

The Effect of 6 Principles of Household Food Sanitation Hygiene on The Incidence of Diarrhea in Toddlers In The Working Area of The Krayan Public Health Center, Long Ikis District, Paser Regency In 2022

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ABSTRACT

In the working area of the Krayan Health Center, 6 principles of household food sanitation hygiene greatly influence the incidence of diarrhoea in toddlers. The purpose of this study was to determine the effect of 6 principles of household food sanitation hygiene on the occurrence of diarrhoea in toddlers in the working area of the Krayan Health Center, Long Ikis District, Paser Regency. The type of research used in this research is quantitative with a cross-sectional approach. The informant selection technique is total sampling. The results showed that the 6 principles of household food sanitation hygiene with the incidence of diarrhoea in the Krayan Health Center area showed that there was an influence on the incidence of diarrhoea in toddlers. It was concluded that 6 principles of food sanitation hygiene affect the incidence of diarrhoea in toddlers. It is suggested that the Krayan Community Health Center is expected to be able to provide counselling to residents about how to apply the 6 principles of food sanitation hygiene to motivate residents.

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1. INTRODUCTION

Diarrhoea is defecation with liquid or semi-liquid (semi-solid) faeces, the water content of the stool is more than usual, more than 200 grams or 200 ml/24 hours [1]. Another definition uses frequency criteria, namely watery bowel movements more than 3 times/day [2]. Diarrheal disease is a disease based on two dominant environmental factors, namely clean water facilities and faecal disposal. These two factors will interact together with human behaviour [3]. Very often diarrhoea is caused by contaminated food and drink. Children aged less than a year often experience diarrhoea with the highest incidence of diarrhoea occurring at the age of 6-11 months [4]. Children who have diarrhoea will experience dehydration which will result in wasting food substances that are still needed by the body so that their growth cannot be optimal. Several factors influence the incidence of diarrhoea in children, namely environmental factors, sociodemographic factors and behavioural factors [5].

Environmental factors, namely environmental cleanliness, including housing, disposal of human waste (faeces), clean water supply, garbage disposal and sewerage (SPAL) [6]. Diarrhea more often affects children under five because their immune systems are still weak so they will be more susceptible to bacteria that cause diarrhea. Toddler age can be grouped into three age groups for infants (0-2 years), toddler groups (2-3 years) and preschool groups (> 3-5 years) [7]. STBM (Community-Based Total Sanitation) is a government program to strengthen efforts to promote clean and healthy living, preventing the spread of environment-based diseases [8]. Improving community capacity, as well as implementing the government's commitment to increase sustainable access to drinking water and basic sanitation. STBM has 5 pillars, one of which is household food and beverage management [9]. Food sanitation hygiene is an effort made to control various factors, namely food, humans, equipment and the surrounding environment which can influence the onset of disease or health problems [10]. In implementing hygiene sanitation in food processing, there are 6 main principles of application, namely the selection of food ingredients, food storage, food processing, food storage, food transportation and food preparation/serving [11].

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Food that does not meet sanitary requirements or has been contaminated can be seen by checking the quality of the food [12]. In household food management there is a limit to the ability to appear in good and healthy condition, it is necessary to consider careful planning, proper processing and presentation, as well as storage and distribution or transportation to other places to reduce contamination [13]. Serving food can cause health problems if hygiene factors are not considered [14].

According to Health Workers, 50% of the 2018 Riskesdas in East Kalimantan Province were infected with diarrheal disease, while 8% of toddlers were infected with diarrheal disease. The city of Samarinda is part of East Kalimantan which has some cases of diarrhoea in 2016 found as many as 20,725 cases consisting of 10,808 cases in males and 9,918 cases in females. Whereas in 2017 there were 21,047 cases of diarrheal disease, consisting of 10,956 cases in males and 10,091 cases in females.

In the Long Ikis sub-district, Paser Regency, the Working Area of the Krayan Health Center in 2020, there are several villages, namely, Krayan Makmur Village, Teluk Waru, Adang Jaya. Krayan Sentosa Village has a population of 1421 people with 54 cases of diarrhoea, Bukit Seloka has a population of 1177 people with 38 cases of diarrhoea, Krayan Makmur has a population of 898 people with 12 cases of diarrhoea, Teluk Waru has a population of 892 people with 8 cases of diarrhoea, Muara Adang has a population of 1597 people with 33 cases of diarrhoea and Adang Jaya Village has a population of 484 people with 7 cases of diarrhoea. And the incidence of diarrhoea in toddlers 1-5 years for the Krayan Health Center Work Area in 2020, which includes Krayan Sentosa Village, there are 22 cases of infected toddlers, Bukit Seloka there are 13 cases of infected toddlers, Krayan Makmur there are 4 cases of infected toddlers, Teluk waru there were 2 cases, Muara Adan 13 cases and Desa Adang Jaya 2 cases. Therefore, based on the above, it is necessary to conduct research on the 6 principles of household food hygiene and the incidence of diarrhoea in toddlers in the Working Area of the Krayan Health Center in 2022.

