

Management of Diarrhea in Toddler with Moderate Dehydration Gastroenteritis

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Article

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Abstract

Diarrhea is a disease characterized by changes in the shape and consistency of softened stools to melt and an increase in the frequency of defecation more than 3 times a day. This study aims to describe the management of diarrhea in toddlers with gastroenteritis with moderate dehydration in Banjaran-Bangsri Village. This type of research used a descriptive method with case study nursing care approach in the form of assessment, data analysis, formulating nursing diagnoses, planning, implementation, and evaluation in handling diarrhea. Diarrhea management was carried out for 3 days with data collection techniques using interviews, physical examinations and observations. Then a nursing plan is carried out, namely diarrhea management and fluid monitoring. The final is 1x bowel movement with intestinal peristalsis 12x/minute. Based on the nursing actions taken, it can be concluded that diarrhea in children can be resolved by improving bowel elimination. It is hoped that health agencies can provide leaflets and posters to provide health education to visitors about diarrhea in children.

Abstract

Penyakit diare merupakan penyakit yang ditandai dengan perubahan wujud serta konsistensi tinja melembek hingga mencair serta bertambahnya frekuensi buang air besar lebih dari 3 kali dalam satu hari. Penulisan ini bertujuan untuk mendeskripsikan tentang pengelolaan diare pada anak toddler dengan gastroenteritis dengan dehidrasi sedang di Desa Banjaran-Bangsri. Jenis penelitian ini menggunakan metode deskriptif dengan pendekatan studi kasus (asuhan keperawatan) berupa pengkajian, analisis data, merumuskan diagnosa keperawatan, perencanaan, pelaksanaan, dan evaluasi dalam penanganan diare. Pengelolaan diare dilakukan selama 3 hari dengan teknik pengumpulan data menggunakan wawancara, pemeriksaan fisik dan observasi. Kemudian dilakukan rencana keperawatan yaitu manajemen diare dan pemantauan cairan. Didapatkan hasil akhir anak BAB 1x dengan peristaltik usus 12x / menit. Berdasarkan tindakan keperawatan yang dilakukan, maka dapat disimpulkan diare pada anak dapat teratasi dengan eliminasi fekal membaik. Diharapkan instansi kesehatan dapat menyediakan leaflet

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dan poster untuk memberikan pendidikan kesehatan kepada pengunjung mengenai diare pada anak.

Introduction

Diarrhea has become a public health problem in developing countries such as Indonesia because the number of individuals who experience diarrhea and the death rate is very large (Setiyono, 2019). In the world, cases of diarrhea reached 2 billion and children under 5 years of age died from diarrhea reaching 1.9 million children (Farthing et al., 2013). More than half of infant deaths caused by diarrhea occur in developing countries such as India, Nigeria, Afghanistan, Pakistan, and Ethiopia (Unicef, 2012).

According to the World Health Organization (WHO) less than 1.7 billion per year diarrhea health problems are the cause of death for children, diarrhea kills around 760,000 children every year and 10,000 Indonesian children die from diarrhea every year. Diarrhea is one of the extraordinary events (KLB) in Indonesia that causes death. Based on data from Extraordinary Events in Central Java Province in 2017-2019, diarrhea is number 4 out of 12 existing diseases with a total of 47 cases and 1 person died (Central Java Health Office, 2019).

According to data from the Central Java Provincial Health Office in 2019, one of the most common causes of infant mortality was diarrhea with the remaining (5.2%) due to low birth weight, asphyxia, congenital abnormalities, pneumonia and other diseases such as malaria. 39% of children under five died in Central Java in 2019 due to diarrhea. The number of diarrhea sufferers in children under five who are served in health facilities is 179,172 or 46.3% of the estimated diarrhea in health facilities (Central Java Health Office, 2019).

Diarrhea is a disease characterized by changes in the shape and consistency of

softened stools to melt and an increase in the frequency of defecation more than 3 times a day or 24 hours (Lidiawati, 2016). Neonates are said to have diarrhea if the frequency of defecation is more than four times, while in infants aged more than 1 month and children, if the frequency is more than three times a day (Wijayanti, 2017).

