Journal of Applied Holistic Nursing Science
Vol. 1, No. 2, February 2025
https://doi.org/10.70920/jahns.v1i1.183

Original Research/Systematic Review

Nursing Care for Babies with Febrile Convulsion in the Child Room

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ABSTRACT

Background: *Febrile seizures are a condition of seizures that occur in children caused by fever above 38°C without intracranial infection. Complications can cause children to experience cerebral palsy, motor weakness, slow speech and movement, and cognitive delays. Data from the Children's Room of the Mohammad Natsir Hospital, Solok City in 2022-2023 showed 92 cases of febrile seizures. The purpose of this study was to carry out nursing care for children who experience febrile seizures with a nursing process approach.*

Methods: *The research method used was descriptive with a single case study design. This study was conducted on March 18 - March 20, 2024 with 1 child diagnosed with febrile seizures in the Children's Room of the Mohammad Natsir Hospital, Solok City in 2024. Data collection instruments were, child assessment format, physical examination tools. Data collection methods were interviews, observations, physical examinations, and direct measurements.*

Results: *The results of the assessment were obtained by An. K had a fever, his body felt hot, he had no appetite, the portion he finished was only ¼, and his body temperature was 39°C. Nursing diagnoses obtained, hyperthermia, impaired comfort, and risk of injury. Nursing interventions that can be done, fever management, relaxation therapy, injury prevention. After implementation for 3 days of treatment, the results obtained were improved thermoregulation, increased comfort status, decreased injury levels.*

Conclusion: *To achieve optimal results, it is necessary to carry out appropriate management in nursing care in order to reduce the occurrence of increased body temperature.*

ARTICLE HISTORY
Received : 5-2-2025
Accepted: 28-2-2025

KEYWORDS
Febrile seizures; Nursing care; Fever management.

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Cite this as: Zulharmaswita**.,** Deswita., Novi Herawati., Abd. Gafar., Syahrum., Yulvi Hardoni., Dwi Putri Adinda. (2025). Nursing Care for Babies with Febrile Convulsion in the Child Room.*(JAHNS) Journal of Applied Holistic Nursing Science*,1(2), 59-64. https://doi.org/10.70920/jahns.v1i1.183

INTRODUCTION

One of the indicators of a nation's health is seen from the high or low infant mortality rate. Infant morbidity is the second indicator in determining the level of child health, because health values are a reflection of the weak immune system of infants and toddlers. The morbidity rate can also be influenced by nutritional status, child health service guarantees, child health protection, child social factors, and maternal education.

Various diseases that often infect children include febrile seizures. According to Arifuddin (2016), the most common disease suffered by children is febrile seizures. Febrile seizures are an emergency that requires early treatment, followed by other emergencies that occur in children, such as shortness of breath, persistently increasing body temperature, and physical injury. Seizures that last for a long time (more than 5 minutes) can have harmful effects because lack of oxygen can damage brain cells. The longer and more often seizures occur, the more brain cells are damaged (Resti et al., 2020).

World Health Organization (WHO) in Paudel's research, in 2019 it is estimated that the number of children experiencing febrile seizures in the world is more than 21.65 million and more than 216 thousand children died. The percentage of fever incidence under the age of 4 years is around 3-4% and after the age of 4 years, the percentage of fever incidence is around 6-15%. The incidence of febrile seizures in Indonesia in 2017, 17.4% of children experienced febrile seizures and experienced. Increased in 2018 with an incidence of seizures of 22.2% (Aprilia & Kusnantoro, 2022).

Based on data in the children's room of Mohammad Natsir Hospital, Solok City, febrile seizures are included in the 10 most common diseases in the children's room in 2023. From January to November 2023, there were 92 cases of febrile seizures in the children's room. The number of febrile seizures is still high due to delays in handling the child's condition, such as some parents who have minimal knowledge actually take their children to shamans so that there is often a delay for officers in handling which continues to febrile seizures (Rasyid et al., 2019). The impact of febrile seizures is quite dangerous for children. Some diseases caused by febrile seizures are cerebral palsy or brain paralysis, motoric delay (slow motor or movement), speech delay (slow speech) and cognitive delay (slow cognitive), and can also cause paralysis, epilepsy, behavioral disorders and even cause mental retardation (Mariyani & Sinurat, 2022).