So, to find out about this, researchers will conduct research with the title "The Effect of 6 Principles of Household Food Sanitation Hygiene on Diarrhea in Toddlers in the Working Area of the Krayan Health Center in 2022".

2. METHOD

The type of research used is quantitative with a cross-sectional approach. The use of a cross-sectional research design in this study was because the variable measurements were carried out at one time that had been determined by the researcher to see the relationship between risk factors (*independent*) with effect factors (*dependent*) [15].

3. RESULT AND DISCUSSION

The Influence Between Selection of Food Materials and Diarrhea in Toddlers

It was found that the number of respondents in the selection of food ingredients that did not meet the requirements was 24 (72.7%) respondents, while the number of respondents who in the selection of food ingredients met the requirements was 21 (91.3%). And the number of respondents who answered that they had diarrhoea was 11 (19.6%), and those who answered that they had never had diarrhoea were 45 (80.4%).

The results of statistical tests using the Fisher Exact test show that the p-value ($0.081 > \alpha 0.05$), means that H_0 is rejected and H_a is accepted, so it can be concluded that there is an influence between the selection of food ingredients and the incidence of diarrhoea in toddlers in the Working Area of the Krayan Health Center.

The Influence Between Storing Foodstuffs with The Incidence of Diarrhea

In toddlers, it was found that the amount of storage of food ingredients did not meet the requirements of 32 (74.4%) respondents. While the number of storage of food ingredients that meet the requirements is 13 (100.0%) respondents. And the number of respondents who had diarrhoea was 11 (19.6%), and the number who answered that they had never had diarrhoea was 45 (80.4%) respondents.

The results of statistical tests using the Fisher Exact test show that the p-value ($0.39 > \alpha 0.05$) means that H_0 is accepted and H_a is rejected so it can be concluded that there is no effect between food storage and the incidence of diarrhoea in toddlers in the Working Area of the Krayan Health Center.

The effect of food processing on the incidence of diarrhoea in toddlers

It was found that the number of respondents in food processing did not meet the requirements as much as 4 (57%) while the number of respondents who in food processing met the requirements was 41 (83.7%). And the number of respondents who answered that they had diarrhoea was 11 (19.6%), and those who answered that they had never had diarrhoea were 45 (80.4%) respondents.

The results of statistical tests using the Fisher Exact test show that the p-value ($0.128 > \alpha 0.05$), means that H_0 is accepted and H_a is rejected, so it can be concluded that there is no effect between food processing and the incidence of diarrhoea in toddlers in the Working Area of the Krayan Health Center.

The Influence Between Storage of Cooked Food and Diarrhea in Toddlers

It was found that the number of respondents in the storage of cooked food that did not meet the requirements was 27 (71.1%), while in the storage of cooked food that met the requirements were 18 (100.0%) respondents. And the number of respondents who answered that they had diarrhoea was 11 (19.6%), and those who answered that they had never had diarrhoea were 45 (80.4%) respondents.

The results of statistical tests using the Fisher Exact test show that the p-value ($0.008 < \alpha 0.05$), means that H_a is accepted and H_0 is rejected so it is concluded that there is an influence between storage of cooked food and the incidence of diarrhoea in toddlers in the Working Area of the Krayan Health Center.

The Influence Between Food Preparation and Transportation with The Occurrence of Diarrhea in Toddlers

It was found that the number of respondents in serving and transporting food that did not meet the requirements was 1 (50.0%), while the number of respondents in serving and transporting food that met the requirements was 44 (81.5%). And the number of respondents who answered that they had diarrhoea was 11 (19.6%) and those who answered that they had never had diarrhoea were 45 (80.4%) respondents. The results of statistical tests using the Fisher Exact test show that the p-value ($0.357 > \alpha 0.05$) means that H_0 is accepted and H_a is rejected so it is concluded that there is no effect between the serving and transportation of food and the incidence of diarrhoea in toddlers in the Krayan Health Center Work Area.

Discussion

a. The Influence of Selection of Foodstuffs on the Incidence of Diarrhea in Toddlers in the Work Area of the Krayan Health Center

From the results of interviews with housewives who answered that they did not meet the requirements as many 24 respondents, the reason for the respondents who did not meet the requirements for choosing food ingredients was because based on the data obtained during the study most respondents when choosing food ingredients paid little attention to physical conditions such as vegetables, other than that Respondents buy more food ingredients, while foodstuffs such as vegetables are better if they are self-planted. And those who answered that they met the requirements were 21 respondents because even though in the selection of food the respondents mostly bought vegetables from their garden, the respondents still paid attention to cleanliness when consuming food.