Diarrhea also causes fever, stomach pain, decreased appetite, fatigue, decreased body weight and causes a sudden loss of fluids and electrolytes, resulting in disturbances or complications, namely loss of body fluids, hypovolemic shock, organ damage and even coma. Luthfiana, 2016). Diarrhea is divided into two types, namely acute diarrhea and chronic diarrhea. Acute diarrhea is diarrhea that lasts less than 14 days, while chronic diarrhea is diarrhea that lasts more than 15 days (Depkes RI, 2011).

Diarrhea causes a rapid loss of sodium and water which is very important for the body. If salt and water are not replaced immediately, the body will become dehydrated. Loss of 10% of body fluids can cause death. Children are very susceptible to loss of body fluids because of the large composition of body fluids, immature kidneys and unable to meet their needs freely, therefore proper early treatment of diarrhea is needed to reduce mortality in children (Sudarmoko, 2011).

Handling and management of diarrhea is needed to reduce the number of cases in toddlers by giving combination drugs in the form of ORS, zinc, and antibiotics if necessary. ORS aims to replace electrolytes wasted during diarrhea. Giving zinc aims to replace the body's natural zinc that is lost and accelerate the treatment of diarrhea. Antibiotics are only given to toddlers with diarrhea accompanied by blood (Depkes RI, 2011). Diarrhea prevention and treatment can be easily handled at home. The role



of the family is very significant for early control in the prevention of diarrhea, if the behavior of handling diarrhea at the family level is lacking, it will affect the course of the disease from mild to severe (Pramesti et al., 2017).

Efforts to improve clean and healthy living behavior (PHBS) are by washing hands with soap. Performing washing hand with soap is an easy effort to prevent disease. Washing hands with antiseptic soap properly needs to be instilled in every child from an early age (Haryani et al., 2021).

Method

The method used is descriptive through an approach case study to the management of nursing care which includes assessment, data analysis, formulating nursing diagnoses, planning, implementation, and evaluation. This management is carried out for patients with diarrhea with moderately dehydrated gastroenteritis in Banjaran-bangsri Village on February 1 to February 3, 2021.

The data collection used is using an assessment format, the licensing process through correspondence and data collection using interviews, observation and physical examinations.

Results and Discussion

This assessment was conducted on Monday, February 1, 2021, at 09.00 WIB in Banjaran-Bangsri Village using the allowanamnesis method. Data was collected by observation, interviews with the patient's family who knew the patient's condition and documentation. This assessment was carried out within three days, February 1 – February 3, 2021.

Data analysis was carried out by grouping subjective and objective data. The main data obtained were subjective data, namely the patient's mother said her child had defecated 5 times from 08.00 - 16.00 WIB with a liquid consistency, no

blood but accompanied by vomiting and the patient's mother said she never washed her hands when taking her child's food. The objective data obtained were that the patient looked weak, intestinal peristalsis 18X/minute, dry lip mucosa, decreased skin turgor, CRT <3 seconds, fussy patient, fluid balance -171 mL/day, received primadex syrup drug therapy: 2.5 cc (1/2 tsp / 12 hours / orally), Guanistrep syrup: 2.5 cc (1/2 tsp / 8 hours / orally) no Laboratory results. From the analysis of subjective and objective data, the diagnosis of diarrhea related to the infection process can be established.

Interventions are arranged based on the priority of the problem. The purpose of nursing action is 3 x 24 hours the problem of diarrhea can be resolved with the criteria for the results of the SLKI (03019) Gastrointestinal function, namely the frequency of bowel movements from bad enough to getting better, stool consistency from bad enough to getting better, intestinal peristalsis from being to getting better, the amount of feces from worsening to improving. Interventions were carried out according to SIKI (03101) diarrhea management and SIKI (03121) fluid monitoring.

The first intervention was to monitor and record the color of the diarrhea to determine whether the diarrhea was bloody or not, the volume to find out how much diarrhea was per 1 defecation, to ask the frequency to find out how many times the child had diarrhea, and to ask the consistency of the stool whether the diarrhea was liquid, soft, or hard. (Nur Arif & Kusuma, 2015).

