

## Prevention and monitoring of delirium in older adults: an educational intervention

*Prevenção e monitorização do delirium no idoso: uma intervenção educativa*  
*Prevención y monitorización del delirium en personas mayores: intervención educativa*

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### ABSTRACT

**Objective:** to conduct an educational intervention with the nursing team members of an intensive care unit (ICU), aiming to increase knowledge and to introduce improvements in their practices regarding prevention and monitoring of delirium in older patients. **Method:** this is an action research, in which workshops were conducted with eleven nurses and a nursing technician from an ICU unit in Salvador, Bahia, Brazil. **Results:** ten problems regarding nursing practices for prevention and monitoring of delirium were identified. Educational, practical, technical, and managerial actions were planned, involving cross-sector connections for planning ways to solve these problems. The groups reported significant changes in the practices, with the implementation of drug-free measures for preventing and managing the situation. **Conclusion:** the educational intervention contributed to improve the nursing practices in the ICU unit studied, and it also favored the development of critical thinking about the problems mentioned, thus enabling permanent review of offered treatments.

**Descriptors:** Delirium; Dementia; Amnesic Disorder, and Other Cognitive Disorders; Older adults; Nursing Team.

### RESUMO

**Objetivo:** realizar uma intervenção educativa com membros da equipe de enfermagem de uma unidade de terapia intensiva (UTI), com vistas a ampliar o conhecimento e introduzir melhorias nas suas práticas de prevenção e monitorização do *delirium* nos pacientes idosos. **Método:** pesquisa-ação em que foram realizadas oficinas com onze enfermeiras e uma técnica em enfermagem de uma UTI de Salvador, Bahia-Brasil. **Resultados:** dez problemas relacionados a práticas de enfermagem para prevenção e monitorização do *delirium* foram identificados. Planejaram-se ações de caráter educativo, prático, técnico e gerencial, envolvendo a articulação intersetorial para o equacionamento desses problemas. O grupo relatou mudanças significativas nas práticas, com a implementação de medidas não farmacológicas para prevenção e gestão do quadro. **Conclusão:** a intervenção educativa contribuiu para a melhoria nas práticas da enfermagem da UTI pesquisada, assim como favoreceu o desenvolvimento da consciência crítica acerca da problemática levantada, possibilitando a revisão permanente do cuidado ofertado.

**Descritores:** Delirium; Demência; Transtorno Amnésico e Outros Transtornos Cognitivos; Idoso; Equipe de Enfermagem.

### RESUMEN

**Objetivo:** realizar intervención educativa en un personal de enfermería de una unidad de cuidados intensivos (UCI), con el objetivo de ampliarles conocimiento e introducirles mejoras en sus prácticas de prevención y monitorización del *delirium* al tener a las personas mayores como pacientes. **Método:** investigación-acción en la que se llevaron a cabo talleres con 11 enfermeras y 1 técnica de enfermería de una UCI de Salvador de Bahía. **Resultados:** se identificaron diez problemas relacionados a las prácticas de enfermería en la prevención y monitorización del *delirium*. Se planearon acciones educativas, prácticas, técnicas y de gestión, que implican la articulación intersectorial en la resolución de los problemas. El grupo señaló cambios

significativos en las prácticas, con la implementación de medidas no farmacológicas para prevenir y gestionar el cuadro clínico. **Conclusión:** la intervención educativa contribuyó a la mejora de las prácticas de enfermería en la UCI investigada, así como le permitió desarrollar al personal la consciencia crítica sobre el problema, lo que les posibilita una revisión permanente del cuidado prestado.

**Descriptores:** Delirium; Demencia; Trastorno Amnésico y Otros Trastornos Cognitivos; Personas Mayores; Personal de Enfermería.

