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ORIGINAL ARTICLE / ARAŞTIRMA YAZISI

Nursing / Hemşirelik

Experiences of Surgical Intensive Care Nurses on Delirium: A Phenomenological Study

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ABSTRACT

Purpose: The study aims to reveal the perceptions and care practices of nurses working in surgical intensive care units towards delirium in more depth.

Methods: The study is qualitative research with a phenomenological design. Twenty nurses working in the surgical intensive care units of a university hospital and giving care to patients diagnosed with delirium before were included in the study. The data of the research were obtained by interview method, one of the qualitative data collection methods. The obtained qualitative data were analyzed by content analysis method.

Results: The methods used by nurses in the diagnosis of delirium were divided into two main themes subjective and objective. Nurses' care interventions were divided into six themes: providing and maintaining a safe environment, communication, eating and drinking, mobilization, sleeping, and dependent interventions/others. In addition, the difficulties experienced by nurses are divided into three themes: patient-related difficulties, systemic difficulties, and individual difficulties.

Conclusion: It is noteworthy that in this study, nurses did not specify some evidence-based interventions related to delirium care. In addition, it was determined in the study that nurses had some difficulties while giving care.

Keywords: Delirium, Nursing, Patients, Care Management, Critical Care

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Cerrahi Yoğun Bakım Hemşirelerinin Deliryuma İlişkin Deneyimleri: Fenomenolojik Bir Çalışma

ÖZET

Amaç: Bu çalışma, cerrahi yoğun bakım ünitelerinde çalışan hemşirelerin deliryuma yönelik algılarını ve bakım uygulamalarını daha derinlemesine ortaya çıkarmayı amaçlamaktadır.

Yöntem: Araştırma fenomenolojik desende nitel bir araştırmadır. Çalışmaya bir üniversite hastanesinin cerrahi yoğun bakım ünitelerinde çalışan ve daha önce deliryum tanısı almış hastalara bakım veren 20 hemşire dahil edildi. Araştırmanın verileri, nitel veri toplama yöntemlerinden biri olan görüşme yöntemi ile elde edilmiştir. Elde edilen nitel veriler içerik analizi yöntemiyle analiz edilmiştir.

Bulgular: Çalışmada hemşirelerin deliryumun tanılamada kullandığı yöntemler subjektif ve objektif olmak üzere iki ana temaya ayrılmıştır. Hemşirelerin deliryumu olan hastaya bakım verirken uyguladığı girişimler ise güvenli çevrenin sağlanması ve sürdürülmesi, iletişim, beslenme, hareket, uyku ve bağımlı girişimler/diğer olmak üzere altı temaya ayrılmıştır. Ayrıca hemşirelerin deliryumu olan hastaya bakım verirken yaşadıkları güçlükler hastaya bağlı, sistemsel ve bireysel güçlükler olmak üzere üç temaya ayrılmıştır.

Sonuç: Bu çalışmada hemşirelerin deliryum bakımı ile ilgili bazı kanıta dayalı girişimleri belirtmemesi dikkat çekicidir. Ayrıca çalışmada hemşirelerin bakım verirken bazı zorluklar yaşadıkları belirlenmiştir.

Anahtar Kelimeler: Deliryum, Hemşirelik, Hastalar, Bakım Yönetimi, Yoğun Bakım

Delirium, a syndrome characterized by acute changes in attention, awareness, and cognition, is a very common condition in intensive care units (ICUs). Delirium affects up to 80% of critically ill patients and negatively influences patient outcomes (1). There are a wide variety of risk factors for delirium that cause the clinical picture of patients to change significantly. Being critically ill patients and undergoing surgery are among the most important risk factors (2). In the literature, it has been reported that the incidence of delirium after surgery varies between 5-52% depending on the surgical procedures (3, 4).

Many studies show that post-operative delirium increases the length of hospital stay, care costs, long-term cognitive impairment, dementia, and mortality risk (2, 5–7). For these reasons, it is very important to diagnose delirium in the early period and plan effective treatment and care by taking precautions against the factors causing delirium without delay (8, 9).

