

Pediatric Delirium Knowledge and Attitudes of Nurses in the Intensive Care Unit

Abstract

Background: Pediatric delirium, seen in critically ill children in intensive care units (ICUs), increases the risk of morbidity and mortality. Although delirium is common in critically ill children, only 2% of ICUs screen for delirium.

Aim: The purpose of this study was to determine the ICU nurses' knowledge and attitudes toward delirium.

Methods: This descriptive study was carried out with 80 nurses working in 6 tertiary ICUs in Türkiye between November 2019 and February 2020. Data were collected using face-to-face interviews method by the Sociodemographic Data Form and Pediatric Delirium Knowledge and Attitudes Questionnaire. Data were analyzed with Mann-Whitney U test, Kruskal-Wallis test, and Spearman correlation analysis.

Results: The majority of the nurses have moderate knowledge about pediatric delirium and are not aware of the screening procedure and instruments for delirium. The majority of the nurses routinely did not screen their patients with delirium and did not know the screening instruments (97.6%) available for delirium. The knowledge mean score and positive attitude of nurses were significantly correlated with nurses' departments and their education level of nursing ($P < 0.05$).

Conclusion: This study showed that nurses working in ICU had moderate knowledge of pediatric delirium, especially its definition, causes, and management. In order to detect pediatric delirium in the early period and manage it properly, it is recommended that training programs be arranged for intensive care nurses. Furthermore, pediatric delirium assessment form with proven validity and reliability in ICUs should be used and evidence-based care guidelines should be created.

Keywords: Attitudes, critical care nursing, delirium, knowledge, pediatric

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Introduction

Delirium is an acute brain dysfunction and characterized by disturbances of attention, consciousness, other cognitive functions, and sleep-wake cycle.¹⁻⁴ Delirium is usually seen in elderly population with cognitive impairment in the intensive care units (ICUs). However, current data show that delirium is also seen frequently in especially critically ill children. The prevalence rate of delirium in pediatric patients upon admission ranges from 10% to 60% depending on the age of children. Especially it reportedly occurs in up to 80% of pediatric patients receiving mechanical ventilation and post-operative.⁵⁻¹² Common risk factors for pediatric delirium are ICU environment with too much light and noise, disturbance of sleep-wake cycle, repetitive interventions by health-care professionals, severity of illness, use of sedatives, and multiple drugs. In addition, age, emotional characteristics, sepsis, hypoxia, and mental retardation also contribute to delirium in critically ill children.^{6-8,13-16}

Delirium places critically ill children at risk for adverse outcomes including morbidity and mortality. Adverse outcomes include cognitive impairment, prolonged hospital stay, self-extubation, self-removal of catheters, and increased cost of treatment and caring.^{7,12,13,16-19} In order to reduce adverse outcomes, it is important to detect early, treat, and manage it. The Society of Critical Care Medicine guidelines recommend that critically ill children are routinely screened for delirium using a validated screening tool. Nurses are in better position to screen pediatric delirium early, and manage it, because of the amount of time they spent beside critical children.^{1,2,6,13,20-25} However, if nurses

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do not have the necessary knowledge and skills to evaluate children carefully, they cannot intervene early enough to prevent the development of delirium. Early recognition of pediatric delirium in ICU allows nurses to prevent or manage it properly with pharmacological and non-pharmacological strategies.^{1,2,6,13}

The current data show that pediatric delirium is often missed due to differences in developmental levels of children, and inadequate knowledge and awareness for screening.^{1,12,17-22} Only one-third of children with a significant symptom are diagnosed and treated, because of inadequate screening in pediatric ICUs. It is recommended that the ICU nurses must increase their knowledge and skills to evaluate child towards delirium and decrease negative effects of it. However, researches show that ICU nurses have inadequate knowledge about pediatric delirium and are not comfortable screening the pediatric patients with delirium and giving care for them. Therefore, they often miss the sign and symptoms of delirium.^{1,2,6,13,20,25,24}

Studies show that education about pediatric delirium increases nurses' self-confidence and improves attitude toward delirium. However, first of all, there is a need to determine the areas where critical care nurses are inadequate regarding delirium. Identifying the lack of knowledge and deficits in attitudes of critical care nurses will also help develop educational programs for timely diagnosis and management of delirium.^{1,2,6,13,12,20-25} Therefore, this study aimed to determine the ICU nurses' knowledge and attitudes toward pediatric delirium.