The second nursing plan is to provide oral fluid intake. The oral fluids are in the form of drinks, drugs, food, in order to restore fluids that have been expelled through the feces or through the patient's sweat and urine.

Furthermore, recommending small but frequent meals gradually, according to the author, this will help reduce excessive diarrhea and maintain the intake of food



needed by the body so that the patient does not feel weak. The fourth nursing plan is to recommend avoiding gas-forming, spicy and lactose-containing foods. Intestinal hyperperistalsis can be caused by chemicals, food, psychological disorders (fear, nervousness), nervous disorders, cold, allergies (Sodikin, 2011).

The fifth nursing plan is collaboration in drug administration. Teach the patient's family or parents how to use anti-diarrheal drugs properly. It is intended that parents or patients' families know how to prevent and overcome dehydration, prevent nutritional deficiencies by giving food during and after diarrhea, repeating the duration of diarrhea repeatedly (Suharyono, 2012).

The next nursing plan is fluid monitoring by weighing the patient's weight. The dehydration factor in diarrhea is usually determined by its etiology. This etiology greatly affects the frequency and consistency of diarrhea. Frequency can determine the degree of dehydration, one of which is visible weight loss (Soeseno et al., 2019).

The next nursing plan is to check the elasticity or turgor of the skin. In diarrhea patients with dehydration will experience decreased skin turgor. To find out the elasticity of the skin, it can be done by checking the skin turgor by pinching the abdominal area with both fingers, not with nails. If skin turgor returns > 3 seconds, it indicates dehydration.

The next nursing plan is to monitor fluid intake and output. Record the patient's fluid intake and output, in order to evaluate the effectiveness of the plan (Sodikin, 2011). Used to determine the patient's fluid status (Axton, 2014).

The last nursing plan is to explain the purpose and procedure of monitoring, the purpose and procedure of this monitoring is to find out the patient's condition. If the patient's condition improves, immediately inform the patient's family so that the family does not feel anxious.

The first implementation is to ask the frequency, consistency, color, volume of diarrhea. The patient's mother said that her child defecated 5 times from 08.00 - 16.00 WIB with a liquid consistency without blood but accompanied by vomiting. It is necessary to examine the color to determine whether the diarrhea is mixed with blood or not, and to know the consistency of whether the diarrhea is soft or liquid, and to know the frequency to determine how many times the patient has defecated, and to ask how many ml the volume of feces comes out each time (Nurarif and Kusuma, 2015).

The second implementation is giving oral fluids (water, juice, tea and ORS). The patient's mother said that she gave her child to drink water, guava juice and ORS that was given by the doctor. ORS which according to WHO has a mixed composition of Sodium Chloride, Potassium Chloride, Glucose and Sodium Bicarbonate or Sodium Citrate (Nursalam, 2016). Hygiene and sanitation behavior is suspected to be a factor in the incidence of diarrhea, as well as geographical conditions, which are mostly in the form of laziness to wash hands, which facilitates the proliferation of disease vectors. But medical therapy also plays a very important role. Because if you don't comply with the health environment, it will be dangerous for the health of the sufferer. One of them is adherence to medication use for diarrhea patients. Giving ORS is effective for reducing diarrhea so there is a need for socialization to increase knowledge of making diarrhea medicine (Pujianti, 2018).

The third implementation is to encourage feeding small and frequent portions gradually. It is expected that the patient's nutritional intake is met. The patient's mother said that she would always persuade her child to eat by giving warm food and food that her child liked. The next implementation is to avoid gas-forming, spicy and lactose-containing



foods. This is supported by (Fadillah, 2014) that one of the factors of diarrhea in children is malabsorption of carbohydrates: disaccharides (intolerance to lactose, maltose, and sucrose, monosaccharides (intolerance to glucose, fructose, and galactose) in infants and children, the most important and the most common is lactose intolerance.