The selection of food ingredients includes all processed ingredients as well as food additives and auxiliary ingredients. (Kepmenkes No.1908/Menkes/SK/VII/2003). In the selection of food ingredients that need to be considered, namely: food ingredients in good condition, not damaged and not rotting. Food ingredients come from supervised official sources.

b. The Effect of Storing Foodstuffs on the Incidence of Diarrhea in Toddlers in the Working Area of the Krayan Health Center

At the time of the interview with housewives who answered not fulfilling the requirements as many as 32 respondents, the reason the respondents who stored food ingredients so they did not meet the requirements was because when storing food ingredients most of them did not store food ingredients according to the type of food and combined raw food ingredients with food cooked/cooked. And the questionnaire can be seen in the selection of food ingredients that meet the requirements of 13 respondents because the respondents still pay attention to the food storage containers/places in a clean condition.

According to Permenkes RI No.1096/Menkes/Per/VI/2011 concerning Hygiene Santiasi Jasaboga, attachment Chapter III, that the principle of storing food ingredients is: food storage places must avoid the possibility of being contaminated either by bacteria, insects, rats and other animals as well as a hazardous material.

c. The Effect of Food Processing on Diarrhea in Toddlers in the Working Area of the Krayan Health Center

From the results of interviews with respondents who did food processing, 4 respondents did not meet the requirements, the reason was because they were processing food most respondents did not use aprons. And based on the data obtained, 41 respondents met the food processing requirements, the reason being that when processing food, the kitchen was clean and there was a trash can so that the food processed was more hygienic.

d. Influence Storing Cooked Food with Diarrhea in Toddlers in the Working Area of the Krayan Health Center

The results of interviews with respondents about storing cooked food did not meet the requirements of 27 respondents. The reason was that when storing cooked food in the cupboard, they preferred to use a hood over the cooked food. From the results of the questionnaire, 18 respondents fulfilled the requirements for storing cooked food, the reason being that when storing cooked food, the respondents still paid attention to the cleanliness of the container/cover for cooked food.

According to the Minister of Health of the Republic of Indonesia, No.1096/Menkes/Per/VI/2011 concerning food sanitation hygiene, attachment Chapter III cooked/finished food is stored as follows: food is not spoiled, not rotten, or stale which is marked by taste, smell, slimy, changed discoloured, mouldy, change in aroma or the presence of other contaminants. Places or storage containers must be separate for each type of finished food and have lids that can close completely but are ventilated so that moisture can escape.

e. The Effect of Serving or Transporting Food on the Incidence of Diarrhea in the Working Area of the Krayan Health Center

In the results of the interviews that the respondents conducted when serving or transporting food did not meet the requirements, only 1 respondent, the reason was that they did not use a cover for the food to be served, while when serving food that met the requirements as many as 44 respondents because when serving food, the respondents still maintained the cleanliness of the container/ cooked food.

According to the Minister of Health of the Republic of Indonesia No.1096/Menkes/Per/VI/2011 concerning hygiene and sanitation for catering services, attachment Chapter III, food serving is the final sequence of the food journey. The food served is fine dining. And transportation According to the Minister of Health of the Republic of Indonesia No.1096/Menkes/Per/VI/2011 concerning Jasaboga Sanitation Hygiene, Attachment Chapter III. Food transportation does not mix with hazardous and toxic materials (B3). Using a special hygienic food transport vehicle. Each type of finished food has a container and is closed.

4. CONCLUSION

There is no influence between the selection of food ingredients and the incidence of diarrhoea in toddlers in the Working Area of the Krayan Health Center, the results of statistical tests using the Fisher Exact test on the variable selection of food ingredients show that the p-value ($0.081 > \alpha 0.05$) means that H_0 is rejected and H_a is accepted. There is no effect of storing food ingredients on the incidence of diarrhoea in toddlers in the Working Area of the Krayan Health Center, the results of statistical tests using the Fisher Exact test on the variable storage of food ingredients show that the p-value ($0.39 > \alpha 0.05$) means that H_0 is accepted and H_a is rejected. There is no effect of food processing on the incidence of diarrhoea in toddlers in the Working Area of the Krayan Health Center, the results of statistical tests using the Fisher Exact test on food processing variables show that the p-value ($0.128 > \alpha 0.05$) means that H_0 is accepted and H_a is rejected. There is an influence between the storage of cooked food and the incidence of diarrhoea in toddlers in the Working Area of the Krayan Health Center, the results of statistical tests using the Fisher Exact test on the variable storage of cooked food show that the p-value ($0.008 > \alpha 0.05$) means that H_0 is accepted and H_a is rejected. There is no effect between serving and transporting food and the incidence of diarrhoea in toddlers in the Working Area of the Krayan Health Center, the results of statistical tests using the Fisher Exact test on the variable serving and transporting food show that the p-value ($0.357 > \alpha 0.05$) means that H_0 is accepted and H_a is rejected.

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