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## INTRODUCTION

Defined as an acute and fluctuating disorder of consciousness and cognition, delirium is considered to be the most frequent neurobehavioral disorder in hospitalized older patients, and it may affect from 56% to 72% of inpatients in intensive care units (ICU)<sup>(1-2)</sup>. Not only does its relevance result from the expressive incidence/prevalence in these individuals, but also from its impact on morbidity and mortality, increased hospital costs, risk of dementia, and institutionalization after patient discharge<sup>(3-4)</sup>.

Regarding its clinical manifestations, patients during delirium episodes may have sleep-wake cycle disorders, emotional alterations, memory loss (mainly short-term), delusions, misled interpretations, and inability to cooperate. Their clinical condition fluctuates throughout the day, and their delirium signs are generally increased during late afternoon and nighttime periods, when there is a reduction in orientation stimuli. Due to this variety of clinical signs, this disorder is classified according to psychomotor activity levels among hyperactive, hypoactive, or mixed types<sup>(5)</sup>.

Regarding short-term complications related to the disorder, studies have proven the association between delirium and high indices of falls, removal of devices (tubes and catheters), and lesions, such as those caused by patients themselves and pressure ulcers<sup>(6-8)</sup>. Consequently, once an older patient is early diagnosed to be affected by delirium, even closer surveillance must be conducted by the medical team, and actions for reducing the duration of the condition must be implemented.

Nursing teams, in their work process, play an important role in this scenario, as the strategies to keep delirium from happening or to get its episodes shorter<sup>(2,9)</sup> are closely related to the care provided by this professional category, as they provide full-time bedside care to critical patients.

However, despite the scientific community's acknowledgment of delirium as an important cause of short, medium, and long-term complications in critical older patients, and despite the role of nursing in this scenario, there is still a gap between the scientific evidence available and its implementation in the clinical practice.

Thus, given the relevance of this topic, promoting the effective transformation of nursing practices aiming at preventing and monitoring delirium in critical older patients is believed to require more than qualification alone. It is essential to conduct and intervention in which nurses and technicians are stimulated to review their practices by identifying real problems and seeking alternatives to improve the care to older adults under the risk of delirium or affected by it, through linking the current scientific evidence with previous knowledge.

In this sense, Permanent Health Care Education (PHCE) is revealed to be an option, as it is integrated to the everyday

work of organizations, in a way that professionals are seen as leading the desired changes<sup>(10)</sup>. Through the analysis of practices and the search for alternatives for their transformation by the individuals directly implicated, PHCE simultaneously stimulates self-analysis, self-management, and shared decision-making, which allows proposing feasible solutions to change the reality experienced and developing committed, qualified, and critical-reflexive actions<sup>(10-11)</sup>. If there is collective reflection on the practices and significant learning, it is possible to review work processes, to implicate subjects, and to develop the critical consciousness required to reach the transformations<sup>(10-11)</sup> in the care for preventing and monitoring delirium, in a way to ensure better results for older patients.

Facing this context, our aim was to conduct an educational intervention with the nursing team members of an ICU unit, aiming to increase knowledge and to introduce improvements in their practices regarding prevention and monitoring of delirium in older patients.

## METHOD

### Study Type

This is an action research (AR) characterized as a methodological strategy "associated with several ways for collective action aiming to solve problems and achieve transformation objectives"<sup>(12)</sup>. During the situational diagnosis phase<sup>(12)</sup>, we analyzed the reality to be studied by visiting the unit and identifying the main problems brought up by the nursing team. During the action planning phase<sup>(12)</sup>, we defined actions that could contribute to solving/planning solutions for the problems detected, as well as their goals and the professionals that would execute them. The established courses of action should be executed (action execution phase) by the subjects immediately after their indication in these meetings. During the last phase, the results from the actions were verified in the context the research was conducted<sup>(12)</sup>.

The educational intervention proposed consisted of conducting pedagogical workshops in which nursing team members, after being shown updated scientific evidence on the topic and reflecting on their everyday work practices, could identify problems in the way they prevented and monitored delirium, plan actions for solving these problems, and evaluate the results they obtained.