As delirium has significant negative sequelae, the ICU teams should have a strong and consistent focus on its prevention, early recognition, and management (10). For effective delirium management, the intensive care team must have a common understanding and be in constant communication (11). Nurses who are primarily responsible for patient care in the intensive care team have great responsibilities. Nursing care is crucial in the prevention and treatment of delirium. The nurses' approach to the patient with delirium is essential for the quality of care provided to the patient (12,13,14). With the delirium prevention campaign, hospital mortality can be reduced (13). Ogawa and colleagues (2019) evaluated the quality of care before and after implementing a systematic delirium prevention program in hospitalized cancer patients. In this study, a decrease in the frequency of adverse events such as falls, a reduction in benzodiazepine prescriptions, and a shorter length of hospital stay were observed in patients. Additionally, an increase in the level of independence in performing daily life activities was reported when patients were discharged (14). Based on these findings in the literature, it can be said that enhancing nurses' knowledge and skills in delirium management is highly valuable in improving the quality of care and patient outcomes. While there are quantitative studies in the literature assessing nurses' knowledge levels, awareness, and practices related to delirium, qualitative studies on this topic are quite limited (15). Ths study aimed to reveal more deeply how nurses working in surgical ICU define delirium, their care practices for delirium, and the difficulties they experience in these practices.

Methods

Design of the study

The research was conducted as a phenomenological approach, one of the qualitative research methods to reveal the views of surgical intensive care nurses about delirium, their care practices, and the difficulties they experienced in more depth. The study complies with the guidelines of the Standards for Reporting Qualitative Research (SRQR).

Recruitment and sampling

A total of 57 nurses were working in the neurosurgery, cardiovascular surgery, and general surgery ICU of the university hospital where the research was conducted. The criterion sampling method, one of the purposeful sampling techniques, was used in the research. Nurses who work in the surgical ICUs of a university hospital, care for patients with delirium, and have at least five years of experience were included in the study. 36 nurses met the research criteria. The participants of the study were selected among the nurses who accepted the interview and were willing to participate. In the study, interviews were conducted with 20 nurses aged between 27-55 working in neurosurgery, cardiovascular surgery, and general surgery ICU.

Data collection

A semi-structured interview protocol based on open-ended questions was used (see File S1). During the interview, the views of the nurses who care for the patient with delirium in the surgical ICUs, the evaluation of delirium, nursing interventions for delirium, and the difficulties experienced were discussed (9). Interviews lasted for 16-37 min. Interviews were sound recorded, de-identified, and transcribed verbatim. The sample size was determined according to the theoretical saturation point, which meant we stopped recruiting participants after 20 interviews when it became clear that interviewees' responses become redundant and no unique information was achieved (16, 17). Data collection and interviews were conducted in the period from 1-5 October 2022.

Procedure

Nurses who met the research criteria were contacted and detailed information was given about the research. Verbal consent was obtained from the nurses who agreed to participate in the study. Appointments were made from nurses for interviews. The interviews were conducted by

a trained researcher in the nurse rooms of the ICU where the participants worked. Audio recordings of the interviews were taken with the permission of all participants. At the end of the interview, the nurses who participated in the study were thanked.

Data analysis

The data obtained after the interview was transferred to a Microsoft Word document. The content analysis method was used in the analysis of the data obtained from the interviews. Data were coded independently by all researchers. By determining the same and different codes by the researchers, the data were compared and common codes were determined. By providing consensus, codes that can be derived from each sentence and sentence were created. Researchers came together and created a common code list. After the codes were determined, sub-themes and themes were created. Then, the interview data were interpreted and turned into a report. The findings were mapped with the MAXQDA 2022 program. Direct quotations were included in the presentation of the findings to reflect the views of the participants. When quoting the participants, it was stated as "Nurse" and the numbers given to the participants (for example, N1) were added to the end of the quotations.

Quality and rigour criteria

Conducting the interviews and analyzing the data by one person might affect the result of the study. Therefore, all researchers discussed and interpreted the results and data. The findings were corroborated by excerpts from the original interview. This step showed how well the findings of the study matched the data collected and were not affected by the researcher's point of view. Determining the sample size based on a "saturation point" ensured that new ideas or themes were not overlooked. Finally, saving all documents is an additional step that serves to quality control the work.

Ethical Considerations

To carry out the study; approval was obtained from the Ethics Committee of Isparta University of Applied Sciences University (Decision no: 119/02 Date: 30/09/2022). After explaining the study, verbal consent was obtained from the participants and they were informed that they could withdraw from participation at any time.

