

Nursing Care to An. A with a Medical Diagnosis of Acute Gastroenteritis (GEA) in the Carnation Room of Waled Hospital, Cirebon Regency: A Case Study

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Abstract

Gastroenteritis is one of the most common diseases in children worldwide. This disease is the third contributor to the morbidity and mortality of children in various countries, including Indonesia. Acute gastroenteritis is characterized by watery stools that come up abnormally frequently three or more times per day and may contain mucus or blood. Find out comprehensive nursing care for children with a medical diagnosis of Acute gastroenteritis. This research uses a case study method with female respondents with a medical diagnosis of acute gastroenteritis. Data collection techniques were carried out by interview (the results of the interview contained client identity, main complaints, and history of current and past illnesses), observation and physical examination. This research was carried out in the Anyelir Room at Waled Hospital, Cirebon Regency, for three days (January 22nd—24th, 2024). The results of case studies in children with acute gastroenteritis obtained diagnoses that are diarrhea, hyperthermia and hypovolemia. After carrying out nursing care for three days, it was found that the three problems were resolved, so the intervention was stopped. Based on the evaluation results, the problems of diarrhea, hyperthermia and hypovolemia in children can be resolved.

Keywords: Children, Nursing Care, Acute Gastroenteritis.

INTRODUCTION

Children are the next generation of the nation. Health is one of the main and very important factors in children's growth and development (Organization, 2017; Prawati & Haqi, 2019; Shabunova & Kondakova, 2014). When a child's health is not healthy, it will have an impact on various things related to growth, development, and various activities that will be carried out (Inten & Permatasari, 2019). Infectious diseases are one of the major public health problems in developed and developing countries. The World Health Organization (WHO) states that infectious diseases are the main cause of death in children (Novard et al., 2019). This research aims to examine the role of nurses in managing diarrhea in children, specifically focusing on acute gastroenteritis, and to evaluate the effectiveness of non-pharmacological pain management strategies.

Dennehy (2019) defines gastroenteritis as inflammation of the gastric mucosa and small intestine with symptoms of loose stools (diarrhea) more than three times within 24 hours, caused by pathogenic bacteria, viruses, and parasites. In addition, this disease can be characterized by comorbid symptoms such as nausea, vomiting, heartburn, abdominal pain, fever, tenesmus, and symptoms of dehydration.

Based on data obtained from the WHO (World Health Organization) in 2023, diarrhea is the second disease that causes death in children and toddlers (under five years old) after pneumonia (Alum et al., 2024). Diarrhea has killed about 443,832 children under five years old and 50,851 children aged 5 to 9 years. Some children each year die due to dehydration or loss of large amounts of fluids (Hooper et al., 2014, 2015; Lacey et al., 2019). It is suspected that there are 1.7 billion cases of diarrhea that occur every year. Diarrhea is a disease characterized by a frequency of bowel movements more than three times per day and a diluted consistency. And is an endemic disease that has the potential to cause Extraordinary Events and is accompanied by death in Indonesia, especially in toddlers. The results of Basic Health Research in 2018 showed that the prevalence of diarrhea for all age groups was 8%, toddlers were 12.3%, and infants were 10.6%. Meanwhile, in the 2018 Sample Registration System, diarrhea remained one of the main causes of death in neonates at 7% and in infants aged 28 days at 6% (Mboi et al., 2022).

Based on the 2022 West Java Health Profile, the target of service coverage for toddler diarrhea sufferers who come to health facilities is 10% of the estimated number of toddler diarrhea sufferers (the incidence of toddler diarrhea multiplied by the number of toddlers in one work area within one year). The incidence of diarrhea of all ages nationally is 270 per 1,000 population (Rapid Survey of Diarrhea in 2015). The coverage of diarrhea patients under five served in 2022 was 37.4%. Service coverage for diarrhea patients under five by district/city in 2022, Cirebon district 49.96%, and Cirebon City 75.47%.

This data indicates significant disparities in the management and treatment of toddler diarrhea across different regions. In some areas like Cirebon City, the service coverage exceeds the national average, suggesting better access to healthcare facilities and possibly more effective public health interventions. However, in other regions, the coverage remains low, which could be attributed to various factors such as limited healthcare infrastructure, lack of awareness, and socioeconomic barriers. It is crucial to address these disparities to improve overall health outcomes. Efforts should focus on enhancing healthcare accessibility, increasing public awareness about the importance of seeking medical help for diarrhea, and implementing targeted interventions to ensure that even the most underserved populations receive adequate care. The high incidence of diarrhea underscores the need for robust public health strategies, including preventive measures, prompt treatment, and continuous monitoring to reduce the incidence and improve the management of diarrhea among toddlers.

