

## Knowledge, attitudes, and diarrhea prevention

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### ABSTRACT

The aim of the study was to determine the relationship between knowledge and attitudes in the prevention of diarrheal diseases in patients at the Jaten II Health Center in Karanganyar Regency. This type of correlational analytical research uses a cross sectional approach. The sampling technique in this study is total sampling. The research sample of all members of the population was taken for the study sample, as many as 30 patients suffering from diarrhea. The variables observed were knowledge as an independent variable and attitude in preventing diarrheal disease as the dependent variable. Data analysis employed Chi-square test. The results showed that knowledge of diarrheal diseases in the majority of patients was quite as many as 16 respondents or 53.3%. The attitude in the prevention of diarrheal diseases in the majority of patients was less than 16 respondents or 53.3%. There is a significant relationship between knowledge and attitudes in the prevention of diarrheal disease in patients at the Jaten II Health Center in Karanganyar Regency with a value of  $p=0.012$ . It is suggested that the prevention of diarrheal diseases is highly needed by high patient awareness to get a clean and healthy life.

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### 1. INTRODUCTION

Diarrhea is a disease that is still a public health problem in developing countries including Indonesia. This is due to the high morbidity and mortality. According to the WHO [1], diarrhea is still a world health problem, especially in developing countries. The magnitude of the problem is evident from the high rates of diarrhea morbidity and mortality, which is around four billion cases worldwide and 2.2 million of them die, which is dominated by children under the age of 5 years.

From 2000 to 2010 the morbidity survey carried out by the Department of Health Diarrhea Subdistrict found increased incidence of diarrhea. In 2000 the incidence of diarrhea was 301/1000 residents, in 2003 the incidence of diarrhea rose to 374/1000 residents, in 2006 the incidence of diarrhea rose to 423/1000 residents and in 2010 the incidence of diarrhea became 411/1000 residents [2]. Based on the pattern of causes of death of all ages, diarrhea is the cause of death ranked 13th with a proportion of deaths of 3.5%. While based on infectious diseases, diarrhea is the third leading cause of death after Tuberculosis and Pneumonia [3].

The prevalence of diarrhea in the riskesdas of 2007 clinical diarrhea was 9.0% (range: 4.2%-18.9%), the highest in Nangroe Aceh Darussalam (NAD) at 18.9% and the lowest in Special Region (DI) Yogyakarta at 4.2%. Some provinces have a prevalence of clinical diarrhea >9% (NAD, West Sumatra, Riau, West Java, Central Java, especially in Karanganyar District with a high prevalence of clinical diarrhea as indicated by people's knowledge and attitudes towards healthy living habits, Banten, West Nusa Tenggara, East Nusa Tenggara, South Kalimantan, Central Sulawesi, Southeast Sulawesi, Gorontalo, West Papua and Papua) [4]. The 2013 Basic Health Research results showed the prevalence of children suffering from diarrhea dropped

dramatically, from 9% in 2007 to 3.5% in 2013. One of the things that made this success achieved was one of knowledge and attitudes, one of which was the habit of washing hands decreased [5]. The Household Health Survey (SKRT), Mortality Study and Basic Health Research (Riskesdas) from year to year are known that diarrhea is still the main cause of child mortality in Indonesia. The main cause of death from diarrhea is inappropriate management both at home and at health facilities. To reduce deaths due to diarrhea, it needs a fast and appropriate management [6].

Data from the Karanganyar District Health Office found the distribution of cases according to the type of disease in the SKD and the response in Karanganyar District in 2015 as many as 17,485 acute diarrhea cases were ranked first from other diseases. The results of recapitulation of patients with diarrhea in health facilities and cadres in Jaten II Karanganyar, obtained results in January-December 2015 as many as 1,275 people suffered from diarrhea starting <1 year to age >15 years, the highest cases of acute diarrhea in January 2015, as many as 145 people began <1 year to age >15 years, in September 2015 there was a decrease in cases of acute diarrhea of 88 people and in December 2015 it increased to 115 people suffering from diarrhea ranging from <1 year to age >15 years. While the area adjacent to Jaten II, namely Jaten I Karanganyar in January-December 2015, only 848 people suffered from diarrhea [7].