### Study setting

The research was conducted in a general ICU unit in a teaching hospital in Salvador. It was chosen for having a delirium prevalence of 23.8% in surgical patients and one of 43.8% in clinical patients<sup>(13)</sup>. It was also chosen because it

lacked a program for preventing and detecting the condition through validated instruments.

**Data Source**

Eleven nurses and one technician took part in the study. The inclusion criteria include the following: nursing professionals that worked on the ICU unit mentioned and who attended the pedagogical workshops.

**Collection and organization of data**

The data were collected through five workshops; they corresponded to the five AR phases and followed a previously determined script. They were conducted from January to October 2014. There was an audio recording of subjects' contributions that was later transcribed into a Word file.

During the pedagogical workshops, one of the researchers presented scientific evidence on delirium in critical older patients. Before each meeting, the subjects were given articles and chapters of books on the topic, to support the discussions. These actions allowed providing the group with updated theoretical support for the identification of existing problems in the practices and planning respective actions to solve them.

**Analysis of data**

The results regarding the problems mentioned and the actions determined by the group were summarized in sentences/paragraphs and exposed on boards. All the data presented were analyzed based on a theoretical construction regarding delirium in critical older patients and the following premises of PHCE: the critical questioning of practices and significant learning<sup>(10-11)</sup>.

**Ethical Aspects**

The research complied with the recommendations from Resolution no. 466 of Brazil's National Health Council, from December 12, 2012. It was approved by the Edgar Santos

University Hospital's Research Ethics Committee. We chose to identify the sentences through letters N and T, for nurses and technicians, respectively.

**RESULTS**

**Identifying problems and planning actions to solve them/ plan solutions for them**

Ten problems of different natures, which could be solved/minimized by the group, were detected collectively: lack of sensitization by the team regarding care to older patients under risk of delirium or suffering from this condition; insufficient guidance for patients by the professionals; nighttime interruption of patients' sleep; excessive noise in the unit; not using scales for detecting delirium (training/technical nature); some patients' difficulty in visualizing clocks; excessive nighttime lighting (structural nature); improper materials for physical restraint of patients (material nature); absence of routines for allowing the use of hearing aids, glasses, and dentures (management nature).

After the problem identification phase, the planning of actions for solving/minimizing them was started, and that consolidated the acknowledgment that practices could be changed. All actions agreed to were consensually determined and the people responsible for executing them appointed themselves. However, all subjects were instructed to execute at least one of these measures. The actions focusing on solving problems that involved preventing and monitoring delirium in critical older patients in the studied scenario are shown in Box 01.

Considering the complexity of the problems mentioned, there was a need for actions/interventions to be negotiated between the different sectors of the hospital institution (ICU, laundry, sewing, cleaning, purchasing, maintenance, electric engineering, and clinical engineering), and these aimed to eliminate/minimize the causes associated with the problems mentioned.

**Box 1 –** Box of actions agreed to by the research subjects to solve/plan solutions for the problems concerning the practices for preventing and monitoring delirium in older adults in an intensive care unit in Salvador, Bahia, Brazil, 2014

Detected problems	Required actions for solving/planning solutions for them
Lack of team sensitization regarding the care to older adults under the risk of delirium and the ones suffering from it.	To promote a seminar on the topic; to invite a research group member to expose the data collected from delirium patients in the studied ICU; to disseminate the seminar topics to the nursing team: to prepare an information poster and to promote oral information.
Patients' difficulty in visualizing clocks.	To check for the possibility of purchasing another three clocks for the unit; to check with the engineering/maintenance service for the possibility of installing the clocks on the walls.
Insufficient guidance for patients by the professionals.	To inform/sensitize the team about the importance of periodically providing guidance to patients: seminar; to include periodically giving patients instructions/ stimulating the memory of patients in the list of nursing duties.
Insufficient communication between professionals and family members.	To inform/sensitize the nursing team on the importance of providing patient families with information regarding the condition of delirium; to include information on delirium in the "Visitor's Guide" booklet, as follows: what is and how to prevent it; to prepare an informational poster on delirium: what is; what it causes; how to identify it; how to prevent it.

