measure that doesn't cost the hospital anything and it's better for the nursing staff, it's better for the patient, because it reduces delirium." (SOUTHEAST/3).

"When we do the nursing process, we write it down in the planning and the interventions: reduce noise, reduce light, don't turn on the TV after 10 pm, minimize sounds, monitor alarms, infusion pump, avoid talking in the lounge after 10 pm." (NORTHEAST/3).

"In the evening, we talk to the medical team to align some things and ask them about checking vital signs. Patients without vasoactive drugs and who are stable can have their signs checked every three hours or every two hours, so as not to disturb their sleep." (SOUTH/1).

Family presence

The active presence of family members in the ICU plays a crucial role in preventing delirium in critically ill patients. By providing emotional comfort, psychological support, and a connection with reality, family members contribute to the emotional stabilization of

patients, reducing the risk of delirium. The participants in the research highlighted the importance of the family's continued presence during hospitalization.

"We have a policy of humanization within the intensive care units, and if we see that it's important for the family to stay at that moment. This is part of the treatment, of comprehensive care. We understand that the family's presence is important at all stages of illness, especially when it has the potential to develop delirium." (SOUTH/3).

"Visiting hours are distributed according to the beds with a schedule of visiting hours and the companion can have an extended visit. This allows the family to spend more time with the patient." (NORTH/3).

"We make visiting time more flexible. In one of the ICUs I work in, there is an open visiting policy, where the companion stays the whole time. In the other ICU, we have two visiting hours and we try to extend them when the patient starts to show delirium." (NORTHEAST/3).

"The flexibility of the family member being able to be there early in the morning, when the patient wakes up, being able to give them coffee, then having a visit, staying there for an hour, for example, half an hour, then coming back at the end of the morning, accompanying lunch, in the evening, if a family member wants to come and accompany them, staying until the patient goes to sleep, so that they feel safe, welcomed, that there are people of reference for them." (SOUTH/5).

"It is established in the institution that visiting hours are only one hour; however, we often make exceptions, because we know from evidence and experience that if the companion can stay a little longer, it brings comfort to the patient when they are more stable. We have cases where the family member is unable to come at visiting time because they no longer have transportation to return to their hometown, so we allow them to come earlier or later, depending on the situation." (NORTHEAST/1).

"A companion can stay from 9 a.m. until 9 p.m., 12 hours of visit. There's also the social visit, which can take up to three people per time slot, morning, afternoon, and evening, for two hours per time slot, so that the patient has people from their social circle coming to visit them." (SOUTH/1).

"Even though we have pre-established visiting hours in the morning and afternoon, half an hour for each shift, there is the possibility of a special assessment by the nurse." (SOUTH/5).

"I think the main thing is to have the family in the ICU the whole time, or as long as the family can stay so that the patient has someone of reference to them." (SOUTH/1).

Discussion

The prevention and effective management of delirium requires an individualized approach, in which nurses play an essential role in the early identification of behavioral changes, which is fundamental to preventing the onset of the syndrome.¹⁶ Considering the multifactorial nature of delirium, interventions must be adapted to each patient's specific needs. It is crucial to identify and treat triggering and contributing factors early on since many of them are preventable and iatrogenic.¹²

A systematic review of 10 randomized clinical trials and 25 non-randomized studies investigated non-pharmacological practices to prevent delirium in critically ill patients to identify the most effective interventions. Moderate certainty evidence indicated that the use

of multicomponent interventions such as sensory stimulation, sleep promotion, early mobilization, and family participation are associated with a reduction in the incidence of delirium.¹⁷

The validation study of a multi-professional protocol for managing ICU patients with delirium concluded that cognitive guidance, although easy to implement – as it does not require financial investment and structural changes – requires training and commitment from the team to be applied.⁸ However, this should not only be limited to patients: it is essential to train and instruct family members to be active participants in care, improving staff performance and communication by providing important information about the patient's condition and keeping the focus on individualized care in the ICU. This intervention can lead to the early identification of delirium and a reduction in the psychological and emotional stress burden among family members. For communication to be effective, a simplified and concrete discourse should be used, avoiding quick communication.¹⁸