Research Questions

1. What is the pediatric delirium knowledge level of nurses?
2. What are the attitudes and practices of nurses for pediatric delirium?
3. What are the levels of pediatric delirium attitudes and practices of nurses?
4. Is there a relationship between sociodemographic characteristics of nurses and their knowledge and attitudes?

Methods

Type of Research

The research is descriptive type.

Population and Sample

This study was conducted between November 2019 and February 2020 at six tertiary care ICUs in a private hospital in Istanbul, Türkiye. All ICUs were selected as general ICU, pediatric ICU, pediatric coronary ICU, and cardiovascular surgery ICU. The population of the research consisted of 92 nurses. The sample size of the study was calculated via the G*Power 3.1 program using Sari's (2015) study findings.²⁶ According to the result of the sample calculation, it was determined that it was necessary to reach at least 78 nurses with preliminary acceptances at confidence interval of 95%, power of 90%, and type I error of 0.05. Considering that the data would be lost in data collection period, the research was carried out with 80 nursing staff working in ICUs and caring for pediatric patients. Those who provided informed consent and agreed to participate were included in the study. The exclusion criteria of the study included nurses who did not give care to a child patient last month and did not want to participate in the study were not included in the study.

Data Collection Tools

The data were obtained using the Sociodemographic Data Form and Pediatric Delirium Knowledge and Attitudes Questionnaire developed specifically for the study.

Sociodemographic Data Form

Sociodemographic data form collected data on the nurses' sociodemographic characteristics as age, gender, the highest nursing education degree, years of nursing experience, years of ICU experience, and previous training program on delirium.

Pediatric Delirium Knowledge and Attitudes Questionnaire

The nurses' pediatric delirium knowledge and attitudes were determined using the Pediatric Delirium Knowledge and Attitudes Questionnaire. The questionnaire was prepared by the researchers based on related researches.^{1,2,4,6,13,14,20,26,27} In addition, the form was also tested for content validity by six experts in pediatric intensive care medicine and nursing who reviewed the tool for clarity, relevance, understanding, and applicability.

The questionnaire comprised 13 items and 2 sections. The initial six questions (first section) evaluated the basic demographic information, place of work, designation, and duration of the participants. Thus, these six questions did not score. The last seven multiple-choice and true-false questions (second section) assessed the knowledge and attitude toward various aspects of delirium. The second section was designed based on the review of literature in terms of knowledge of nurses about delirium, symptoms of delirium, management of delirium, and the outcome of delirium. Response to each of the subitems was given a score of "0" or "1" to indicate correct knowledge, practice, or attitude (item 8=10p, item 9=2p, item 10=18p, item 11=9p, item 12=4p, and item 13=14p). Correct responses were given a score of "1", and incorrect answers were scored as "0." Since the definition of delirium (item 7) refers to basic knowledge, it is rated as three points. The total score between 0 and 60 is obtained from the scale. Based on this, the score a participant could score ranged from 0 to 60.

The level of knowledge and attitude was categorized as follows:

- Good knowledge and attitude (46–60 grades)
- Fair knowledge and attitude (30–45 grades)
- Poor knowledge and attitude (<30 grades)

Data Collection

The Pediatric Delirium Knowledge and Attitudes Questionnaire was pilot-tested for face validity and clarity by a random sample of 10 pediatric intensive care nurses who met the inclusion criteria before the data collection. Minor modification was done and the pilot sample was excluded from the study.

One of the researchers personally contacted the participants and gave information about the aim and objectives of the study. Nurses who agreed to participate in the study and provided written informed consent were interviewed individually by the researcher to fill the tool. On average, the questionnaire took about 20–25 min for each participant to complete.

Ethical Considerations

Before the study was conducted, Acibadem University Ethics Committee approval was obtained from the Non-Interventional

Clinical Researches Ethics Committee (Approval Number: 2019/16-5, Date: 17.10.2019) and written permission was obtained from the institutions where the study would be conducted. This study was conducted in accordance with Helsinki Declaration.

Evaluation of Data

In the data analysis, the Statistical Package for the Social Sciences 17.0 (SPSS) (SPSS Inc., Chicago, IL, USA) software package was used. First, the compatibility of all data to normal distribution was examined. The demographic characteristics of the nurses were analyzed based on means and percentages. The levels of nurses' knowledge and attitudes on pediatric delirium were assessed based on mean and standard deviation. Mann-Whitney U test and Kruskal-Wallis tests were used to evaluate the differences in the nurses' knowledge and attitude scores according to their sociodemographic characteristics. The source of the difference was investigated with Mann-Whitney U test. Pearson correlation analysis was performed to analyze the relationships between nurses' education level, working year, and department because the data were not suitable for normal distribution. In statistical decisions, the level of $P \leq 0.05$ was accepted to be an indicator of significant difference.

