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## NURSING CARE FOR PEDIATRIC GASTROENTERITIS PATIENTS WITH NURSING PROBLEMS OF HYPOVOLEMIA USING HONEY IN THE SRIKANDI ROOM AT THE JOMBANG GENERAL HOSPITAL

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### ABSTRACT

**Background** : Gastroenteritis is also a disease characterized by changes in the shape of the stool with excessive bowel movements (more than 3 times in one day) which causes dehydration. The purpose of this study was to determine the effect of honey therapy on decreasing bowel movements in children aged 1-4 years with diarrhea.

**Method** : This research was conducted with a case study research design. Research data obtained from the results of WOD (interviews, observations, and documents) 1. Interviews were conducted from an assessment of the families of children with gastroenteritis with hypovolemia nursing problems which contained client identity, main complaints during the assessment, history of previous illnesses originating from patients, families, and other nurses. 2. Observation is carried out by means of a physical examination of the patient including a physical examination of the head to the neck, physical examination of the chest to the lower extremities. 3. Documentation studies data were obtained from documentation studies, namely records of medical record data, diagnostic examinations and other relevant data.

**Result** : Inflammation that occurs in the stomach, small intestine, large intestine caused by food infections containing bacteria or viruses, causing symptoms of diarrhea with more frequency with a liquid consistency, while giving ORS with honey can be used as a treatment for diarrhea. Honey is an anti-bacterial and prebiotic that can treat diarrhea which can minimize pathogens and reduce the duration of diarrhea. Honey is also able to inhibit 60 species of bacteria, fungi and viruses that cause diarrhea because honey has many ingredients in it, including carbohydrates, proteins, minerals, complex B vitamins. and vitamin C.

**Conclusion** : Some of the benefits of vitamin C in honey are that it has anti-inflammatory, anti-bacterial, anti-viral and anti-oxidant properties which are useful for dealing with bacteria and viruses that cause diarrhea, giving honey to children with diarrhea.

**Keywords** : Pediatric Gastroenteritis, Hypovolemia, Honey

## 1. INTRODUCTION

Gastroenteritis is an infection that occurs in the intestines or stomach caused by a virus and can cause nausea, vomiting, diarrhea. Diarrhea if not treated can result in dehydration (Rahman et al, 2016). Gastroenteritis is also a disease characterized by a change in the form of feces with the intensity of excessive defecation (more than 3 times in one day). In developing countries diarrheal disease in infants is the second cause of illness and death (Prawati, 2019).

Based on data obtained from the World Health Organization (WHO), 2018 gastroenteritis affects 2.2 million people worldwide. According to Riskesdes, 2018 The prevalence of diarrhea in Indonesia is based on diagnoses by health workers of 6.8% and based on diagnoses by health workers or symptoms that have been experienced by 8%, the age group with the highest prevalence of diarrhea, namely ages 1-4 years, is 16.7%. Gastroenteritis sufferers in East Java starting January 2017 were 82.29%, in 2018 there were 57,150 (East Java Health Profile, 2020). 23% target. Reports from the Jombang district health office found that the 10 most common diseases suffered by the people of Jombang in 2017 were diarrheal diseases (Jombang Health Office, 2018)..

The cause of diarrhea clinically in children with the highest number (60-70%) is due to rotavirus infection while around 12-20% is bacteria and less than 10% is parasite. Lactose intolerance, studies in other countries have even found a higher incidence of lactose intolerance, which is around 67% in diarrhea due to rotavirus and 49% in diarrheanon Rotavirus (Sumadi, 2020). In infectious diseases caused by bacteria, in addition, can be caused by non-infectious: immunological, psychological, and lifestyle (food poisoning). In children with gastroenteritis, this has the effect of watery diarrhea which causes dehydration and if food intake is reduced, it also results in malnutrition, even death caused by dehydration. Gastroenteritis often attacks

toddlers and children because their immune system is still weak, so they can be exposed to bacteria that cause diarrhea and continuous vomiting will increase dehydration (lack of fluids) (Huda et al, 2017). Dehydration that occurs in children will quickly become severe and can cause death if it is not handled with proper and fast help. Deaths caused by gastroenteritis cause loss of fluids and nutrients needed by children for the body so that gastroenteritis results in severe dehydration, which can cause death. (Simadibrata and Adiwinata, 2017).