Based on research by Susanti & Wahyudi, (2020) the factor that causes febrile seizures in children is the fever itself. Fever with a body temperature of $\geq 38^{0}$C is something that must be watched out for in children because it can potentially cause febrile seizures. The nursing problem that can be caused comprehensively in children with febrile seizures is hyperthermia. Apart from hyperthermia, there are also other nursing problems such as ineffective breathing patterns and risk of injury (O. R. Rahayu et al., 2021). Comprehensive nursing management of febrile seizures in children can be done in various ways. Officers can manage body temperature in the form of increasing fluid and nutritional intake according to needs, monitoring input and output, monitoring the child's body temperature, compressing to the tepid water sponge technique. In addition, they can also monitor breathing patterns and maintain airway patency (Hasani et al., 2023).

Based on the results of interviews with researchers with officers in the children's room when the child had a febrile seizure, the nursing actions taken to the child were in addition to collaborative actions by officers to monitor the child's vital signs, monitor the child's ADL, and apply hot compresses if the child has a fever. For hot compresses, officers recommend that parents do the hot compresses. Based on the data and problems above, the researcher will conduct a study on "Nursing Care for Children with Febrile Seizures in the Children's Ward of the Mohammad Natsir Regional General Hospital, Solok City in 2024. The purpose of this study is to carry out nursing care for patients experiencing febrile seizures with a nursing process approach in the Children's Ward of the Mohammad Natsir Regional General Hospital, Solok City in 2024.

MATERIALS AND METHOD

The research design used is descriptive with a single case study approach. In this case study research, the application of Nursing Care for Children with Febrile Seizures in the Children's Ward of Mohammad Natsir Hospital, Solok City in 2024 was carried out. The subject of the case study in this study was one child patient with a medical diagnosis of febrile seizures who was treated in the children's ward of Mohammad Natsir Hospital, Solok City in 2024. Data collection used a child nursing care assessment format with interview data collection techniques, direct measurement, observation, and documentation studies. Data analysis used a nursing process approach.

RESULTS

The results of the assessment obtained by the researcher on An. K through interviews, physical examinations, measurements, and documentation studies are:
An. K is 2 years and 4 months old, born on March 28, 2024, female. The medical diagnosis of An. K is febrile seizures. Mrs. S said that the child had a fever since 1 day ago, body temperature 39 oC, skin looks reddish, skin feels hot, tachycardia pulse: 145xi / m. In addition, data was also obtained from Mrs. S saying that if her child cries continuously, is difficult to calm down and has difficulty sleeping, An. K looks restless, An. K often cries, there are symptoms of distress, fear when the nurse comes in. Internal risk factors were obtained, namely biochemical dysfunction.

The nursing problems that arise are (1) Hyperthermia related to the disease process characterized by a body temperature of 39ºC, skin looks reddish, body feels hot, tachycardia 145x / m. (2) Disturbed sense of comfort related to environmental stimulus disorders characterized by An. K looks restless, An. K often cries, There are symptoms of distress, fear when the nurse enters. (3) Risk of injury is indicated by biochemical dysfunction.

Nursing interventions for nursing problems that arise in children are fever management, relaxation therapy, injury prevention. Planned actions are in accordance with the Indonesian Nursing Intervention Standards (SIKI).The implementation of nursing for the problem of Hyperthermia related to the disease process (D.0130) is to monitor vital signs, monitor complications due to fever, perform tepid sponge, recommend bed rest, recommend drinking more, collaborate in providing fluids and electrolytes.

The implementation of nursing for the problem of Impaired sense of comfort related to environmental stimulus disorders (D.0074) is to identify relaxation techniques that have been effective, use loose clothing, use a soft tone of voice with a slow and rhythmic rhythm, use relaxation as a supporting strategy with analgesics or other medical actions, recommend taking a comfortable position.

Implementation of nursing care for the problem of Risk of injury marked by biochemical dysfunction (D.0136) is to identify environmental areas that have the potential to cause injury, Provide a bedpan or urinal for elimination in bed, use bed protection according to health care facility policies, discuss with family members who can accompany the child.

After implementation for 3 days from March 18-20, 2024. In the nursing diagnosis of hyperthermia, an evaluation was obtained, namely on the 2nd day thermoregulation improved, the patient went home marked by a normal body temperature of 37.4 ºC, the skin surface was no longer red, the pulse had improved 130 xi / m. In the nursing diagnosis of impaired comfort, an evaluation was obtained,

namely on the 2nd day the comfort status increased, marked by An. is no longer restless, sleep patterns have improved, An. K takes a nap for 1-2 hours at night for 9 hours, crying has decreased / decreased, irritability has decreased and can relax. In the nursing diagnosis of risk of injury, an evaluation was obtained, namely on the 3rd day the level of injury decreased. marked by improved sleep patterns, improved pulse 130 xi/m, improved respiratory rate, 20 xi/m.