Results

Table 1. Individual characteristics of nurses

	n	%
Gender		
Female	15	75
Male	5	25
Educational status		
High school degree	3	15
Undergraduate degree	17	85
ICU		
General surgery	8	40
Cardiovascular surgery	7	35
Neurosurgery	5	25
Working experience		
5-10 years	7	35
10-20 years	8	40
More than 20 years	5	25

The ages of the nurses participating in the study were between 27-55, 15 of them were female, 17 of them were undergraduates and 3 of them were high school graduates. Eight of the nurses were working in general surgery, 7 in cardiovascular surgery, and 5 in neurosurgery intensive care. Their working experience ranged from 5 to 37 years.

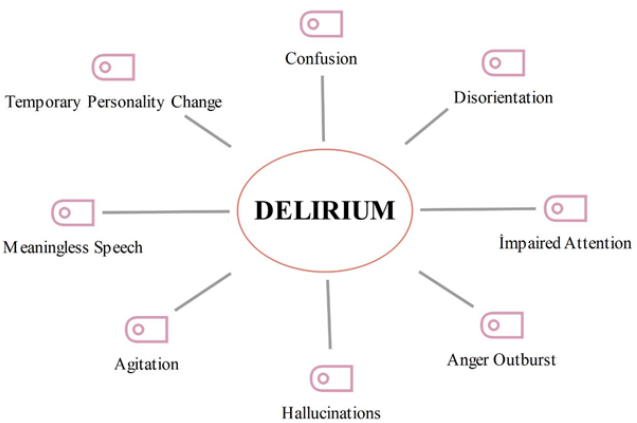

Figure 1. *Views of Nurses on Delirium*

Themes related to the views of nurses about delirium are given in Figure 1. In the study, it was determined that the nurses defined delirium as confusion, disorientation, anger outburst, impaired attention, hallucinations, agitation, meaningless speech, and temporary personality change. The views of nurses about delirium are seen in the quotations below.

-I can describe it as a cloud of consciousness. The patient has no concept of place, time, and space. There are often meaningless, unrelated patient conversations. He can say that objects have moved. Patients do not know exactly where they are. (N_2).

- Delirium is very complex in my opinion. Maybe I can say it is a condition characterized by blurring of consciousness, having trouble focusing, hallucinations, and getting angry. (N_{12}).

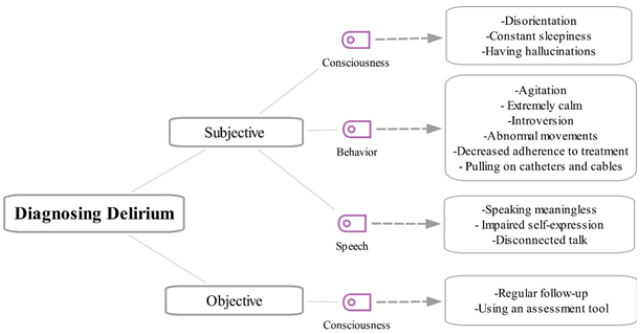

Figure 2. *Methods Used by Nurses to Diagnose Delirium*

Themes related to the methods used by nurses in the diagnosis of delirium are given in Figure 2. The methods used by nurses in the diagnosis of delirium were divided into two main themes subjective and objective. It was determined that the nurses subjectively recognized delirium from their level of consciousness, behavior, and speech. Objectively, it was determined that they knew from their level of consciousness. The views of nurses on diagnosing delirium can be seen in the excerpts below.

-These patients have meaningless speech. They cannot express themselves. Abnormally they are trying to go one day, stay one day or jump out the window. Meaningless movements like these can be agitation. Or it can be in a very quiet sleepy state. In such cases, I think the patient has delirium. (N_3).

- There is usually restlessness, daydreaming, blank staring, etc. I notice it when patients start to remove the catheters, cables, etc. in their bodies or when they cannot keep them in bed. (N_{13}).

Interventions applied by nurses while giving care to patients with delirium are divided into themes according to Roper, Logan, and Tierney's Model activities of daily living and are given in Figure 3. Nurses' care interventions were divided into six themes: providing and maintaining a safe environment, communication, eating and drinking, mobilization, sleeping, and dependent interventions/others. The views of the nurses about the interventions they take while giving care to patients with delirium can be seen in the excerpts below.