Results

Characteristics of Nurses

The study included 80 nurses working in various ICUs of the tertiary care hospital. The majority of the participants were females (78.7%) and aged 24–29 years. Of the nurses, 56.2% had at least a bachelor's degree. The majority of the nurses were on the job for 1–5 years of experience working in intensive care (55%), and were working in pediatric ICU (38.7%), and general ICU (30%). Of the total, only 21.3% had received delirium training in nursing education and 26.3% in in-service training. The majority of the nurses obtained pediatric delirium information via the Internet (61.3%) and occupational books (33.8%) (Table 1).

Nurses' Knowledge and Attitudes on Pediatric Delirium

Table 2 shows the data on the nurses' knowledge levels about pediatric delirium. Of the nurses, 59.2% were able to define delirium correctly. Nurses reported that delirium often develops due to the use of sedating drugs (80%) and polypharmacy (68.8%). The nurses stated that the most common symptoms of pediatric delirium are agitation (81.3%) and disorientation (77.5%).

Nearly all of the nurses reported that they assessed the time, place, and person orientation (95%) and consciousness, cognitive functions, and attention (97.5%) in their pediatric patients. Furthermore, 52.5% of the nurses reported that they used a standard assessment form for pediatric delirium assessment. The most frequently used form was the Glasgow Coma Scale (97.6%). The nurses found the use of a standard form in delirium assessment necessary due to reasons such as (a) procurement of patient safety (65%), (b) facilitation of diagnosis in risky patients who have sudden changes in their condition (62.5%), and (c) realization of acute changes in patients (61.3%) (Table 3).

The mean knowledge and attitude score of the nurses concerning pediatric delirium was 36.65 ± 7.63 (min=16; max=49). The nurses recorded the highest mean score in the applications aimed at preventing pediatric delirium (13.1 ± 2.65). The nurses recorded the

Table 1. Distribution of the nurses according to their descriptive characteristics (n=80)

Descriptive characteristics	n	(%)
Gender		
Female	63	78.70
Male	17	21.30
Age		
18–23 years	13	16.25
24–29 years	62	77.50
30 years and above	5	6.25
Education		
High school	25	31.3
Associate degree	10	12.5
Bachelor's degree	40	50.0
Master's degree	5	6.2
ICUs		
Pediatric ICU	31	38.7
General ICU	24	30.0
Pediatric coronary ICU	14	17.5
Cardiovascular surgery ICU	11	13.8
Working experience		
0–1 year	12	15.0
1–5 years	44	55.0
6–10 years	20	25.0
11 years and above	4	5.0
Educated on pediatric delirium in nursing education		
Yes	17	21.3
No	63	78.7
Educated on pediatric delirium during in-service training		
Yes	21	26.3
No	59	73.7
Pediatric delirium information source*		
Internet	49	61.3
Occupational book	27	33.8
Scientific journal/article	22	27.5
Congress and seminar	14	17.5
Others (clinic area)	5	6.2

* Since more than 1 answer was given, n increased.

lowest score (0.44 ± 0.57) from the question, "What are the neurotransmitters' roles in the development of pediatric delirium?" (Table 4).

Table 2. Knowledge of nurses toward pediatric delirium (n=80)

Definition of delirium	n	%
Correct identification	45	59.2
Misidentification	35	45.8
Causes of delirium*		
Sedating drugs	64	80.0
Polypharmacy	55	68.8
Mechanic ventilation support	52	65.0
Using opioid	47	58.8
Delirium symptoms*		
Agitation	65	81.3
Disorientation	62	77.5
Change in sleep-wake cycle	60	75.0
Hallucination	58	72.5
Hyperactivity	41	51.3
Excessive concern for the environment	13	16.3
Increased attention	13	16.3

* Since more than 1 answer was given, n increased.