The impact of physical problems that will occur if diarrhea is not treated will result in a sudden loss of fluids and electrolytes (Radlovic et al., 2015; Sheikh et al., 2018; Tello & Perez-Freytes, 2017). In toddlers, it will cause anorexia (lack of appetite), it reduces nutritional intake, and diarrhea can reduce the intestinal absorption of food juices. In an infectious state, the need for food juices in children with diarrhea will cause malnutrition. If this continues continuously, it will hinder the child's growth and development process. Meanwhile, the psychological impact on children includes children being fussy, whiny, and very dependent on the people closest to them (Mandosir et al., 2023). The actions or roles of nurses that must be carried out on diarrhea patients with the risk of electrolyte imbalance are the provision of

foods containing iron and the provision of foods with little fiber, the administration of special fluids containing a mixture of sugar and salt called dehydration solutions if needed, the administration of antibiotic drugs. Oral fluid administration, such as breastfeeding or formula milk to babies. Fluid administration is very important, considering the most frequent complications that can also lead to the death of dehydrated patients (Malbrain et al., 2020; Voldby & Brandstrup, 2016).

This study contributes to the existing literature by providing a comprehensive analysis of the impact of diarrhea on children's health and development. It highlights the prevalence and severity of diarrhea as a public health issue in Indonesia, backed by data from WHO and local health profiles. The research underscores the importance of timely and effective nursing interventions, including dietary management and fluid administration, to mitigate the risks associated with diarrhea. By evaluating nursing practices in the Carnation Room of Waled Cirebon Hospital, this study aims to improve nursing care protocols and enhance the quality of care for pediatric patients with acute gastroenteritis.

RESEARCH METHODS

This research employs a case study approach combined with qualitative research methods. The data sources for this study were obtained from the patient's family through interviews, observation, and physical examination, as well as a literature review.

The tools used in this study include interview sheets, observation sheets, and recording sheets. Data collection techniques involved interviewing the patient's family to gather information about the patient's condition and care, observing clinical symptoms and the patient's response to treatments, and conducting a physical examination to identify clinical signs of acute gastroenteritis.

In addition, a literature review was conducted to support data analysis and interpretation. The data analysis techniques involved four stages: data collection, data reduction, data presentation, and conclusion drawing.

During the data collection stage, data were gathered from interviews, observations, physical examinations, and literature sources. In the data reduction stage, the collected data were organized and simplified to focus on information relevant to the research objectives. The reduced data were then presented in narrative or tabular form to facilitate further analysis.

Finally, conclusions were drawn based on the analyzed data, linking the findings to existing literature to provide a comprehensive understanding of the case.

RESULTS AND DISCUSSION

The assessment was carried out on January 22nd, 2024, and the results of the assessment that had been carried out on An. A obtained data, namely the client's mother said that her child had diarrhea three days ago with a frequency of bowel movements 4--5 times/day of liquid consistency, warm throat, the child became more fussy and looked restless, the lip mucosa looked dry and pale, the eyes looked sunken, intestinal noise 24x/minute, flatulence, lack of appetite, nausea and vomiting three times since three days ago, fever three days up and down, fever felt during the day and night. So that the child looks weak. examination of vital signs of temperature 38.5^oC, pulse 110x/min, and respiratory rate 24x/min.

Diarrhea is an abnormal or unusual stool production characterized by increased and diluted stools with a frequency of more than three times a day and in neonates more than four times a day, with or without bloody mucus. This is in accordance with Rosyidahinayatur's

research (2019), which states that diarrhea is a condition characterized by changes in the shape and consistency of stool, softening of stool until it dissolves, and an increase in the frequency of bowel movements, usually three or more times a day. Diarrhea is a condition that results in excessive loss of fluids and electrolytes due to bowel movements more than three times a day that have a diluted or liquid consistency. In the patients in this case study, it was found that children defecated more than three times a day.

According to Wijayaningsih (2024), the clinical manifestations of diarrhea in children are that the child becomes whiny, restless, has increased body temperature, decreased appetite, and frequent bowel movements, liquid or watery stools, pain in the anus and surroundings, and there are signs and symptoms of dehydration, decreased skin elasticity, sunken eyes, dry mucous membranes, and the patient is very weak.