Oral rehydration salts (ORS) are low osmolarity, zinc, and increasing fluid intake is also included in the management of children with diarrhea (Carvajal et al, 2016). Dehydration can be prevented by consuming ORS so that it can reduce mortality (Kianmehr, Saber, Moshari, Ahmadi, & Basirimoghada, 2016). Giving ORS with honey can be used as a treatment for diarrhea. Honey acts as an anti-bacterial and prebiotic which can treat diarrhea (Tehrani, Khorasgani, & Roayaei, 2018). In addition, honey is also able to treat constipation and diarrhea in children, minimize pathogens and reduce the duration of diarrhea (Pasupuleti et al, 2017). Honey is able to inhibit 60 species of bacteria, fungi and viruses that cause diarrhea (Oskouei & Samini, 2018). Honey has many ingredients in it, including carbohydrates, protein, minerals, vitamin B complex and vitamin C. Some of the benefits of vitamin C in honey are that it has anti-inflammatory, anti-bacterial, anti-viral and anti-oxidant properties which are useful for dealing with bacteria and viruses that cause diarrhea, giving honey to children with diarrhea can reduce the frequency of children's diarrhea (Elnady et al, 2017). According to Andayani's research, 2018 the frequency of giving honey is 5 ml 3 times a day, while according to Rokhaidah's research, 2018 The frequency of honey is also given 3x 24 hours as much as 5 ml. This can help reduce stool consistency and overcome dehydration.

## 2. METHODS

The research design is a case study. The main subject of this research is to explore the problem of nursing care in children with gastroenteritis with hypovolemia nursing problems in the Srikandi room at Jombang Hospital. To avoid mistakes in understanding the title of the research include: 1. Nursing care is a process carried out by the author which consists of assessment, nursing diagnosis, preparation of nursing interventions, nursing implementation, and nursing evaluation. 2. Clients are individuals who receive medical care, the clients in this case study are 2 clients with a medical diagnosis of gastroenteritis and hypovolemia nursing problems. 3. Gastroenteritis is inflammation that occurs in the stomach, small intestine, large intestine caused by infection with food containing bacteria or viruses which gives symptoms of diarrhea with more frequency with a watery consistency and accompanied by nausea and vomiting. 4. Hypovolemia is a decrease in fluid volume from intravascular, interstitial or intracellular.

Participants, namely two different clients with the following criteria: 1. Inpatients in the Srikandi room at the Jombang General Hospital, women with the same nursing problems and medical diagnoses, namely children who have gastroenteritis with hypovolemia nursing problems. 2. Families of children who are willing to be respondents by signing an informed consent. 3.4 Research Location and Time 3.4.1 Research Location Heroine Room of Jombang Hospital. 3.4.2 Time of Research The research was carried out for 3 consecutive days. Patient 1 was carried out on 25 July 2022 - 27 July 2022 and patient 2 was carried out on 28 July 2022 - 30 July 2022. Data collection was to obtain a recommendation from the campus institution by submitting a prior application for permission to Bakordiknas regarding the research location, and having been declared ethically feasible by Bahrul Ulum Academy of ethics team. After waiting for a copy letter to the research location in the Srikandi room

at the Jombang Hospital to obtain the required data. After the researcher got the patient who met the participant criteria, the researcher explained the aims and objectives of the study, collected data and asked for approval to be a response as evidenced by the patient signing an informed consent. After obtaining the response for the case study, the next step is to carry out Nursing Care which includes assessment, diagnosis, planning, implementation, and evaluation for approximately 3 days in Nursing Care of Gastroenteritis clients with hypovolemia problems in the Srikandi room of Jombang Hospital. The data collection method used as following: 1. Interview Interviews were conducted from an assessment of the family of children with gastroenteritis with hypovolemia nursing problems which contained the client's identity, main complaints during the assessment, history of previous illnesses originating from the patient, family, and other nurses. 2. Observation and Physical Examination Observation of patients aims to obtain data needed by researchers to support the writing of the final report. Observation was carried out by means of a physical examination of the patient including a physical examination of the head to the neck, physical examination of the chest to the lower extremities. 3. Documentation study Data was obtained from a documentation study, namely records of medical record data, diagnostic examinations and other relevant data.

The data validity test is carried out to test the quality of the data/information obtained so as to produce highly validated data. The time for observing the action was carried out in July 2022, so that the data obtained by the researcher could be complete. The data validity test was carried out in the following way: 1. The time of observation / nursing action on clients who experienced gastroenteritis with hypovolemia in the Srikandi room at Jombang Hospital was only for three days. 2. Additional information sources using triangulation from three main data sources of patients, nurses and clients' families who

have experienced gastroenteritis with hypovolemia in the Srikandi room of Jombang Hospital.