Relationship between the mean scores of Nurses' Pediatric Delirium Knowledge and Attitudes Questionnaire and Sociodemographic characteristics

Table 5 shows the distribution of pediatric delirium knowledge and attitude scores according to nurses' education levels and the ICUs they work in, the total years of employment, and the status of receiving education about pediatric delirium. When the knowledge and attitude scores of the nurses were evaluated according to their education level and ICUs they work, it was determined that the score of at least one group was statistically different ($\chi^2=16.434$, $P < 0.05$; $\chi^2=16.434$, $P < 0.05$, respectively). The source of the difference was investigated, and the knowledge and attitude scores of the nurses with master's degree were found higher than the scores of those who graduated high school ($Z=-2.368$, $P < 0.05$). The knowledge and attitude scores of the nurses working in the general ICU were found higher than the scores of those working in the cardiovascular surgery ICU and pediatric coronary ICU ($Z=-2.725$, $P < 0.05$; $Z=-3.093$, $P < 0.05$, respectively). Furthermore, the knowledge and attitude scores of the nurses working in the cardiovascular surgery ICU were lower than the scores of those working in the pediatric ICU ($Z=-2.254$, $P < 0.05$). There were no statistically significant differences according to nurses' total years of employment ($R=0.061$, $P > 0.05$) and the state of receiving training on pediatric delirium in nursing education or clinic ($Z=-0.424$, $P > 0.05$; $Z=1.254$, $P > 0.05$, respectively).

Discussion

In this section, the results of the study, which was conducted to determine the knowledge and attitudes of the nurses concerning pediatric delirium, were discussed. Most of the nurses, who took part in the present study, did not receive training on pediatric delirium during neither occupational (78.7%) nor in-service training (73.7%).

Table 3. Attitudes of nurses toward diagnosis, evaluation, and prevention of pediatric delirium (n=80)

Practices and opinions	n	%
Assessing orientation		
Yes	76	95.5
No	4	5.0
Assessing consciousness, cognitive functions, and attention in pediatric patients		
Yes	78	97.5
No	2	2.5
Using a Standard Form for evaluating delirium		
No	38	47.5
Yes	42	52.5
The Glasgow Coma Scale	41	97.6
The Delirium Grading Scale	1	2.4
Opinions on the use of a standard form*		
Provides patient's safety	52	65.0
Facilitates detecting pediatric delirium	50	62.5
Allows me to notice acute changes	49	61.3
Facilitates communication between the medical team	34	42.5
Reduces error probability	33	41.3
Standardizes pediatric delirium screenings	33	41.3
Prevents us from losing time in the clinical environment	15	18.8
Not useful	5	6.3

*Since more than 1 answer was given, n increased.

Furthermore, in the literature, it is reported that nurses receive training on "delirium in adults;" however, they do not receive training on "pediatric delirium."^{20,26,28-32} In the present study, it was determined that most of the nurses obtained information on pediatric delirium from the Internet (61.3%). However, the nurses obtaining information from books and scientific publications were limited in number. Flaigle et al. (2016) and Norman et al. (2017) reported that pediatric nurses obtained information on delirium and nursing management from their clinic experiences.^{1,13} Both the studies were conducted in pediatric ICUs. It is thought that since nurses encounter pediatric delirium cases more often, they gain more experience.

Nurses' assessment of pediatric delirium via standard assessment forms in ICUs facilitates early diagnosis of pediatric delirium.^{2,4,8,12,14,33-35} In this study, in the ICUs where the present study was carried out, a specific form is used to particularly assess pediatric delirium. However, 52.5% of the nurses reported that they used a standard form for pediatric delirium assessment. A previous study found that the use of a standard form in pediatric delirium assessment is limited.^{1,13,36,37} Kudchadkar et al. (2014) stressed the inadequacy of delirium assessment worldwide by stating that 71% of health-care

Table 4. Distribution of the scores obtained by the nurses from the answers to the pediatric delirium knowledge and attitude form (n=80)

Questions	Mean±SD (Min.-Max.)
Definition of delirium	1.69±1.49 (0-3)
Risk factors for pediatric delirium	4.47±2.09 (0-10)
Neurotransmitters taking place in pediatric delirium	0.44±0.57 (0-2)
Information statements concerning applications aimed at preventing the development of pediatric delirium	13.1±2.65 (7-18)
Symptoms and signs of pediatric delirium	5.21±2.13 (1-9)
Advanced consequences of pediatric delirium	2.22±1.12 (1-4)
Attitudes concerning pediatric delirium management	9.52±2.75 (4-14)
Total knowledge and attitude score	36.65±7.63 (16-49)

professionals did not use a standard form in pediatric delirium assessment.⁶ Furthermore, McGetrick et al. (2019) determined that not all nurses used a standard assessment tool for pediatric delirium assessment.²⁵ Lack of a standard pediatric delirium assessment form in the clinics of the nurses who took part in the present study and inadequacies in the assessment were similar to the literature.