DISCUSSION

Based on the results of the case study of patient An, K, the complaints mentioned by his mother were that An.K had a fever since last night, his skin felt hot, his skin surface was red, he had convulsions 3 times at home which lasted approximately 3 minutes. At the time of the temperature assessment, An. K's temperature was 39oC. An.K's entire body felt hot and his skin surface was red, his extremity muscles were tense, slightly difficult to extend, and he experienced a decrease in consciousness for approximately 1 minute. In An.K, only a routine blood test was performed with the results of Hemoglobin 10.3g g/dl, leukocytes 7,200/mm3, platelets 395,000/mm3, hematocrit 33.1%. Based on other researchers at the assessment stage, referring to the assessment contained in the concept of febrile seizures, it is stated that the main complaints in children with febrile seizures are increased body temperature (fever), fainting lasting 30 seconds to 5 minutes, clonic movements, bitten tongue or cheeks, clenched teeth or jaw, incontinence, respiratory disease apnea, blue skin (Kusyani et al 2022). According to the concept of febrile seizures, children who often experience febrile seizures are female children, then the age range of children who experience febrile seizures is from 5 months to 6 years (Apriany et al. 2022). According to Simanjuntak et al (2022) supporting examinations for febrile seizures are laboratory examinations, lumbar puncture, electroencephalography (EEG), imaging.

Based on the researcher's assumptions in the assessment, it is true that children who experience febrile seizures are in the age range of 5 months-6 years, female, have above normal temperatures and experience jerking and tense movements and experience decreased consciousness.

Nursing planning is prepared based on the nursing diagnosis found in the case. The nursing plan is made based on the Indonesian Nursing Outcome Standards (SLKI) and the Indonesian Nursing Intervention Standards (SIKI). The nursing plan that will be carried out for the nursing diagnosis of Hyperthermia related to the disease process is monitoring vital signs n: 145x / i, s: 39ºC, p: 23 times / i, monitoring complications due to fever, covering the body with blankets / clothes properly, doing tepid sponge (hot compress for 1 hour), recommending bed rest, recommending drinking more, collaborating on giving fluids and electrolytes (intravenous kaen 1b 12 tpm micro).

Based on the researcher's analysis, the tepid water sponge technique is more effective than warm compresses in reducing the body temperature of children when they have a fever (Pangesti, Nova Ari, et al, 2020). Based on the researcher's assumptions on An.K, tepid water sponges were indeed more effective in lowering body temperature compared to regular compresses given to one of the children with a fever next to An.K.

Disturbance of comfort, disturbance of comfort, the implementation carried out is to identify relaxation techniques that have been effective (listening to children's music), wearing loose clothing (shorts and singlets only), using a soft tone of voice with a slow and rhythmic beat (telling stories to children in a soft tone), using relaxation as a supporting strategy for medical procedures (relaxation listening to children's music),

recommending taking a comfortable position (with a sleeping position facing the mother/being carried).

Based on the researcher's analysis, relaxation techniques do show significant changes in children who are excessively anxious when undergoing medical procedures (Wadu, Novita M & Henny, 2021). Based on the researcher's assumption, providing relaxation techniques to children is very influential in calming children when they are in fear or discomfort, unlike children who are left with fear or anxiety and are not given relaxation in medical procedures.

Efforts to prevent the risk of injury or falls in children by ensuring that safety fences or barriers must be installed to minimize the risk of injury to children (Simanjuntak, Ipundaniati et al, 2022). According to researchers, installing guardrails for children is very much needed in reducing the risk of injury to children, sometimes parents do not install guardrails because they want to sleep with their children

CONCLUSION

The results of the assessment on An. K found that An. K experienced febrile seizures, aged 5 months-6 years, female, above normal temperature and experienced jerking and tense movements and decreased consciousness. Nursing diagnoses that can be formulated for An. K who experienced febrile seizures include hyperthermia related to the disease process. Disturbance of comfort related to environmental stimulus disorders. The risk of injury is characterized by biochemical dysfunction. The planned nursing interventions are in accordance with the problems found in An. K, namely fever management, relaxation therapy, injury prevention. In accordance with the priority of the problems found and referring to the diagnosis, outcomes and interventions (sdki, slki, siki) and other supporting research results. After implementation for 3 days of treatment, the results obtained were improved thermoregulation, increased comfort status, decreased injury levels. To achieve optimal results, it is necessary to carry out appropriate management in nursing care in order to reduce the occurrence of increased body temperature.

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