Sensory stimulation strategies to eliminate or reduce the risk of developing delirium, such as using photographs of patients' relatives, calendars, and clocks, ensuring a calm and relaxing environment, using appropriate lighting, and reducing noise are of great importance in preventing the disorder.⁵ Among the strategies highlighted are reorientation, cognitive stimulation, the use of watches, and the mitigation of hearing and/or visual impairments through devices such as hearing aids and glasses. It is essential to ensure the use of these prostheses, especially in elderly patients, to promote communication and interaction, avoiding sensory deprivation. These interventions aim not only to reduce or shorten delirium but also to improve patients' quality of life by facilitating communication and interaction, key factors in the prevention and effective management of this condition.^{5,19}

Promoting autonomy aims to mitigate the symptoms of delirium. Nurses should encourage patients to take part in daily activities, such as personal hygiene, eating, and moving around in bed, to maintain routines and reduce mental confusion. These practices are essential for the prevention of delirium, as they help maintain patients' temporal and spatial orientation, reducing the incidence and severity of delirium.⁴

To prevent delirium, it is essential to create a more familiar environment for the patient, which can be achieved both by the presence of people they know and by introducing objects from their everyday life. Family members accompanying or visiting the patient should be instructed to interact verbally, help with temporal and spatial orientation, and provide emotional support.¹⁸

Environmental factors directly influence the physiology, psychology, and social behavior of individuals, making it essential to adapt environments such as the ICU to

improve patient outcomes. Recommendations for an ideal environment include separation of ICU equipment, such as alarms and monitors, to control noise; beds oriented towards windows, allowing day and night light to be seen, as well as nature, thus favoring the circadian rhythm; screens that allow the use of television and cognitive exercises; display of calendars, clocks, and picture frames to improve orientation; and an area dedicated to the family. Such modifications can minimize stressors and help prevent and manage delirium.¹²

Although crucial for recovery, the quality of sleep in the ICU is often compromised. Factors that play a significant role in this deterioration include noise, frequent disturbances, administration of drugs that alter sleep, and inadequate lighting.^{19,20}

The exposure of patients to high noise levels in ICUs contributes to sleep disturbances and the development of delirium. Sleep deprivation in healthy individuals causes inattention, fluctuations in mental capacity, and cognitive dysfunction, characteristics that are also observed in patients with delirium. Poor sleep quality has been suggested as a potential modifiable risk factor for delirium, justifying the implementation of measures to promote adequate sleep to maximize the benefits to patients.²⁰

Proper management of the environment can considerably reduce delirium. Healthcare institutions must adopt principles that guide and adjust hospital routines and infrastructure to this end. Viable strategies include allowing the elderly patient access to natural light, avoiding the use of bladder catheters whenever possible, and accommodating the elderly in less stressful sectors. These measures can have a significant impact on the quality of health care for the elderly, resulting in a reduction in the incidence of delirium, the severity of cases, and mortality.²¹

A quasi-experimental study with two independent, non-randomized groups involving 60 patients aimed to examine the effect of environmental modifications on the prevention of delirium in elderly ICU patients. In the intervention group (30 patients), improvements were made to the sound level, the use of a bright light, a visible calendar and clock, and the use of glasses and hearing aids were allowed. In the control group (30 patients), no additional modifications were made. The results showed that the average sound level was higher in the control group, and the frequency of delirium in the ICU was 56.7%, 2.32 times higher in the control group, concluding that a specific care package can significantly reduce the risk of delirium in elderly ICU patients.⁵