Nursing diagnosis is a clinical assessment of the client's response to health problems or life processes that he or she is experiencing, whether actual or potential. Nursing diagnosis aims to identify the response of individual, family and community clients to health-related situations. Based on PPNI (2017) states that the nursing diagnoses that often appear in cases of gastroenteritis are diarrhea related to the infectious process, hyperthermia related to the disease process, and hypovolemia related to the loss of active fluids.

The first nursing diagnosis that appeared in An. A is diarrhea related to the infection process, as evidenced by subjective data the client's mother said An. A defecates with a liquid consistency of 4--5 times a day. Objective data is that the client seems weak, the client looks fussy and restless, the client seems to drink voraciously (thirst), the mucosal membrane is dry, the eyes appear sunken, vital signs of temperature: 38.5°C, RR: 24x/min, pulse: 110x/min. According to SDKI PPNI (2017) signs and symptoms of diarrhea are defecation more than three times in 24 hours, soft or liquid stools, increased peristaltic frequency, and hyperactive bowel noise.

Diarrhea is a disease characterized by a change in the shape of stool with excessive intensity of bowel movements more than three times within a day. When an infection occurs in the digestive tract, it develops in the intestines and damages the intestinal mucosa cells. Thus causing impaired intestinal function in absorbing (absorption) of fluids and electrolytes. The presence of bacterial toxicity will cause disruption of the active transport system in the intestines, as a result of which mucosal cells are irritated, which then causes the secretion of fluid and electrolytes to increase, resulting in diarrhea (Prawati & Haqi, 2019).

The second nursing diagnosis, hyperthermia, is related to the disease process, with subjective data from the client's mother saying that her child's body feels hot up and down during the day and night, and her child becomes more fussy. The objective data were warm palpation, reddish skin, temperature 38.5°C, pulse 110x/min, and respiratory rate 24x/min. According to SDKI PPNI (2017), hyperthermia, which is a body temperature that increases above the normal range of the body due to the cause of the disease process (infection) characterized by signs and symptoms of body temperature above normal values, red skin, and warm skin palpable.

The third diagnosis is hypovolemia related to the loss of active fluids; with subjective data, the client's mother said that her child defecates 4-5 x/day with a liquid consistency. The client's objective data appeared to be weak: mucous membranes were dry, the accruals were warm to the touch, the skin appeared reddish, the temperature was 38.5°C, the pulse was 110x/min, and the respiratory rate was 24x/min. Patients are categorized as moderately dehydrated, as seen from sunken eyes, a general state of restlessness and fussingness, and

mucous membranes appear dry. According to SDKI PPNI (2017), hypovolemia, which is a decrease in the volume of intravascular, interstitial and intracellular fluids, is caused by the loss of active fluid in signs of dizziness and symptoms such as the client feeling weak, complaints of thirst, increased pulse frequency, decreased skin turgor, dry mucosa, increased body temperature.

According to PPNI (2017), nursing intervention states that what is meant by nursing intervention is all treatments carried out by nurses based on clinical knowledge and assessment to achieve the expected outcomes. Based on the Indonesia nursing intervention standards (SIKI) and Indonesia nursing output standards (SLKI). Interventions that are prepared based on the first diagnosis of diarrhea related to the infection process are diarrhea management by identifying the cause of diarrhea, monitoring the color, volume, frequency and consistency of stools, monitoring the amount of diarrhea discharge, providing oral fluid intake (e.g. salt sugar solution, oralite), recommending small and frequent meals gradually and recommending continuing breastfeeding, nursing action is expected for 3 x 24 hours, Diarrhea problems improved with the criteria of stool consistency improved, frequency of defecation improved, intestinal peristalsis improved. The second intervention in the diagnosis of hyperthermia related to the disease process is the management of hyperthermia with body temperature monitoring, loosening or taking off clothing, wetting and rubbing body surfaces, giving oral fluids, recommending bed rest and giving warm compresses, expected nursing action for 3 x 24 hours, hyperthermia problems improve with the criteria for the result of decreased body temperature and decreased redness of the skin. The third intervention, namely hypovolemia related to active fluid loss, is the management of hypovolemia by checking the signs and symptoms of hypovolemia, providing oral fluid intake, recommending increased oral intake, and nursing action is expected for 3 x 24 hours, hypovolemia problems improve with the criteria of improved pulse frequency results and improved mucous membranes.

