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Case Study of Nursing Care in Children of Typoid Fever with Ineffective Intervention of Termoregulation in Child Care Room Rsia Sitti Khadijah

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Abstract. *Good fulfillment of children's basic needs will ensure that children's health is maintained and their development will not be disturbed. The most dangerous threat in reducing children's health status is infectious disease. One of them is typhoid fever. The main complaint found in children is fever. Fever in children requires separate treatment and handling that is different compared to adults. To overcome this problem, a typhoid action plan is carried out, namely monitoring the temperature at least every 2 hours, giving warm water compresses, giving parental fluids, and collaborating with doctors about administering antipyretic drugs. This research is a quantitative study using a quasi-experimental design that provides treatment or intervention to research subjects and then the effect of the treatment is measured and analyzed. The research design used is a case study design approach. This design is used to see changes after being given warm compresses to patients with impaired thermoregulation. The sample in this study were 3 respondents, the data collection technique was using observation sheets. The results of this study have shown an optimal scale because children's thermoregulation is effective.*

Keywords: *Children, Typhoid fever, Ineffective Thermoregulation, Warm Compresses*

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INTRODUCTION

Children are individuals aged 0-18 years who are seen as unique individuals who have the potential to grow and develop. Children are not miniature adults, but individuals who are in the process of growing up and have specific needs. As long as they are healthy and vulnerable to illness, children need the help of nurses, both directly and indirectly, so that their growth and development can continue. Parents are believed to be the most appropriate and best people in providing care to children, both in health and illness, while nurses provide assistance if the family is unable to do so (Supartini, 2014).

According to Hockenberry (2009) children can be grouped according to their developmental phases. The phases of child development according to Hockenberry (2009) consist of the prenatal phase, the neonatal phase, the infant phase, the toddler phase, the preschool phase, the school phase, and the adolescent phase. The prenatal phase covers the period of pregnancy until the child is born, the neonatal phase is the period when the baby is born until the age of 28 days. The infant phase is the phase when

the baby is 1 month to 12 months old. The toddler phase is when the child is 1 to 3 years old. After this phase will enter the preschool phase when the child enters the age of 3 to 6 years. The school phase is the phases of children aged 6 to 12 years and finally the adolescent phase, when children enter the age of 12 to 18 years.

Typhoid fever is an acute infectious disease of the small intestine caused by the bacterium Salmonella thypi (House et al., 2001). Typhoid fever can be transmitted by means commonly known as 5F, namely Food, Fingers or nails, Fomitus, Fly, and Faeces. Salmonella thypi can be transmitted through intermediaries of flies, then the bacteria will enter the body of a healthy person if someone does not pay attention to personal hygiene (Navalia, 2021).

According to data from the World Health Organization (WHO) estimates that there are around 17 million cases worldwide with 600,000 people dying from this disease and 70% of deaths occurring in Asia. WHO states the incidence rate is 150/100,000 per year in the United States and 900/100,000 per year in Asia (WHO, 2016). The incidence of typhoid fever cases in Indonesia is estimated to average 900,000 cases per year with more than 20,000 deaths. The number of incidents of typhoid fever in 2011 in hospitals was 80,850 cases in patients with typhoid fever totaling 41,081 cases in hospitalized patients and the number of patients who died was 276 people. The mortality rate is estimated at around 6-5% as a result of delays in receiving treatment and imperfect treatment processes. In general, the incidence of typhoid fever in children is usually over 1 year old and is highest at school age (Prehamukti, 2018).

The main complaint found in children is fever. Fever in children requires separate treatment and management that is different compared to adults. This is because, if the action in dealing with fever is not appropriate and slow it will result in disrupted growth and development of the child. Fever can endanger the safety of children if not treated quickly and appropriately will cause other complications such as hyperthermia, febrile seizures and decreased consciousness

To overcome these problems, a typhoid action plan is carried out, namely monitoring the temperature at least once every 2 hours, monitoring the color of the skin and mucous membranes, creating a comfortable environment, giving warm water compresses, covering the patient with a thin blanket, giving parental fluids, and collaborating with doctors. regarding antipyretic medication. Handling of fever can be done with pharmacological measures, non-pharmacological measures or a combination of both. Pharmacological measures are giving antipyretic drugs and antibiotics. Antipyretics that are often used are paracetamol. Antibiotics that can treat typhoid fever that are often used are chloramphenicol, ampicillin, co-trimoxazole, amoxicillin, and non-pharmacological measures to reduce fever such as giving lots of drinks, placing in a room with normal temperature, using clothes that are not thick, and applying warm compresses (Marni, 2016).