The next implementation is collaboration in drug administration. In children with S, received Primadex syrup drug therapy (2.5 cc (1/2 tsp) / 12 hours / orally). Then received drug therapy Guanistrep syrup (2.5 cc (1/2 tsp) / 8 hours / orally). 5 cc (1/2 tsp) / 8 hours / orally) which serves to reduce fever with the rule of drinking 3 times a day with 1/2 tsp.

The next implementation is to weigh the patient's weight, in diarrhea with moderate dehydration the patient will experience a weight loss of 6%, the patient's mother said the patient's weight before being sick was 12.8 kg when he was sick to 12 kg. The degree of dehydration based on weight loss is divided into three namely mild, moderate and severe dehydration. 2-5% mild dehydration, 5-8% moderate dehydration and 8-10% severe dehydration (Sudaryanto, 2015).

The next implementation is to check the elasticity or turgor of the skin. To know the elasticity of the skin, it can be done by checking the skin turgor by pinching the abdominal area with two fingers, not with nails. The patient's skin turgor returns < 3 seconds. The skin returns to normal quickly without leaving any marks. If the skin turgor returns > 3 seconds, it indicates dehydration (Hidayat, 2021).

The next implementation is recording intake and output, measuring fluid intake and output. It is an action taken to determine the amount of fluid entering and leaving the body with the aim of determining the status of body fluid balance and the client's level of

dehydration. According to fluid balance data that has recorded the patient's fluid balance is -171 mL/day. Intravenous fluids include food, drink, and intravenous fluids. Then for the fluid that comes out includes defecation, vomit, and IWL (Damayanti, Pitriani and Yulrina, 2015).

The next implementation is to explain the objectives and monitoring procedures. The purpose and procedure of this monitoring is to know the condition of the patient. If the patient's condition improves, immediately inform the family so that the patient's family does not worry.

After managing for 3 days, the results showed that the diarrhea nursing problem was resolved with the results of the SLKI (03019) Gastrointestinal function, namely the frequency of bowel movements from bad enough to getting better, stool consistency from bad enough to getting better, intestinal peristalsis from being to getting better, the amount of feces from worsening to improving. This condition is seen in Child S experiencing a decrease in history of diarrhea, on day 3 the patient's mother said her child had diarrhea 1x with mushy consistency, T: 36.3°C, intestinal peristalsis 12x/minute. The signs and symptoms of the patient are no longer liquid bowel movements, the patient's stomach is no longer bloated, increase in appetite, the patient's family is very cooperative.

The conclusion of this case study using five steps or stages of the nursing process consisting of assessment, formulation of nursing diagnoses, determining nursing action plans, implementation and evaluation.

Conclusion and Suggestions

The assessment was carried out on Monday, February 1, 2021 at the patient's house, precisely in Banjaran Village, using the allowanamnesis method. In the study, the main complaint data was obtained, namely the patient's mother



said her child had 5 bowel movements with a liquid consistency, no blood but accompanied by vomiting.

The main nursing diagnosis is diarrhea related to the infection process. Interventions carried out to overcome diarrhea nursing problems used diarrhea management: monitor stool color, volume, frequency, and consistency, give oral fluid intake, recommend small and frequent meals gradually, recommend avoiding gas-forming, spicy and lactose-containing foods, collaborative administration drug. Fluid monitoring: weighing, checking skin elasticity or turgor, recording fluid intake and output, explaining the purpose and procedure of monitoring.

The implementation carried out by nurses is diarrhea management: monitoring stool color, volume, frequency, and consistency, giving oral fluid intake, giving small and frequent portions of food gradually, recommending avoiding gas-forming, spicy and lactose-containing foods, collaboration in drug administration. Fluid monitoring: weighing, checking skin elasticity or turgor, recording fluid intake and output, explaining the purpose and procedure of monitoring.

The evaluation was subjective data from the patient's mother who said her child had a soft bowel movement, while the objective data were the patient looked cheerful, pulse: 75x/minute, T: 36.3°C, RR: 26x/minute, Intestinal peristalsis 12x/minute, Lip mucosa is slightly moist, Patient is not pale. From the data above it can be concluded that diarrhea in children is resolved.

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