## 2. RESEARCH METHOD

The type of research used is correlational analytics using a cross sectional approach. The cross sectional design is a design with observation and measurement of variables carried out at one particular time only [8]. The analytical correlation method in this study was used to measure the relationship between knowledge and attitudes in the prevention of diarrheal diseases in Jaten II Health Center, Karanganyar Regency.

The research was carried out in Jaten II Health Center, Karanganyar Regency in 2017. The population in this study were all diarrheal patients (all ages) in the Jaten II Health Center in Karanganyar Regency (30 patients). The sampling technique used in this study was total sampling where all members of the population were taken for the study sample as many as 30 patients suffering from diarrhea. The research instrument used in this study was questionnaire. Data analysis techniques used non-parametric statistical tests with chi-square test ( $\chi^2$ ) with a confidence level of 95% ( $p < 0.05$ ).

## 3. RESULTS AND DISCUSSIONS

### 3.1. Age of respondents

The results of the distribution based on the age of the respondents can be seen that most of the age between 25 to 32 years as many as 12 patients or 40.0%. This indicates that patients suffering from diarrhea in Jaten II Health Center Karanganyar District are dominated by the average age which tends to be productive. Younger age is more at risk for diarrhea, because at a young age there is a difference in immunity.

According to [9], with increasing age a person will experience changes in psychological and psychological aspects (mental). Overall physical growth has four categories of changes, namely changes in size, changes in proportions, loss of old features and emergence of new characteristics. This occurs due to maturation of organ function. On the psychological and mental aspects of a person's level of thinking is more mature and mature. Table 1 presents the age of respondent.

Table 1. Respondents' age frequency distribution

No	Age	Frequency	Percentage
1.	25-32 tahun	12	40.0%
2.	33-40 tahun	10	33.3%
3.	>40 tahun	8	26.7%
	Total	30	100.0%

### 3.2. Gender of respondents

The results of distribution based on the sex of the respondents can be seen that most of the women were 19 patients or 63.3%. This indicates that patients suffering from diarrhea in Jaten II Health Center Karanganyar District are dominated by women. Gender is related to the incidence of diarrhea due to the influence of behavior and exposure. Diarrhea is a gender health problem, women are more at risk of suffering from diarrhea than men because they are generally more involved in household activities. Daily activities in the household can affect the incidence of diarrhea, such as cooking, cleaning the house

from dust, and other tasks that are a source of pathogen exposure in the household as well as various chemicals [10]. Table 2 describes the gender of respondent.

Table 2. Respondent gender frequency distribution

No	Gender	Frequency	Percentage
1.	Man	11	36.7%
2.	Women	19	63.3%
	Total	30	100.0%

### 3.3. Educational respondents

The results of distribution based on respondents' education can be seen that most junior high school graduates as many as 11 patients or 36.7%. This indicates that patients suffering from diarrhea in the Jaten II Health Center, Karanganyar Regency are dominated by the latest junior secondary education. The higher the level of education of a person, it is expected that the better the level of understanding and easy to receive messages or information, including information in the health sector.

Education means guidance given to someone by someone for something so they can understand. It cannot be denied that the higher a person's education is, the easier they are to receive information, and in the end the more knowledge they have. Conversely, if someone has a low level of education, it will hinder the development of one's attitude towards the acceptance of information and new values are introduced [11]. Table 3 explains education of respondent.

Table 3. Respondents' education frequency distribution

No	Education	Frequency	Percentage
1.	Elementary School	9	30.0%
2.	Junior High School	11	36.7%
3.	High School	7	23.3%
4.	College	3	10.0%
	Total	30	100.0%

### 3.4. Work

The distribution results based on the work of respondents can be seen that most housewives are 12 patients or 40.0%. This indicates that patients suffering from diarrhea in Jaten II Health Center Karanganyar Regency are dominated by jobs as housewives. Jobs generally relate to income so that it affects the ability of access in the field of health services. Someone with good work and income will find it easier to meet the needs of food, clothing, shelter and health services than those with low income.

The work will determine the socio-economic status because from work all needs will be fulfilled. Work does not only have economic value, but human efforts to get satisfaction and get rewards or wages, in the form of goods and services, will meet their life needs. Work is a must for every individual because in work there are two aspects, physical satisfaction and fulfillment of life needs [12]. Table 4 presents the employment of respondent.