- It is important to ensure the safety of the patient. Penetrating cutting tools such as glass and knives are removed. If the patient has a relative, being with them can help calm the patient. Stimuli that may increase agitation such as sound and light should be removed from the environment. According to the doctor's request, if necessary, a patient determination can be made within the order. (N_{19}).

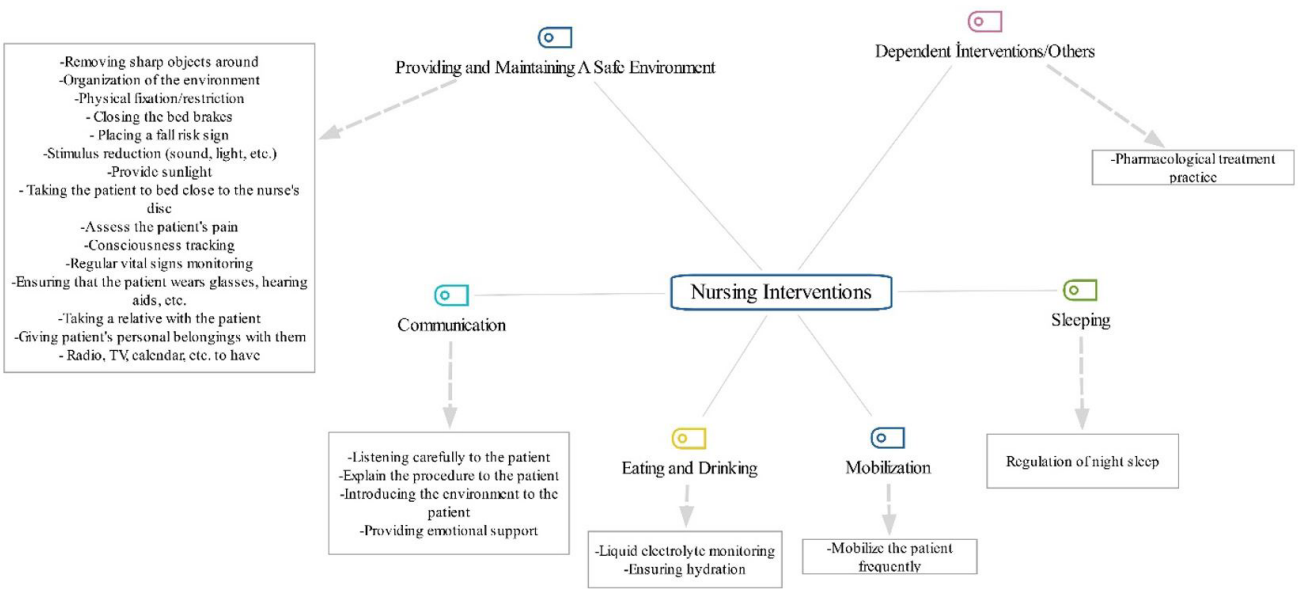

Figure 3. *Nursing interventions*

- ….of course, first of all, we should make the patient feel mentally comfortable. For this reason, if the patient has special things such as favorite items, rosaries, and watches, leaving them with him makes the patient very comfortable. In addition, I can take the patient's relative with him according to the intensive care conditions. We should not forget the pharmacological treatment according to the doctor's order. (H_{20}).

Themes related to the difficulties experienced by nurses while giving care to patients with delirium are given in Figure 4. The difficulties experienced by nurses are divided into three themes: patient-related difficulties, systemic difficulties, and individual difficulties. The views of the nurses regarding the difficulties they experienced can be seen in the excerpts below.

- The fact that the whole team doesn't see delirium as a problem is a problem in itself. We're just trying to look for a pharmacological solution and we don't even know about other methods. The fact that the situation is treated as normal in the ICU leads to the absence of any standard practice to understand and prevent delirium, and this forces us to do so. (N_{15}).

-Patients can use violence. He can harm himself. Most of the time, I can't predict what patients will do. A patient who prayed to us constantly before the operation developed delirium after the operation. He had become a different person. He was constantly cursing, pulling his peripheral catheters, and not wanting to take oxygen. He once threw the patient's diaper, which he had made into a ball, on the window of the intensive care room. This patient had undergone a successful surgical intervention. However, since the delirium could not be brought under control, this care could not be applied and the patient died. This tells us the importance of care. (N_{18}).

