

FACTORS ASSOCIATED WITH DIARRHEA DISEASE IN CHILDREN 1-5 YEAR IN PUSKESMAS WORK AREA PAMATANG RAYA DISTRICT SIMALUNGUN 2020

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Abstract

Diarrheal disease is a condition where the frequency of defecation is more than 4 (four) times in infants and more than 3 (three) times in children, the consistency in children is watery, can be green in color or can also be mixed with mucus and blood that occurs in children under five. occurs as a result of a person's lack of information or knowledge. This research was conducted in the Working Area of the Pamatang Raya Health Center, Simalungun Regency from August to September 2020, the sample size was 71 people using an analytical quantitative method through a cross-sectional approach. Data collection using secondary data was analyzed using the chi-square bivariate test. The results showed that in the good knowledge category there were 15 people (21.1%), enough knowledge 26 people (36.6), less knowledge 30 people (42.3), negative attitudes were 47 people (66.2%), positive attitudes were 24 (33.4), good mother behavior were 26 people (36.6), poor behavior were 30 people (42.3%). The conclusion from the study is that there is a relationship between knowledge, attitudes, and behavior of mothers towards diarrheal disease in toddlers at the Pamatang Raya Health Center.

Keywords: Knowledge, Attitude, Mother's Behavior Against Diarrhea in Toddlers

INTRODUCTION

According to data from the World Health Organization (WHO) in 2013, diarrhea is the second disease that causes death in children under five, and diarrhea kills 760,000 children every year. Most people with diarrhea who die due to dehydration or loss of fluids in large quantities.

Diarrheal disease is a health problem in developing countries, especially in Indonesia, both in rural and urban areas. This disease is endemic and often appears as an outbreak of disease.

Data from the Southeast Sulawesi Provincial Health Office shows that in 2012 the prevalence of diarrheal disease in Southeast Sulawesi was 4,182 per 100,000 population, and in 2014 it was 1,753 per 100,000 population. Diarrheal disease is still a public health problem in Southeast Sulawesi, which causes morbidity and death for toddlers

In the world there are 1.7 billion cases of diarrhea that occur each year. , the number of cases of diarrhea sufferers was 49,898 cases. The majority are dominated by

ages under 1 year around 700 toddlers, aged 1-4 years 1175 toddlers and ages more than 5 years 1728 toddlers (Dinkes, 2010).

The incidence of diarrhea in toddlers in Indonesia is 6.7%. Based on population characteristics, the age group under five is the group that suffers the most from diarrhea with a prevalence of diarrhea of 9.2% and 12.2% in the age group 1-4 years (Riskesdas, 2013).

In the last ten years the number of diarrheal diseases has always fluctuated. 2012 (24,525 cases); 2013 (18,982 cases), and in 2014 20,470 cases of diarrheal disease were found, an increase of 7.84%. This number of cases is slightly above the estimated number of cases, namely 18,062 cases. Thus the diarrhea morbidity rate in 2014 was 24.25/1000 population, an increase compared to 2013 which was 22.78, but still lower than the previous 8 years which was 29.41 (2012); 38.06 (2011); 54.73 (2010); 49.53 (2009); 47.45 (2008); 41.33 (2007) and 36.38 (2006). Of the number of cases found, 113.33% have been handled, the highest in the last 4 years was 106.45% (2013); 100% (2012); and 89.98% (2011). This figure exceeds the 2015 MSS indicator (100%). The trend of diarrheal disease in the last 8 years and the spread of health centers in 2014 (Profile Simalungun 2014).

North Sumatra Province consists of 33 Regencies and Cities, One of which is Simalungun Regency. Simalungun Regency has 33 Districts and 46 Community Health Centers. Pamatang Raya Health Center is one of the Health Centers which has a Village/Kelurahan working area of 20 (twenty) villages located on Jalan Raya. According to a survey from researchers, there are 5 biggest diseases in the Pamatang Raya Health Center including: ARI (2734), High Blood Pressure (969), Rheumatism (9805), DM (510) and Diarrheal Disease (180). Patients with diarrhea at the Pamatang Raya Health Center in toddlers in 2018 totaled 180 toddlers. 15 toddlers who died and 165 toddlers who lived in 2018. Some behaviors cause enteric germs and can increase the risk of diarrhea,

LITERATURE REVIEWS

Diarrheal diseases

Diarrhea is a disease that causes sufferers to have frequent bowel movements, with watery stools. In general, diarrhea occurs due to food and drink that are exposed to viruses, bacteria, or parasites. Diarrhea is a health problem in Indonesia. Diarrhea is a condition where the frequency of defecation is more than 4 (four) times in infants and more than 3 (three) times in children, the consistency of watery stools, can be green or can also be mixed with mucus and blood (Maryunani, 2013).