Table 4. Distribution of frequency of work of respondents

No	Work	Frequency	Percentage
1.	Housewife	12	40.0%
2.	Laborer	2	6.7%
3.	Farmer	10	33.3%
4.	Entrepreneur	3	10.0%
5.	Private	3	10.0%
	Total	30	100.0%

### 3.5. Knowledge of diarrhea in patients in Jaten II Health Center, Karanganyar Regency

Based on the results of the study, Table 5 shows that the knowledge of diarrheal diseases in patients in the Jaten II Health Center in Karanganyar Regency was as much as 16 patients or 53.3%. Low knowledge and ignorance result in mishandling when preparing food/drinks. Therefore education about handling food including water brings great benefits to prevent diarrheal diseases

Knowledge is a very important domain to master, because by knowing something we can implement and make guidelines for further actions [13]. Knowledge is a guideline in shaping a person's actions and behavior. The existence of knowledge will raise awareness of someone who finally triggered it to behave in accordance with the knowledge they have [14].

Table 5. Knowledge of diarrhea

No	Knowledge	Frequency	Percentage
1.	Less	8	26.7%
2.	Enough	16	53.3%
3.	Well	6	20.0%
	Total	30	100.0%

### 3.6. Attitudes in prevention of diarrhea in patients in Jaten II Health Center, Karanganyar Regency

Table 6 shows that the attitude in the prevention of diarrheal diseases in patients in the Jaten II Health Center in Karanganyar Regency was 16% or 53.3%. The formation of attitudes is influenced by personal experience, culture, other people who are considered important, mass media, etc. The assessment of the attitude of clean and healthy living includes the use of clean water, washing hands with clean water and soap and using healthy latrines showing attitudes that support the prevention of diarrheal diseases. Attitude is certain regularity in terms of feeling (affection), thought (cognition), and predisposing actions (konasi) one another towards one aspect in the surrounding environment [15].

Every individual has a different attitude to each other. Individuals have a positive attitude when individuals feel happy and are able to put themselves at the level of existing attitudes [16]. According to [3] a person's attitude towards an object is a feeling of supporting or favoring (feeling) and feeling not supporting or impartial (unfavorable) on the object.

Table 6. Attitude in prevention of diarrhea

No	Attitude	Frequency	Percentage
1.	Less	16	53.3%
2.	Well	14	46.7%
	Total	30	100.0%

### 3.6. Relationship between knowledge and attitudes in prevention of diarrhea in patients in Jaten II Health Center, Karanganyar Regency

The results of the current study are in line with his research [17] stated that there was a significant relationship between mother's knowledge, attitudes and behavior towards the incidence of diarrhea in children under five at Patalassang Public Health Center, Takalar District. The results of the research of [18] concluded that there was a significant relationship between the relationship between knowledge and the habit of washing hands with soap in housewives to prevent diarrhea and ARI.

The creation of a healthy environment is inseparable from the contribution of human behavior. Health services will also not succeed if there is no change in behavior even though health facilities are adequate. Some indicators that can affect diarrheal diseases in Jaten Karanganyar such as clean and healthy living behavior (PHBS) are still low, there are still many families that do not have access to clean water and the lack of families who have basic sanitation facilities that meet health requirements will affect the increase diarrhea in Jaten, Karanganyar Regency. One of the things that made this success achieved was one of knowledge and attitudes, one of which was the habit of washing hands so that diarrhea could decrease [19]. Table 7 shows the result of relationship between variables.

Table 7. Relationship between knowledge and attitudes in prevention of diarrhea

Knowledge	Attitude				Total		p	C
	Less		Well		f	%		
Less	6	20.0	2	6.7	8	26.7	0.012	0.478
Enough	10	33.3	6	20.0	16	53.3		
Well	0	0.0	6	20.0	6	20.0		
Total	16	53.3	14	46.7	30	100		

#### 4. CONCLUSION

Knowledge and attitude are determinant variable on diarrhea prevention. Current research showed that there is a significant relationship between knowledge and attitude in the prevention of diarrheal disease in patients at the Jaten II Health Center in Karanganyar Regency.

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