The process of systematically searching for and compiling data obtained from interviews, field notes and documentation by organizing data into categories, describing into units, synthesizing, compiling into patterns (Sugiyono, 2018) The order in the analysis is as follows: 1. Data collection Data collection is searching, recording, and collecting everything objectively and as is in accordance with the results of observations and interviews in the field, namely data recording and various forms of data in the field (Sugiyono, 2018).

Research ethics is important in conducting research considering that nursing research is directly related to humans. The following must be applied in research ethics: 1. Informed consent (client consent) The form of agreement between the researcher and the research respondent by providing an informed consent sheet, given before the research is carried out for the purpose of informed consent so that the respondent understands the intent and purpose of the research, and knows the impact. 2. Anonymity (disclosure of respondent's identity) To keep the identity of the participant secret so as not to disturb the privacy of the participant the researcher must keep the identity of the participant secret. The results of the interview were given the participant's initial name then stored in a special file with the same participant code. All data is used for the purposes of the data analysis process until a report from the research is compiled. 3. Confidentiality (data confidentiality) Information that has been obtained from respondents must be properly guarded and stored. Documents from the interview results in the form of biodata, interview recording results, and the respondent's consent form must be guaranteed confidentiality until the research is collected.

### 3. RESULTS

Jombang Hospital is a regional hospital located at Jalan Wahid Hasyim No. 52 Jombang, East Java, Indonesia. The facilities in Jombang Hospital include outpatient installations, emergency departments, ICU center installations, radiology installations, central surgery installations, hemodialysis installations, nutrition installations, CSSD installations, medical rehabilitation installations, forensics installations, environmental sanitation agencies, medical record installations. , an inpatient installation that has 486 beds and is equipped with an anatomical pathology laboratory and clinic. The research I did was in the Srikandi Room. In this room there are 4 classes, namely class 1 with a capacity of 7 people. Class 2 with a capacity of 10 people. Class 3 with a capacity of 14 people. Special class with a capacity of 5 people. The intervention that I provide here is the administration of 10 ml of honey therapy 3 times a day.

The results of the research conducted on An "A" and An "K" for 3 days were as planned. For gastroenteritis problems related to active fluid loss, nursing actions have been carried out, namely giving 10 cc of pure honey with 50 cc of warm mineral water and mixing it and then giving it to the child. Give it to the child 30 minutes before going to bed to drink. On the second day of implementation, there was a change in client 1, namely the frequency of diarrhea was reduced.

### 4. DISCUSSION

The discussion contains comparisons between literature reviews and case reviews, presented to answer specific objectives. Any discrepancies found are described in this discussion. What is presented is data on nursing diagnoses in the form of tables. The author in this chapter will discuss a case study conducted on July 25-27 2022 in An. "A" and July 28-30, 2022, namely An. "K" in the Srikandi Room of the Jombang Hospital, includes assessment, nursing diagnoses,

nursing interventions, implementation, and evaluation on clients.

Assessment Nursing assessment is a systematic process of collecting verification, communication and data about patients. This assessment was obtained from two types, namely subjective data and from perceptions of their health problems and objective data, namely observations / measurements made by data collectors (Potter, 2017). 1. Biodata At the time the author conducted the study, the identity of client 1 was 2 years old and client 2 was 2 years old. According to Riskesdes, (2017) the age group with the highest prevalence of diarrhea is 1-4 years of age, 16.7%

The diagnoses that appear in clients 1 and 2 who have gastroenteritis are as follows: Client 1 An "A" and client 2 An "K", namely hypovolemia associated with active fluid loss. such as fluid imbalances caused by (eg dehydration and water intoxication, diarrhea, vomiting, kidney dysfunction which are at risk of decreasing, increasing or accelerating intravascular, interstitial or intracellular fluid shifts), imbalances that occur because clients 1 and 2 have more diarrhea than 3 days or not as usual According to (Prawati, 2019).