Pathophysiology

According to Suriadi (2010), as a result of both acute and chronic diarrhea will occur:

1. Increased motility and rapid emptying of the intestine are the result of impaired absorption and excretion of excess fluid and electrolytes.
2. Fluid, sodium, potassium and bicarbonate move from the extracellular space into the feces, resulting in diarrheal dehydration that occurs is a process of:

3. *Transport*

Active Transport due to bacterial toxin stimulation of electrolytes into the small intestine. Cells in intestinal mucosa experience irritation and increased secretion of fluids and electrolytes. Microorganisms that enter will damage the intestinal mucosal cells thereby reducing the surface area of the intestine, changes in intestinal capacity and there is interference with the absorption of fluids and electrolytes. Inflammation will reduce the intestinal ability to absorb fluids and electrolytes and food ingredients. This occurs in malabsorption syndrome.

4. Increased intestinal motility

May result in impaired intestinal absorption

Signs and symptoms

Signs and symptoms of diarrhea include whining, restlessness, increased temperature, decreased appetite, liquid stools, mucus (+), blood sometimes (sometimes there), the color of the stools turns green over time because they are mixed with bile, the anus is chafed, the stools gradually become acidic (because of the large amount of lactic acid that comes out). Finally, dehydration appears, weight loss, decreased skin turgor, sunken eyes and crown, mucous membranes and mouth as well as dry skin. If the dehydration is severe, the blood volume will decrease, thus the pulse will quickly decrease, consciousness decreases which then ends in shock (Dewi, 2010).

Diarrhea Classification

According to the guidelines from the Child Health Science Laboratory/UPF, diarrhea is grouped into:

1. Acute diarrhea, namely diarrhea that occurs suddenly and lasts a maximum of 3-5 days.
2. Prolonged diarrhea, if diarrhea lasts more than 7 days.
3. Critical diarrhea, if diarrhea lasts more than 14 days.

Meanwhile, according to the IMCI guidelines (2010) they are grouped or classified into:

1. Diarrhea with severe dehydration
2. Diarrhea with mild dehydration
3. Diarrhea without dehydration
4. Pusulent diarrhea if the diarrhea lasts 14 days or more, divided into:
5. Persistent diarrhea with dehydration
6. Persistent diarrhea without dehydration
7. Dysentery if the diarrhea is accompanied by blood.

Diarrhea complications

Dehydration due to lack of fluids and electrolytes as follows:

1. mild dehydration; if the body weight has decreased by 3%, with a volume of fluid loss of less than 30 ml/kg

2. moderate dehydration; when the body weight has decreased by 6% with a volume of fluid loss of 60 ml/kg.
3. severe dehydration; if the body weight has decreased by more than 9%, the volume of fluid lost is equal to or more than 90 ml/kg
4. Hypovolemic shock due to decreased blood volume, if the decrease in blood volume reaches 15% of body weight - 25% will cause blood pressure.
5. Hypokelema with symptoms that appear are weakness, bradycardia, changes on the EKG examination
6. Hypoglycemia
7. Secondary lactose intolerance as a result of lactose enzyme deficiency due to damage to the villi of the small intestine mucosa.
8. seizures
9. Protein energy malnutrition because in addition to diarrhea and vomiting, usually sufferers experience hunger.

Factors Associated with Diarrhea

1. Education

A low level of education can affect the formation of a person's behavior, especially in motivation and attitudes. The higher a person's level of education, the younger they are in receiving information so that the more knowledge they have. Conversely, lack of education will hinder the development of one's attitude (Notoatmodjo, 2007).