To be continued

Box 1 (concluded)

Detected problems	Required actions for solving/planning solutions for them
Absence of routines for allowing the use of hearing aids, glasses, and dentures.	To inform/sensitize the team on the importance of avoiding sensory deprivation: seminar; to establish flexible routines for patients to use hearing aids, glasses, and dentures, according to their clinical condition; to check for the availability of plastic boxes for storing dentures. As a second alternative, using plastic bags.
Improper material for physical restraint of patients.	To contact the responsible group, to check for the possibility of purchasing enough restraints for the unit; to contact the laundry department to determine the way to control (deliveries and returns) the restraints sent for being washed; to instruct the team regarding the use of control (deliveries and returns) of restraints.
Excessive nighttime lighting.	To check, with the maintenance department, for the possibility of separating the nursing station light switch from the one in the hall, and the feasibility of installing a dimmer in the nursing station; to check with the laundry/sewing department for the possibility of making eye patches.
Nighttime interruption of patients' sleep.	To prepare a poster for informing/sensitizing the team on the importance of refraining from interrupting the patients' sleep during the night; to check for the possibility of purchasing new axillary thermometer cables with the clinical engineering team; to stress the importance of adjusting oral, subcutaneous medications, and eye drops at 12 a.m., 2 a.m., and 4 a.m. to the nursing team, according to the clinical condition of patients.
Excessive noise in the unit.	To prepare and informational poster for informing/sensitizing the team on the importance of reducing noise; to establish a routine of keeping cell phones in vibrate mode during shifts; to check with the purchasing department for the possibility of acquiring earplugs.
Not using scales for detecting delirium.	To establish, as a routine, entering the description of patients' mental health changes in the proper nursing forms; to train nurses on site for applying the CAM-ICU scale; to establish a routine for applying CAM-ICU scale once per day period (morning, afternoon, and NS) and whenever patients have acute mental state changes.

### Evaluating the results of the educational intervention

Among the ten problems detected, only "absence of routines for allowing the use of hearing aids, glasses, and dentures" and "some patients' difficulty in visualizing clocks" were found to be solved. The remaining problems were minimized, as the actions required for solving them are medium/long-term ones, such as the laundry department making new restraints available, the purchasing sector making eye patches and earplugs available, and the clinical engineering department making axillary thermometer cables available. These items require that procurement processes are conducted.

Despite most identified problems not having been solved, the testimonials showed that the educational intervention contributed to changing the initially superficial opinion subjects had about the topic:

*[...] the people here were not very familiar with the delirium topic; what really raised our awareness in the ICU unit was the coordinator's research! But we didn't really know what it was, so we felt like knowing about it, and the workshops could clarify it to us [...] I think our attention to it has improved a lot after the knowledge we gained in those workshops. As nursing professionals are the ones closest to patients, they can notice these alterations immediately! So we become agents in the process, we are the ones who identify the problem and deal with it firsthand, right? [...] we feel somewhat independent about the face we're intervening and preventing it, without the need for doctors all the time! [...]. (N09)*

Other important findings after this educational intervention refer to the group's sensitization regarding the consequences of delirium to older adults and to the highlighting of the hypoactive spectrum, which is more frequent in this population<sup>(1)</sup>, but was previously unknown to all professionals:

*Because of delirium, patients may be hospitalized for longer periods, may have to be intubated, or they may even die. (N03)*

*That patient on bed 5, do you think he has depression or hypoactive delirium? (N01)*

*To me, he has hypoactive delirium. (N06)*

Thus, the educational intervention allowed the updating of knowledge on the topic to be based on the critical questioning of the practices, in the care provided by the group for preventing and monitoring the condition in the ICU unit, through critical reflection on the work. As a result, important changes took place:

*The patient care flow has changed completely. Because, before, when we saw disoriented people, what did we do? We put them on restraint, contacted their doctor, we used to give them Haldol, took all invasive measures first. It's the opposite today; when I see a patient is agitated, I already try to let them know about the time and space, I try to talk to them first, I apply CAM to see if they are having a delirium episode, so then I can try a physical therapy conduct to mobilize the patient. Only then do I pass it on the medical team, only after the interventions I already tried to do. (N06)*



Thus, a significant change is noted in the previous nursing practices, which were based on physical and drug restraint for controlling the condition. The relevant participation from the families in the process of reorienting older patients - who, by the first workshop, were not noticed by the subjects as having improved - began being widely encouraged:

*I also talked to his daughter, I said she had to talk to him, tell him the news, remind him of situations at home, to see if he got better [...]. (N03)*

Critical questioning of nursing practices also allowed reflexively thinking as it stimulated breaking rules adopted by the team insofar as it opened up ways for experimenting new actions, thus enabling the having a different and contextualized look on the care provided to older adults under the risk of delirium or suffering from it:

*There was a patient who, as I got in writing on my clipboard - he was already there for a long time - he said, "I want to do a crossword puzzle". He asked for it himself, he felt the need of doing something, we already made it easier for them not to lose their orientation level. [...] We already become sensitive to these little things that would otherwise go unnoticed. (N09)*

The contribution above expresses sensitization to the importance of implementing the preventive measures, of doing things that were not given much thought before. The same way, the great resistance from the group to allowing that patients use dentures and glasses, for fear of their losing them, was overcome.

The sentences also demonstrated that the significant learning enabled the naïve consciousness to evolve to critical thinking about the executed practice:

*It was really valid to realize that small actions, which sometimes take 5 minutes from the time you invest into orienting patients regarding time and space, already generates such a great improvement! I had never done that thinking about preventing delirium, but today I do it. (N03).*

*We used to do it, but as we said here, we had little knowledge. Now, every time I talk to a patient, I think of delirium, I've already got a better perception of what it is [...]. So I immediately orient patients thinking of the delirium issue. (N09)*

The development of critical consciousness was observed to favor reviewing practices and observing behaviors and actions that contributed to excess noise in the unit:

*I go around turning off TV sets no one is watching. And about the alarms, nobody cares about them. It seems they are used to them, but they bother me a lot [...]. I go around adjusting all of them! (N06)*

Besides the changes that could be perceived in the studied team, after the educational intervention, the group reported also observing some changes in the behaviors of the technicians who had not taken part of the study, in regards to refraining from interrupting patients' sleep and reorienting them:

*When patients do not have high body temperatures and are stable, sleeping, then they do not take their temperature. The girls are very watchful of that, and they are showing that to us. They are also orienting patients in time and space. (N03)*

Regarding monitoring delirium, the subjects already recognize/know the distinct manifestations of this condition and its subtypes:

*T even tells us, "look, he is starting to have a delirium episode!" (N03)*

However, despite considering this disorder serious in critical older patients and being aware of its associated implications, only one out of the eleven nurses who took part in the study incorporated the evaluation based on validated scales in their daily practices:

*Actually, the scale has been rarely applied. We only see N03 applying the scale. Most of the others, even the ones who attended the workshops, still do not apply it. I would call that resistance, but I think it's the dynamics of time. (N05)*

The intervention was also observed to promote the production of knowledge that can be relevant in other contexts, which consequently stimulates advancements in the practice of other services.

*It was really beneficial to me, even in my other job! Because I have a higher number of lucid patients there, I can detect a lot of things. I don't see people there concerned about it, and the nursing team does not even know what it is. I guess they have never even heard of delirium; a lot of people don't know it or haven't read about it, but I try to talk about it and encourage people to learn about it, you know?! (N06)*

## DISCUSSION

Most problems identified by the subjects were found to include risk factors for the development of delirium and to be related to the ICU environment and to the care provided by the multi-professional team, such as sleep and sensory deprivation, excessive noise, and patients lacking orientation by some of the professionals<sup>(14-15)</sup>. The findings emphasize the importance of reflecting on the work, which is supported by the integration among formal (specialized literature) and informal knowledge (reality operators)<sup>(11)</sup>. Such reflection, in turn, provides the articulation between theory and practice, and enables the group to see the problems.