Nearly all (97.5%) of the nurses (52.5%) were stating that they used a standard form in pediatric delirium assessment using the Glasgow Coma Scale in pediatric delirium assessment. Similarly, Flaigle et al. (2016) and McGetrick et al. (2019) found that the nurses assessed pediatric delirium via the Glasgow Coma Scale.^{1,25} In contradiction to the nurses who took part in the present study, all of the nurses in the study by Norman et al. (2017) reported that the Glasgow Coma Scale could not be used as a pediatric delirium assessment tool.¹³ In the study by Staveski et al. (2018), 39% of the participants who reported that they assessed pediatric delirium via a standard assessment form used the Pediatric Confusion Assessment Method in ICU Scale (pCAM-ICU) and 31% used the Cornell Pediatric Delirium Assessment Scale.²⁰

In this study, we determined that the nurses found the use of a standard scales in delirium assessment necessary due to reasons such as (a) procurement of patient safety (65%; n=52), (b) facilitation of diagnosis (62.5%; n=50), and (c) realization of acute changes in patients (61.3%; n=49). In the study conducted by Abusaad et al. (2017), examining the views of nurses on the use of a standard form, most of them found the use of a standard form complex and they reported that they did not see themselves as adequate to make an assessment, it did not contribute to the recovery of patients, and they had no time.²⁹

In order to identify pediatric delirium early and prevent its complications, it is crucial for pediatric nurses to neurologically assess their patients regularly.^{28,30,31} The fact that most of the nurses in the present study assessed orientation, consciousness, cognitive functions, and attention in their pediatric patients showed that they had a correct approach to the matter. Similarly, the studies found that

Table 5. Distribution of the pediatric delirium knowledge and attitude mean scores of the nurses according to their descriptive characteristics (n=80)

Descriptive characteristics	Knowledge and attitude score Mean±SD (Min.-Max.)	Significance
ICUs		
General ICU	40.0±7.84 (16-49)	$\chi^2=16.434$ $P=^a0.001^*$
Cardiovascular surgery ICU	31.27±8.27 (23-46)	
Pediatric coronary ICU	32.36±6.52 (19-40)	
Pediatric ICU	37.9±5.94 (23-46)	
Education		
High school	34.24±7.40 (22-47)	$\chi^2=7.511$ $P=^a0.047^*$
Associate degree	37.50±8.73 (16-48)	
Bachelor's degree	37.13±7.37 (19-49)	
Master's degree	43.20±5.17 (36-49)	
State of receiving education		
Educated on delirium during in-service training	38.24±8.18 (16-49)	$Z=-1.254$ $P=^b0.211$
Not educated on delirium during in-service training	36.08±7.42 (19-49)	
State of receiving training		
Educated on delirium during nursing education	36.12±7.40 (16-46)	$Z=-0.424$ $P=^b0.671$
Not educated on delirium during nursing education	36.79±7.75 (19-49)	
Working experience		
0-1 year	37.58±2.99 (33-44)	$R=0.061$ $P=^c0.593$
1-5 years	39.45±7.87 (19-49)	
6-10 years	36.0±9.69 (16-49)	
11 years and above	44.75±5.9 (36-49)	

^aKruskal-Wallis Test, ^bMann-Whitney U test, ^cPearson's correlation coefficient, * $P<0.05$.

the intensive care nurses cognitively assess their patients by neurological examination.^{28,31} In the literature, it is reported that parent assessment is also one of the most important criteria in identification of pediatric delirium. As parents easily notice behavioral changes in their children, it is crucial that they be included in the treatment and care process of the child.^{3,14,32-35} It was determined that only 41.3% of the nurses who took part in the present study continuously enabled the children to see their families. The nurses reported that 33.7% of the parents communicated with their children "only at visit hours" and 25% "whenever necessary," which shows that there were inadequacies in enabling the communication between parents and the child. As children receiving treatment in ICUs are in a strange environment

far from their parents, this increases their fear, anxiety, and social isolation. As a result of this, the prevalence of pediatric delirium also increases.^{7,13,14} Therefore, it is recommended that parents be included in care of the child and their communication be supported in maintaining daily care and routines in the intensive care environment.^{14,32,33} Garros et al. (2019) reported in their study that there was a direct proportion between the frequency of seeing parents in ICUs and the rate of recovery and seeing parents reduced the anxiety and stress of patients.³⁴ Staveski et al. (2018) reported that 94% of pediatric nurses included parents in care of the child and the delirium assessment process.²⁰