The action of a warm compress is an independent action from the nurse, but it is often borne by the patient's family. So far, cold compresses or ice have become a habit that mothers apply when their child has a fever. Compresses using ice are no longer recommended because in fact the fever does not go down and even rises and can cause children to cry, chills, blueness, therefore warm water compresses are more recommended (Marni, 2016).

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Based on the data and information above, the authors are interested in taking a case of typhoid fever with the title "Thermoregulation Intervention in Children with Thyphoid Fever at RSIA Siti Khadijah, Gorontalo City".

METHODS

This research is a quantitative study using a quasi-experimental design that provides treatment or intervention to research subjects and then the effect of the treatment is measured and analyzed. The research design used is a case study design approach. This design is used to see changes after being given warm compresses to patients with impaired thermoregulation. Inclusion criteria: Children who experience thermoregulation disorders in the children's room at RSIA Sitti Khadijah. Exclusion Criteria: Children who do not experience thermoregulation disorders.

RESULTS AND DISCUSSION

On the problem of ineffective thermoregulation and hyperthermia in patients with typhoid fever. From the results of the study conducted on the two patients, the authors found hyperthermia problems in both patients with supporting data such as the appearance of signs and symptoms such as the mother saying the fever had been going up and down for 5 days, the mother said the fever occurred in the morning and evening before sunset, Blood pressure: 90/ 70 mmHg, pulse rate: 140x/minute, respiratory rate: 22x/minute, body temperature; 38.7C. General condition looks weak, warm extremities, Composmentis awareness. While patient 2, the mother said the patient had a fever since 5 days ago, Blood Pressure : 100/70 mmHg, Pulse Frequency : 120x/minute, Respiratory Frequency : 22x/minute, Body Temperature ; 37.7C. General condition looks weak, warm extremities, Consciousness Composmentis, Salmonella thypi O : 1/320, Salmonella parathypi OA : 1/320, Salmonella parathypi HA : 1/160.

This is in accordance with the theory which states that the examination is used for the diagnosis of typhoid. The higher the titer, the greater the chance of being infected with this bacteria. Widodo (2014) In a typical case, the fever lasts 3 weeks, is remitten febrile and the temperature is not very high. The first week, the body temperature gradually rises every day, decreases in the morning and increases again in the afternoon and evening.

The author prioritizes this problem to reduce body temperature to within normal limits. Because if not treated immediately will result in dehydration. Typhoid fever patients will experience a typical fever because the body's ability to regulate body temperature is being disturbed.

Related to this diagnosis being established, the diagnoses that appeared in the two patients tended to be the same. Therefore the interventions carried out in the two patients were the same, such as looking at skin color, measuring body temperature, calculating BP, N and RR, advising fluid and nutritional intake, advising parents to give warm compresses around the axilla and provide clothes that are thin and absorb sweat.

Typhoid fever patient recovery can be measured by body temperature within the normal range, between 36.5°C – 37.5°C, pulse and respiration within the normal range and no change in skin color.

After three days of treatment, the researchers obtained evaluation results that the hyperthermia problem was successfully resolved in patient 1 and patient 2 using the intervention that had been planned and implemented. Where is the body temperature in patient 1 SB: 37.5 °C and patient 2 SB: 37.4°C.

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In the case of nutritional deficit nursing, patients diagnosed with nutritional deficits found symptoms such as the patient's mother saying her child had a lack of appetite, food portions were not eaten, only 3 spoons per meal, nausea, vomiting accompanied by heartburn, weakness. The results of hemoglobin examination were 12.2 gr/dl, leukocytes 13,860 uL, hematocrit 38%.