Regarding the monitoring of delirium in the studied scenario, the nursing team, such as other professional categories, did not use scales for detecting the disorder, and this posture opposes to what is recommended by the guidelines for managing pain, agitation, and delirium in adult critical patients<sup>(3)</sup>. However, after the scientific evidence was exposed, the group identified this behavior as one of the existing problems and recognized the importance of early diagnosing the condition, to avoid adverse events and to implement measures for reduce its duration.

In a context where there is lack of or insufficient knowledge about the clinical manifestations of delirium, implications for patients, changeable and unchangeable risk factors, measures to prevent it, and tools for detecting it, nursing may contribute to patients being affected by the condition and to extending its duration. On the other hand, considering the strategies disseminated to prevent this disorder<sup>(9)</sup>, which are directly related to the care provided by these professionals, and due to the fact they continuously supervise older adults from the bedside, these measures are therefore essential for the early identification of acute changes or mental state fluctuations and so is training the team members about it.

In this study, the subjects were found to improve the strategies to be used to prevent the disorder and detect its onset, and started adopting them as they recognized their important role in this context. They were also shown to be aware of their responsibility and autonomy in the execution of the measures recommended by the literature, only contacting the medical team as a measure of last resort. That expresses how seriously they take the care they provide to patients.

Regarding the advancements achieved by the group in delirium monitoring practices, the results showed that the subjects already recognize its hypoactive spectrum, which they previously had no knowledge of. Nonetheless, almost all nurses still detect the condition only based on the usual clinical evaluation, even though they are aware of how important it is to use the validated scales for that purpose. This information corroborates the findings of international studies whose results have shown that nursing professionals do not make use of appropriate scales to detect the condition<sup>(14)</sup>. The disorder is also believed to be underdiagnosed due to the lack of protocols for its identification in critical environments<sup>(14)</sup>.

Considering what was exposed, once clinical evaluations are not reliable for diagnosing delirium, the use of these scales is recommended, as their implementation has already been proven to be possible in ICU units<sup>(3)</sup>, requiring from three to five minutes in average to be conducted. Thus, once each ICU nurse is responsible for four patients at most, the time factor would not justify such resistance from the professionals. Therefore, the need for continuity in the promotion of educational measures is emphasized to sensitize professionals regarding the importance of applying the scale and determining it as a routine.

The access to new knowledge and competencies is known to involve changes in the actions from the individuals who are capable of associating knowledge and action, theory and practice<sup>(11)</sup>. Nevertheless, due to the fact that subjects learn when they reflect on their actions and on their experiences, for these procedures to be effective in practices, there must be a critical reflection on such changes, taking into account updated theoretical support and previous experiences/knowledge from subjects, in a way to comprehend the dynamic movement between doing things and reflecting on them<sup>(16)</sup>.

Hence, the changes achieved were found to result from the development of significant learning by the group, which was enabled through critical questioning of practices, as it made sense to the subjects and they understood them, as opposed to simply doing things without understanding why, based on memorization

alone<sup>(17)</sup>. In this sense, for significant learning to take place, it is essential that it originates in the needs of involve professionals, and that the everyday procedures are adopted as a source of knowledge<sup>(11)</sup>, which are elements that were considered and valued during the conduction of this educational intervention.

While the practices were being critically questioned, the subjects themselves also analyzed the care they provided, and that is considered to be self-questioning of individual and collective care measures<sup>(18)</sup>. This activity helped subjects have a new look at their everyday work and at specific situations, which provided them with a new way for noticing their reality and the care they provide in the prevention and monitoring of delirium.