The interventions given in the nursing case of An. A and An. K who has gastroenteritis with hypovolemic nursing problems with the goals and outcome criteria carried out 3x 24 hours is expected to overcome fluid deficiency with increased fluid intake, increased urine output, and increased mucous membrane moisture, the interventions are 1. Monitor hydration status, 2. Monitor daily weight, 3. Monitor lab test results (eg Hematocrit, urine specific gravity, Na, K, Cl, 4. Monitor hemodynamic status (eg MAP, CVP), 5. Record intake-output and calculate fluid balance for 24 hours, 6. Give fluid intake as needed, 7. Give intravenous fluids, 8. Give ORS fluids if necessary, 9. Suggest giving oral fluids 200 ml per day and giving honey if necessary, 10. Collaborate giving diuretics if necessary According to (Tehrani, Khorasgani, & Roayaei, 2018) honey is able to treat

constipation and diarrhea problems in children, minimize pathogens and reduce the duration of diarrhea and also inhibit 60 species of bacteria, fungi and viruses that cause diarrhea and have It contains a lot of ingredients, including carbohydrates, protein, minerals, B-complex vitamins and vitamin C. In addition, honey is also able to treat constipation and diarrhea in children, minimize pathogens and reduce the duration of diarrhea (Pasupuleti et al, 2017).

The results of the research conducted on An "A" and An "K" for 3 days were in accordance with the plans that had been planned. According to (PPNI SIKI Pokja Team, 2018) For gastroenteritis problems related to active fluid loss, nursing actions have been carried out, namely: 1. Monitor hydration status, 2. Monitor daily body weight, 3. Record intake-output and calculate fluid balance for 24 hours including the following therapy: 1) Preparation of 10 cc of pure honey; 2) 50 cc of warm mineral water; 3) Glass; 4) Spoon with the following preparations: 1. Washing hands, 2. Positioning the patient comfortably, 3. Prepare a starfruit glass filled with 50 cc of warm mineral water, 4. Mix it with 10 cc of pure honey, stir and give it to the child, 5. Give fluids to children 30 minutes before bedtime to drink. On the second day of implementation, there was a change in client 1, namely the frequency of diarrhea increased, this was because the formula milk given did not match what was recommended.

Evaluation of client 1 after nursing actions for 3 days hypovolemia problems related to active fluid loss are partially resolved with subjective data: general condition is quite improved, mucous membranes of lips are moist, sunken eyes are reduced, BAK is normal. after nursing actions for 3 days the problem of diarrhea associated with gastrointestinal inflammation and gastrointestinal irritation is resolved, the client's mother says there is no more diarrhea and the redness of the anus is reduced, and client 2 after nursing actions for 3 days hypovolemia problems associated

with active fluid loss are partially resolved with subjective data: the general condition is quite improved, the mucous membranes of the lips are moist, sunken eyes are reduced, BAK is normal. after nursing actions for 3 days the problem of diarrhea associated with gastrointestinal inflammation and gastrointestinal irritation was resolved, the client's mother said that she had no more diarrhea and reduced redness of the anus.

Honey is an anti-bacterial and prebiotic that can treat diarrhea which can minimize pathogens and reduce the duration of diarrhea. Honey is also able to inhibit 60 species of bacteria, fungi and viruses that cause diarrhea because honey has many ingredients in it, including carbohydrates, proteins, minerals, complex B vitamins. and vitamin C. Some of the benefits of vitamin C in honey are that it has anti-inflammatory, anti-bacterial, anti-viral and anti-oxidant properties which are useful for dealing with bacteria and viruses that cause diarrhea.

DS: The client's mother said that her diarrhea had decreased

DO : sunken eyes are reduced, weakness is reduced.

## 5. CONCLUSION

The results of the study showed that there was a difference in An A and An K data, namely in patient 1 diarrhea caused by formula milk replaced by the mother because at that time the brand of formula milk to be purchased ran out and in client 2 diarrhea was caused by a client who was used to breastfeeding suddenly suddenly replaced with formula milk because the client's mother considered the client big enough to be separated from her breast milk therefore the client's mother replaced it with formula milk, the diagnosis that emerged was hypovolemia associated with active fluid loss with planned interventions for both clients namely treatment using honey therapy, to facilitate healing, implementation of nursing carried out on both participants: 1) Preparation of 10 cc of pure honey; 2) 50 cc of warm mineral water;

3) Glass; 4) Spoon with self preparation: 1. Washing hands, 2. Positioning the patient comfortably, 3. Prepare a starfruit glass filled with 50 cc of warm mineral water, 4. Mix it with 10 cc of honey pure, stir and give to the child, 5. with the results of the evaluation of hypovolemia partially resolved.

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