Discussion

Delirium is a frequently encountered clinical condition in patients hospitalized in surgical ICU. Therefore, the competence of nurses working in surgical ICUs in preventing delirium, recognizing the patient with delirium, and providing optimal care is very important (13). This study was conducted to determine how surgical intensive care nurses define delirium, their care practices for delirium, and the difficulties they experience in these practices.

In this study, nurses described delirium as "confusion", "disorientation", "anger burst/seizure", "distracted attention", "hallucination", "agitation", "meaningless movements", "meaningless speech" and "temporary personality change". It can be said that nurses define delirium with "delirium signs and symptoms" and in this respect, there are aspects that nurses lack in the definition of delirium. Although nurses' definitions of delirium are consistent with the signs and symptoms stated in the literature are important and desirable for the clinical diagnosis of delirium, the fact that nurses do not know the exact definition of delirium is also an obstacle to prevent delirium. Similar to our study finding, in a study conducted with cardiovascular surgery nurses, it was determined that nurses had insufficient knowledge about the definition of delirium (14). In another study conducted with intensive care nurses, it was reported that the level of knowledge of nurses about delirium was low and that the nurses who stated that they knew about delirium could not fully define delirium (15). This study and similar studies reveal that the level of knowledge of nurses about what delirium is should be increased.

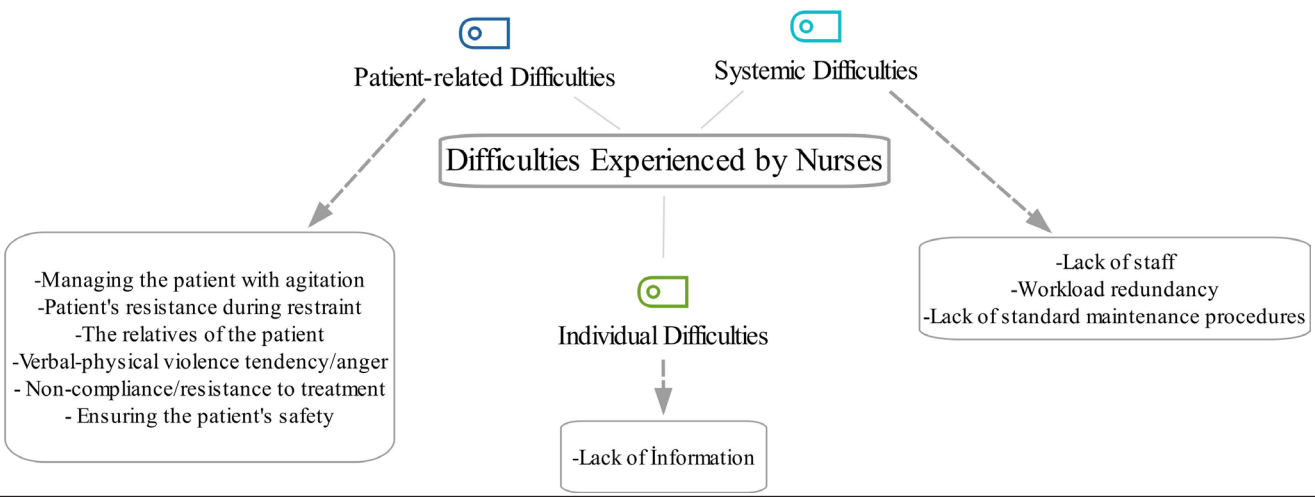

Figure 4. *Difficulties Experienced by Nurses*

Based on the level of psychomotor activity, delirium can be described as hyperactive, hypoactive, or mixed (10). Detection of all subtypes is critical for an effective diagnosis of delirium (16). In this study, it is a remarkable finding that nurses mostly defined delirium with hyperactive delirium signs and symptoms and stated less about hypoactive delirium features. However, in a cohort study conducted with 614 critically ill patients, it was determined that mixed type was most common, followed by hypoactive delirium and purely hyperactive delirium (17). Similarly, it has been reported in the literature that hypoactive delirium is often overlooked because it is underdiagnosed and confused with depression (16, 18). Because delirium is a life-threatening condition, nurses who do not know hypoactive delirium should not be ignored. This study revealed the importance and necessity of informing nurses about hypoactive delirium.