The sentences also revealed the progression of the naïve consciousness, which is present in the spontaneous approximation of reality, even though it was not critically analyzed to accomplish critical consciousness, in which there is a correlation between causal and circumstantial factors that affect the experienced reality<sup>(16)</sup>. Such progression was expressed through the awakening of the valuation of risk factors that are related to the environment and to the care provided, as well of the importance of preventing, managing, and monitoring delirium by the group. In this case, acknowledging the need for taking a new professional posture was revealed to be a fundamental element in the permanent work process review, and it enabled subjects to turn what by then was a static, eminently technician practice into a reflexive one that is permeated by the constant dialog with the experienced reality.

Furthermore, critically questioning the reality contributed to creating new ways to manage the work process to rearrange care practices, according to collectively built agreements. In this sense, co-management or participatory management, which is one of the premises of PHCE, was also stimulated throughout this process, in a way to promote the decentralization of decisions and the coming together of all team members<sup>(11,19)</sup>. In the related study, the co-management and the self-management of activities by the nursing team members enabled taking participatory decisions and sharing power and responsibilities in an egalitarian way among the different members of the nursing category in the unit.

### Study limitations

As limitations of this research, the following can be mentioned: non performance of some of the actions agreed to by the subjects, whereas others were implemented. However, these have not resulted in the solving or planning solutions of problems, as these, to be executed, depended on procurement process and changes in the physical structure of the unit. From this perspective, an action research does not belong to a researcher, and this person's wish is not therefore enough for the immediate achievement of their goals. Besides that, the gains obtained with the conduction of the study focus on the investigated scenario, and its subjects need to be committed to executing the programmed measures to deal with the situation. Thus, the actions that were not executed could otherwise generate more successful changes in this ICU unit's practices through the sensitization of the whole nursing team, and even other professional categories, regarding the problems mentioned.

### Contributions to the study

The research caused the complexity of the identified problems and the existence of alternatives visible to the subjects, as well as the difficulties that are faced to solve these problems and reach the desired situation. It will also allow using the knowledge that was produced by the subjects themselves in other services.

In a complementary way, the older patients, the nursing team, and the investigated scenario/service received important contributions with the conduction of this study. The service, through the strengthening of the group, the development of new abilities by the subjects, and the perception they apprehended from their professional daily lives as a space for learning. The professionals, in turn, were benefited from the recognition of their individual/collective ability to propose and achieve changes in their practices, seeing themselves as agents of desired transformations and stressing the importance of critically reflecting on the work they do. Finally, the benefits to the older adults, as well as to the other patients under the risk of delirium or the ones affected by it, are highlighted, considering the safe, effective, and quality care they will be submitted to, in a way to reduce the negative clinical results associated with the condition. These gains will certainly transcend the conclusion of this research.

### FINAL CONSIDERATIONS

The educational intervention conducted contributed to increasing the knowledge and improvements regarding new

practices for prevention and monitoring of delirium in older patients committed to the ICU unit studied. The scientific evidence that was exposed during the educational intervention was found to help the subjects be more knowledgeable, updated, and sensitized about delirium as a serious problem for older adults. This result could be confirmed through the recognition they showed of the existence of important risk factors for the disorder in the unit, as well as through the use of scales for diagnosing it, as these were not adopted to that end before. Highlighting the group's previous opinions and their theoretical and practical knowledge was essential for determining feasible and proper solutions to minimize the problems detected.

Non-drug measures for preventing and managing the disorder have also been noticed to be adopted by the group, which already recognizes the different delirium subtypes. Moreover, changes in the practices of professionals who have not taken part of the research are observed in the unit. However, a need is highlighted for systematically applying validated scales to detect the condition by the group.

Besides the changes achieved in general nursing practices, the educational intervention favored the development of the subjects' critical consciousness regarding the research topic and the importance of the care they provide. In this perspective, we suggest that programs dealing with other topics regarding this sector are continuously offered, which use PHCE principles and take into account what people know and where they are, through the critical questioning of their actions and the continuous evaluation of their work processes.

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