In pediatric delirium management, it is important for intensive care nurses to be able to define delirium.^{29,36-39} In the present study, nearly all of the nurses who participated in the study (95%) reported that they could define delirium. However, when they were asked to define it, 59.2% of them were able to define it correctly. In the literature, it has been reported that nurses are not able to define delirium adequately due to lack of knowledge.^{1,25} In the present study, it was determined that there was a lack of knowledge in delirium definitions of the nurses, especially concerning the symptoms and signs of pediatric delirium. The pediatric delirium knowledge and attitude scores of the nurses were assessed using the pediatric delirium knowledge and attitude form. The mean attitude and knowledge score of the nurses was 36.65 ± 7.63 . In this study, the score indicated that their pediatric delirium knowledge and attitudes were at a "medium" level. This was thought to be associated with the fact that most of the nurses who participated in the present study did not receive training on pediatric delirium. Sari (2015) and Gilliland (2018) examined the level of knowledge of nurses about delirium and reported that, unlike the finding of our study, nurses had a "high" level of knowledge.^{26,40}

When assessing the knowledge and attitude scores of the nurses according to their educational level and clinic, it was determined that the score of at least one group was statistically different. While investigating the source of the difference, it was determined that the knowledge and attitude scores of the nurses with master's degree were higher than the scores of the high school graduate nurses. Furthermore, Sari (2015) and Şahin (2019) reported in their study that as the educational level of nurses increased, their knowledge level concerning delirium increased, which is compatible with the present study.^{26,30} It was found that the knowledge and attitude scores of the nurses working in the general ICU were higher than the scores of those working in the cardiovascular surgery ICU and pediatric coronary ICU. Furthermore, the knowledge and attitude scores of the nurses working in the cardiovascular surgery ICU were lower than the scores of those working in the pediatric ICU. The reason that the general ICU nurses had higher knowledge and attitude scores was thought to be associated with the fact that they usually provide care to neurological patients who often experience pediatric delirium. On the other hand, since nurses working in cardiovascular surgery ICUs provide care to both adult and pediatric patients, they encounter patients who develop pediatric delirium less often. Therefore, it was thought that they had lower knowledge and attitude score. In the study conducted by Sari (2015), it was reported that there was no significant difference between the delirium knowledge and attitude scores of the nurses according to their clinics.²⁶

When assessing the knowledge and attitude scores of the nurses according to their working experience, it was determined that there

was no statistically significant difference. In this study, there was no significant difference between receiving education about pediatric delirium and knowledge level of nurses. On the contrary, in the literature it has been reported that receiving education on pediatric delirium increases knowledge level of nurses,^{6,30} while working experience does not affect it.^{28,31}

Limitations

The study was carried out in ICUs where care and treatment of pediatric patients in different branches of a hospital in Istanbul, Türkiye, are maintained. Therefore, the study results can only be generalized to this nurse group.

Conclusion

In this study, it was determined that the knowledge level of the nurses concerning pediatric delirium was medium, and they adopted attitudes increasing the prevalence of pediatric delirium and needed reliable knowledge. In this regard, in order to detect pediatric delirium in the early period and manage it properly, it is recommended that training programs be arranged for intensive care nurses. Furthermore, the use of a pediatric delirium assessment form with proven validity and reliability in ICUs should be extended and evidence-based care guidelines should be created.

Ethics Committee Approval: Before the study was conducted, ethics committee approval was obtained from the Non-Interventional Clinical Researches Ethics Committee of Acibadem University (Approval Number: 2019/16-5, Date: 17.10.2019).

Informed Consent: Written and verbal consent was obtained from the participants in this study.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept – İ.E., E.K.; Design - İ.E., E.K.; Supervision - E.K.; Fundings - İ.E., E.K.; Materials - İ.E., E.K.; Data Collection and/or Processing - İ.E.; Analysis and/or Interpretation - İ.E., E.K.; Literature Review - İ.E.; Writing - İ.E., E.K.; Critical Review - E.K.

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