Delirium is a common problem in the ICU that is often undiagnosed if not screened for with a validated tool (19, 20). In this study, it was determined that nurses mostly diagnosed delirium with subjective data, and they also determined it objectively, although less frequently, with diagnostic tools. In a study, it was determined that 56.3% of intensive care nurses used delirium diagnostic tools (13). In a study conducted with surgical intensive care nurses, it was determined that 50.8% of the nurses did not use any form in diagnosing delirium, and 28.6% of them determined delirium with a general clinical assessment (21). In a study conducted with surgical intensive care nurses, it was determined that %24.5 of nurses had screened the delirium routinely and half of the nurses who screen for delirium routinely had done so with a general clinic examination (22). In a study of 1,384 healthcare professionals, 59% of them reported screen for delirium, with 33% of those using a specific screening tool (23). Our study finding is compatible with the literature. Nurses' use of valid and reliable tools in the diagnosis of delirium will play a key role in delirium care management.

In this study, it was determined that nurses mostly efforted to maintain a safe environment for the patient with delirium according to the Life Model of Roper, Logan and Tierney. In addition, it was determined that they also made nursing interventions for communication, sleeping, mobilizing, breathing, and eating and drinking activities. It was also determined that nurses applied pharmacological treatment methods and needed physician support as well as independent nursing interventions. The nursing interventions that surgical intensive care nurses "always" do to prevent and reduce delirium included preventing the self-harm of the patient, complying with infection control measures, and pain management (21). Studies have shown that nurses want to receive physician support in delirium management and apply the pharmacological method (16, 24). On the other hand, our study revealed that involving patients in their own care was not mentioned and that nurses needed awareness to include the patients in their own care. Participating nurses also reported that they applied physical restraint while caring for patient with delirium. Physical restraint can be needed to secure the patients' safety, and as the last intervention and as short as possible. As physical restraint can further increase the patient's current state of delirium and agitation, physical restraining measures need to be professional (25, 26).

It was determined that nurses experienced patient-related, systemic, and individual difficulties while caring for patients with delirium. It was determined that nurses had difficulties related to patients during care due to agitation, violence, and non-compliance with treatment. In addition, although the nurses stated that the participation of the family in the care of the patient with delirium was a part of the care, they also reported that they had difficulties with the relatives of the patients. In a qualitative study, nurses reported that they had difficulties in communicating with patients with delirium (12). In our study, nurses reported that they experienced systemic difficulties in delirium management, such as a lack of personnel, excessive workload, and lack of standard care procedures. This finding is consistent with the literature. In a study, nurses reported excessive workload, complex tasks, and fast pace environment in ICUs as barriers to effective management of delirium (12). It was determined that nurses had difficulties during care due to inadequate knowledge. Similarly, in a study, 15% of nurses stated that they needed training on delirium (24). Similarly, it has been reported that lack of education and knowledge, and inexperience are barriers to the diagnosis of delirium (12, 20). Solberg et al. (2021) reported that interprofessional education about delirium with a standardized screening tool, documentation, and non-pharmacologic interventions improved knowledge of delirium (27). Determining the difficulties experienced by nurses during the care of patients with delirium will contribute to taking the necessary precautions for the obstacles that prevent effective management of delirium. Similarly, studies also show that nurses mostly experience problems and difficulties in delirium management (24, 25, 28).

Limitations

This study has some limitations. First, the main limitation of this study is the relatively small sample size of ICU nurses. Second, the three included wards were specialized surgical wards in one hospital and only in a country. This limits the transferability of the study results. Third, the interviewer fulfilled the dual role of researcher and health professional. Despite these limitations, our research adds to a still growing literature in this area.

Conclusion

In the study, it was determined that the methods and nursing interventions used by nurses to identify patients with delirium generally overlap with evidence-based practices. However, it is noteworthy that the nurses did not specify some evidence-based interventions. In addition, it was determined in the study that nurses had some difficulties while caring. It is recommended that nurses, who have an important place in the intensive care team, should be given in-service training prepared in the presence of current guides by considering the difficulties they experience while giving care to patients with delirium.It is important to define the knowledge and skill levels of nurses about delirium to increase the quality of care given to patients with delirium. For this reason, it is recommended to conduct qualitative and quantitative studies on this subject in larger samples.

Declarations

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Conflict of Interest

The authors have no conflicts of interest to disclose.

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