A person's education affects his perspective on himself and the environment. Therefore, they will be highly educated compared to those with low education in addressing the process and interacting. The higher one's education, the higher one's knowledge. With this knowledge, a person will better maintain the cleanliness of himself and his family so that he can avoid diseases, especially diarrheal diseases. Conversely, a lack of education will hinder the development of one's attitude towards the new values that are introduced. So that with a person's lack of knowledge about health, the risk of developing the disease will be greater. (Notoatmodjo, 2013).

2. Knowledge

Knowledge is the result of knowing humans who simply answer the question "what". Knowledge is the result of knowing, and this occurs after people sense a certain object. Sensing, smelling, tasting, and touching. Knowledge or cognitive is a very broad domain. important in shaping one's actions (over behavior).

METHODS

Method of collecting data

Primary data

Primary data is data obtained directly from respondents, namely mothers who have toddlers 1-5 years who visit the Pamatang Raya Health Center, Simalungun Regency in 2020.

Secondary Data

Secondary data is data obtained from the health agency of the Pamatang Raya Health Center.

Research design

This research method is quantitative in nature, with an observational design through a cross-sectional approach in which the independent and dependent variables are asked at the same time to respondents in the Work Area of the Pamatang Raya Health Center, Simalungun Regency, in 2020.

Data Type

The type of data in this study is the type of categorical data (qualitative) which is the result of data from classification and classification. Data or categorical variables generally contain variables with nominal and ordinal scales.

In this study, sampling was carried out by *Purposive Sampling*. Purposive sampling was based on certain considerations made by the researchers themselves, based on the characteristics and characteristics of the population, namely mothers who have toddlers who visit the Pamatang Raya Health Center. As for the considerations or criteria that the researchers themselves carried out with the inclusion and exclusion criteria.

Inclusion Criteria

1. Mothers who have toddlers who visit the Pamatang Raya health center.
2. Can read and write
3. Willing to be a respondent

Exclusion Criteria.

1. Can't read and write
2. Mother was not willing to be a respondent.

RESULTS AND DISCUSSION

Results

The main discussion contains results and discussion, written in Times New Roman 12 font. The results are not raw data, but data that has been processed/analyzed by a predetermined method. The discussion is a comparison of the results obtained with the existing concepts/theories in the literature review. The contents of the results and discussion include statements, tables, drawings, diagrams, graphs, sketches, and so on.

Discussion

A Relationship between Mother's Knowledge and Diarrhea in Toddlers in the Region Work of the Pamatang Raya Health Center.

Based on the distribution table of the relationship between mother's knowledge and diarrheal disease in toddlers 1-5 years in the Working Area of the Pamatang Raya Health Center, Simalungun Regency, in 2019 the results were obtained from 15 (21.1) respondents who had good knowledge, 26 (36.6) respondents who had sufficient knowledge, and as many as 30 (42.3) respondents who are less knowledgeable. It can be

concluded that mothers who have less knowledge have more children experiencing diarrhea compared to mothers who have sufficient knowledge and good knowledge of mothers about diarrheal diseases.

Based on the results of the Chi-square statistical test, p value = $0.02 < (0.05)$. So it can be concluded that H_a is accepted, which means there is a relationship between mother's knowledge and diarrheal disease in toddlers (1-5) years.

According to Bloom, 2009 knowledge is knowing and understanding and the application of a person's ability to re-express what he knows in the form of evidence of answers either verbally or in writing, the criteria for someone's knowledge can be known with a qualitative scale, namely, good, sufficient and lacking (Dewi, 2010).

Knowledge is dominant which is very important for the formation of one's actions. Increasing knowledge can lead to changes in the perception of one's habits, knowledge also shapes one's habits and attitudes towards one thing. Behavior that is aware of knowledge is more lasting than behavior that is not aware of knowledge (Notoatmodjo, 2007).

B. The Relationship between Mother's Attitudes towards Diarrhea in Toddlers in the Work Area

Pamatang Raya Health Center.

Based on table 5.6, the relationship between the mother's attitude towards diarrheal disease in the Working Area of the Pamatang Raya Health Center, Simalungun Regency in 2020 was obtained from 47 (66.2)% of respondents who had a negative attitude towards diarrheal disease, and 24 (33.18)% of respondents who have a positive attitude. It can be concluded that mothers who have a negative attitude are more likely to have diarrhea than mothers who have a positive attitude. Based on the results of the Chi-square statistical test, p value = $0.04 < (0.05)$. So it can be concluded that H_a is accepted, which means there is no relationship between mother's knowledge and diarrheal disease in toddlers (1-5) years.