The implementation of nursing is a series of activities carried out by nurses to help patients overcome the health status problems they face, achieve better health, and achieve the expected standard of results. Activities in the implementation also include continuous data collection, observing client responses during and after the implementation of actions, and assessing new data (PPNI, 2017).

The author carried out the nursing implementation for three days from January 22nd—24th, 2024. The implementation that the author carried out in the diagnosis of diarrhea is related to the infection process, namely identifying the cause of diarrhea, providing oral fluid intake (*oralit*), monitoring the amount of diarrhea excretion, recommending small and frequent portions of the food gradually, advocating avoiding spicy foods and monitoring TTV, monitoring the color, volume, frequency, and consistency of stool as well as promoting intestinal noise. The diagnosis of hyperthermia related to the disease process is implemented for three days. The implementation carried out by the author is monitoring body temperature, loosening children's clothes, providing oral fluids (warm water) and coordinating with families to provide warm compresses to children. The diagnosis of hypovolemia is related to the loss of active fluid. The implementation carried out by the author is to check the signs and symptoms of hypovolemia, provide oral fluid intake, and recommend increasing oral intake.

Nursing evaluation is the final stage of a series of nursing processes that are useful whether the goals of the nursing actions that have been carried out are achieved or need other approaches. Nursing evaluation measures the success of the plan and implementation of nursing actions carried out in meeting the needs of clients (PPNI, 2017). The evaluation

carried out by the author is an evaluation of the results carried out on January 24th, 2024. Evaluation of the diagnosis of diarrhea related to the infection process, namely subjective: the client's mother said her child was no longer diarrhea, bowel movements were no longer fluid, and the client's mother said her child was no longer fussy and sleeping well at night. Objective: temperature 36.5^oC, pulse 110x/min, An. A appears calm, the lip mucosa is moist, and the bowel is noisy 12x/minute. Assessment: problem solved and planning: stop the intervention. The diagnosis of hyperthermia is related to the evaluation disease process, namely subjective: the client's mother said that her child was no longer feverish and not fussy. Objective: the skin no longer looks reddish, the temperature is 36.5 0C, the pulse is 110x/min, An. A looks calm, and the mucosa of the lips is moist. Assessment: problem resolved. Planning: stop RTL interventions: families can give warm compresses if the child has a fever again. In the diagnosis of hypovolemia related to the loss of active fluids, the evaluation is subjective: the client's mother said that her child was no longer having diarrhea, and bowel movements were no longer fluid. Objective: the skin no longer looks reddish, the temperature is 36.5^oC, the pulse is 110x/min, An. A looks calm, and the mucosa of the lips is moist. Assessment: problem resolved. Planning: stop the intervention. It can be concluded that in all three diagnoses, the problem is resolved, and the intervention is stopped.

CONCLUSION

After taking care of nursing, An. A with acute gastroenteritis in the carnation room of Waled Cirebon Hospital on January 22nd—24th, 2024, then the author can hereby draw conclusions, namely:

Assessment to the results of the assessment, the main complaint was in the form of liquid bowel movements with a frequency of 4-5 times a day. Since three days ago, fever, the child became more fussy and looked restless, and the mucosa of the lips looked dry and pale. Supporting examinations on January 22nd, 2024 were hemoglobin 12.3 g/d, erythrocytes 3.73, hematocrit 25%, leukocytes 15/mm³, sodium 128.7 mmol/L, potassium 4.18 mmol/L; chloride 102 mmol/L . examination of stool with yellow results and mushy consistency. Zinc therapy (tablets) 1x20mg, *oralit* (pack) given after chapter, paracetamol syrup 3x80ml, omeprazole 1x10 mg, ceftriaxone 2x350 mg, NaCL 0.9%. The nursing diagnosis is established based on the signs and symptoms felt by An. A the first nursing diagnosis that appears in An. A's problem is diarrhea related to the infection process, and the second hyperthermia is related to the disease process, and hypovolemia is related to the loss of active fluids. Nursing interventions in An. A has been planned according to the diagnosis that has been established, which refers to the SIKI book, SLKI, Based on all the interventions that have been prepared by the author. The implementation of diarrhea management and hyperthermia management, as well as hypovolemia management, was carried out for three days. The evaluation carried out by the author is an evaluation of the results carried out on January 24th, 2024. From the three diagnoses, it can be concluded that the problem is resolved, and the intervention is stopped.

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