Preventive sensory stimulation interventions for delirium include preventing sensory deficiencies by using glasses and hearing aids, facilitating access to communication devices, and promoting temporal orientation in the hospital environment, as well as reducing noise and promoting sleep, with established rest times and a night environment adjusted to

minimize stimuli. Regarding environmental factors, reducing invasive procedures, avoiding mechanical restraints, initiating early mobilization, and promoting self-care are essential practices recommended for the prevention of the disorder.²²

The presence of family members in the care of ICU patients is associated with a reduction in the incidence of delirium and an improved understanding of the patients' clinical situation. Family involvement promotes a more welcoming environment, reduces isolation, and stimulates family cohesion, contributing to the safety and quality of the care provided. Nurses' positive attitude towards family participation is essential for creating a culture of inclusion and support, resulting in benefits for both the quality of nursing care and family compliance and patient safety.²¹

The inclusion of the family in the intensive care environment has also been associated with a reduction in the need for physical restraint of patients. Although it may be necessary in certain situations to prevent adverse events, effective communication between nurses, the multidisciplinary team, patients, and their families is recommended to favor the more careful application of this measure.²³ Lack of understanding on the part of family members about restrictions on visits, intubation, or sedation of patients can lead to mistrust of the healthcare team and lack of communication between healthcare professionals and family members can limit cooperation.²⁴

A social support network is crucial for reinforcing feelings of well-being and increasing support for coping with crises. In this context, the involvement of users and their families encourages active participation and ownership of care, thus counteracting the medicalization of suffering. Institutional flexibility, by allowing family members to stay during hospitalization, makes it possible for them to act as a health unit for their members, since the family can be the first to observe changes and take action to alleviate symptoms, playing a crucial role in patient care.²⁴

A flexible visitation policy for family members in the ICU has been recommended by the guidelines of professional societies as an important step toward patient and family-centered care. Flexible visiting hours can contribute to the prevention of delirium, reduce stress, and improve family satisfaction. However, some ICUs still adopt restricted visitation models, possibly due to concerns about the risks associated with unrestricted visiting hours, such as disorganization of care, infectious complications, and staff burnout.²⁴

The flexibilization of visiting hours, recommended and encouraged in intensive care, deserves to be highlighted in the nurses' statements. This practice, which allows family presence at different times, has the potential to reduce symptoms of delirium and anxiety and improve family satisfaction.¹⁸ Active involvement of the family in the patient's care, with

support during visits and participation in cognitive stimulation activities is encouraged to improve clinical outcomes and patient comfort.²²

Finally, the presence of the family also contributes to reorienting the patient and providing emotional support. Although this intervention can have varying effects, creating a more familiar environment for the patient is a recommended strategy for preventing delirium.¹⁹ Therefore, providing family members with information about delirium is fundamental to increasing understanding of care and improving family participation in treatment. The family, being a historical, representative, and fundamental entity for human life, plays a crucial role in the implementation of non-pharmacological practices. The inclusion of and effective communication with family members is essential for the prevention of delirium in the ICU.²³

The limitations of the study are related to geographical representativeness and the interpretation of the results regarding the generalization of the strategies. However, the study contributes significantly to understanding nurses' practices in the prevention of delirium, suggesting improvements in health services and emphasizing the importance of collaboration between staff, patients, and family members for adapted and humanized care.

Conclusion

Analysis of the results and the strategies adopted by nurses to prevent delirium in ICUs across the country highlights the importance of a multifaceted approach involving patient and family education, management of environmental factors, and family integration. The research also recognizes the need for specific interventions to address delirium, despite structural and organizational limitations.

The active participation of family members, trained to understand and interact with patients in an informed manner, is fundamental to mitigating symptoms. Flexible visiting hours and the inclusion of family members in the care process increase patients' sense of security and emotional support.

ICU environments properly lit, quiet, and that promote patients' temporal and spatial orientation are essential. Strategies such as the use of clocks, televisions, and windows for natural light, and the implementation of music as a resource to provide the patient with well-being, contribute to creating an environment that favors recovery and reduces the risk of developing delirium.

Authors Contributions

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Conflict of interest

There are no conflicts of interests.

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