This is in accordance with the theory, one of the factors that influence the fulfillment of nutrition is infection or disease. The infection that is often suffered by children is typhoid fever which is an acute infection found in the digestive tract. Nutritional deficits in children with typhoid fever can occur nausea, vomiting, dry lips, decreased appetite and weight loss. According to Marni (2016) explained that the symptoms of typhoid disease include digestive tract disorders including nausea, vomiting, anorexia. This happens because food mixed with bacteria has entered the small intestine through the lymph vessels which eventually causes necrosis and inflammation resulting in fever, feeling of lack of appetite, nausea and sometimes accompanied by vomiting.

According to the authors, nutritional deficits can occur due to nausea, vomiting and decreased appetite due to inflammation of the small intestine and cause malabsorption so that nutritional needs are not met and weight loss occurs.

Therefore, interventions carried out on patients include asking about the child's nutritional status, asking about the child's favorite food, observing the child's interaction with parents, checking dry skin and skin turgor, asking if there is nausea and vomiting, recommending eating little but often and collaborating. with a nutritionist to determine the amount of calories and nutrients needed.

The results of the evaluation after the researchers carried out the treatment for 3 days, the problem of nutritional deficits was resolved, the patient finished the portion of food given and his appetite improved.

CONCLUSION

Based on the results of a study of nursing care in children with typhoid fever with thermoregulation disorders at RSIA Sitti Khadijah, Gorontalo City. The author can draw conclusions as follows; (1) The results of the study obtained from the three children showed the same signs and symptoms. Complaints felt by the 1st child were also felt by the 2nd and 3rd children. The signs and symptoms that appeared felt by the three children were fever, nausea, vomiting and no appetite to eat and drink, the results of a positive widal test were 1/320 things this shows that if a child is diagnosed with Typhoid Fever; (2) The nursing diagnoses that appeared in the three children were the same, namely Hyperthermia related to the disease process d.d above normal body temperature, red skin, tachycardia, warm skin. This diagnosis appeared in the three clients because of the same signs and symptoms and complaints that were felt by the two clients; (3) After determining the diagnoses of the three subjects, the next step is to determine the nursing plan that will be carried out in patients with thermoregulation problems, namely carrying out independent nursing actions, one of which is giving warm compresses to reduce the patient's body temperature; (4) Nursing implementation is adjusted to the action plan that the author has compiled. Nursing implementation for thermoregulation problems is to apply warm compresses to the axilla and temporal areas; (5) The results of the evaluation carried out by the author in the three cases were carried out for 3 days of treatment by the author. The results of the evaluation carried out by the author on client 1 indicate that the nursing problems experienced have been resolved. Which can be seen from the decrease in the patient's body temperature from the initial assessment of 38.7c

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after being carried out for 3 days to 37.7c. The evaluation results for the second patient carried out an initial assessment of 38.5c after being treated for 3 days to 37.5c. in the third patient, after the initial assessment was carried out, it was 38.9c after being carried out for 3 days to 37c.

REFERENCES

Afriana (2016). *Asuhan Neonatus Bayi Balita dan Anak Prasekolah*. Yogyakarta: Trans Medika.

Almatsier, S. (2010). *Prinsip Dasar Ilmu Gizi*. Jakarta: Gramedia Pustaka Utama

Hockenberry, M. J., Hooke, M. C., Gregurich, M., & McCarthy, K. (2009). Carnitine plasma levels and fatigue in children/adolescents receiving cisplatin, ifosfamide, or doxorubicin. *Journal of pediatric hematology/oncology*, *31*(9), 664-669.

House, D., Bishop, A., Parry, C., Dougan, G., & Wain, J. (2001). Typhoid fever: pathogenesis and disease. *Current opinion in infectious diseases*, *14*(5), 573-578.

Marni. (2016). *Asuhan Keperawatan Anak Pada Penyakit Tropis*. Jakarta : Erlangga.

Navalia. (2021), Demamtifoid. (online), https://www.academia.edu/donload/64665166/DEMAM%20THYFOID. Diakses tanggal 2 oktober 2021

Prehamukti, A, A. (2018). Faktor lingkungan dan perilaku terhadap kejadian demam tifoid. *Higeia Journal Of Public Health, 1*(2), 587-598.

Supartini, Y. (2014). *Buku Ajar Konsep Keperawatan Anak*. Jakarta : EGC

Widodo, D. (2010). *Ilmu Prnyakit Dalam Jilid 1 Edisi 6; Demam Tifoid*. Jakarta : Interna Publishing.