According to Winkel (2007). Siakp is the tendency in the subject to accept or reject an object based on an assessment of the object as a valuable object that plays a very important role in the treatment of diarrhea because they are the ones who usually carry out dehydration efforts, oral, provide food, recognize dehydration and seek treatment for toddlers with diarrhea in time.

According to Notoadmodjo, 2010 attitude is a reaction or response of someone who is still closed to a stimulus to an object. Attitudes actually show a reaction to the suitability of reactions to certain stimuli in everyday life which are emotional reactions to social stimuli. This affects what actions a mother takes when faced with toddler health problems, in this case the knowledge of mothers who have toddlers can understand the prevention of diarrheal diseases in toddlers, it is hoped that the degree of health, especially in toddlers.

C. The Relationship between Mother's Behavior and Diarrhea in Toddlers in the Work Area

Pamatang Raya Health Center.

Based on table 5.7. above the relationship between mother's behavior and diarrhea in toddlers 1-5 years in the Work Area of the Pamatang Raya Health Center, Simalungun

Regency, in 2020 the results were obtained, out of 32 (45.1%) respondents who had good behavior towards mothers with diarrhea, and 39 (54, 9%) of respondents who have less behavior towards mothers who have toddlers with diarrhea. It can be concluded that more mother's behavior is less than good mother's behavior in toddlers (1-5) years.

Based on the results of statistical tests using the Chi Square test, it shows that $p\text{value}(0.03 < \alpha(=0.05))$. So it can be concluded that H_a is accepted, which means that there is a relationship between maternal behavior and diarrhea in toddlers in the working area of the Pamatang Raya Health Center.

According to Notoatmodjo (2007), changes in a person's behavior are influenced by knowledge and perception. Conceptually, knowledge is a person's perception that is produced after people do good sensing hearing, seeing, feeling and experiencing themselves about a certain object.

Good behavior can be influenced by knowledge, level of education, and socioeconomic status of each individual, thus if the mother's education level is good, it will influence the mother on good preventive behavior. This is the same as the opinion of Notoatmodjo, 2010: Changes in a person's behavior are influenced by conceptual knowledge or perception, knowledge is a person's perception that is produced after people do good sensing to hear, see, feel, and experience themselves about a certain object.

CLOSING

Conclusion

Based on the results of research that has been carried out by researchers, the following conclusions are obtained:

1. There is a relationship between mother's knowledge of diarrhea in toddlers aged 1-5 years at the Pamatang Raya Health Center, Raya District, Simalungun Regency. Based on the results of the Chi-square statistical test, $p\text{ value} = 0.02 < (0.05)$. So it can be concluded that H_a is accepted, which means there is a relationship between mother's knowledge and diarrhea in toddlers (1-5) years in the Pamatang Raya Health Center Work Area.
2. There is a relationship between the mother's attitude towards diarrhea in toddlers aged 1-5 years at the Pamatang Raya Health Center, Raya District, Simalungun Regency. Based on the results of the Chi-square statistical test, $p\text{ value} = 0.04 < (0.05)$. So it can be concluded that H_a is accepted, which means there is a relationship between mother's knowledge and diarrhea in toddlers (1-5) years in the Pamatang Raya Health Center Working Area
3. There is a relationship between maternal behavior and diarrhea in toddlers aged 1-5 years at the PAMATANG RAYA Health Center, Dolok Panribuan District, Simalungun Regency. Based on the results of the Chi-square statistical test, $p\text{ value} = 0.02 < (0.05)$. So it can be concluded that H_a is accepted, which means that there is a relationship between mother's behavior and diarrhea in toddlers (1-5) years in the Pamatang Raya Health Center Work Area.

Suggestions

1. For Efarina University Educational Institutions

It is hoped that the results of this research can become input for educational institutions and can be used as a reference for the Efarina University Educational Institutions library.

2. For the institution where the research is conducted

It is hoped that the results of the research can become input and suggestions for PAMATANG RAYA Health Center health workers to pay attention to and improve services for diarrheal diseases, especially children under five.

3. For Researchers

It is hoped that the results of this research will become the final educational report and as one of the requirements for completing education at Efarina University.

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