

Use Of Guava As A Prevention Of Acute Diarrhea In Toddlers

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ABSTRACT

The 2018 Balitbangkes Basic Health Research (Risikesdas) data shows the prevalence of diarrhea in toddlers is 12.3%. Risikesdas also stated that the most common cause of infant death was diarrhea (31.4%). According to the 2010 diarrhea morbidity survey, the largest proportion of sufferers was in the 6-11 month age group, which was 21.65% (Ministry of Health, 2011). This study aims to get an overview of the use of guava leaves as an effort to prevent acute diarrhea in toddlers. The method used in this study is quantitative, which is to find out an accurate description of the use of guava as an effort to prevent acute diarrhea in toddlers. From the results of the study it was found that most children who experienced diarrhea consumed guava as an alternative treatment by 60%. Giving decoction of guava leaves effective in reducing the frequency of diarrhea when consumed regularly, besides that it can be used by the community as traditional medicine that has easy profit, easy way its use, and many residents who plant. It is suggested to mothers of toddlers to use an alternative to giving guava leaves as a treatment or prevention of acute diarrhea in toddlers.

Received : May 3rd 2023

Accepted : May 9th 2023

Published : May 20th 2023

Keywords : Diarrhea, Guava, Toddlers

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INTRODUCTION

Recapitulation of the number of outbreaks of diarrhea from 2008 to 2015, it can be seen that the CFR during outbreaks was still high (> 1%) except in 2011 the CFR during outbreaks was 0.40%, whereas in 2015 the CFR for diarrhea during outbreaks even increased to 2.47% (MOH RI, 2015). Meanwhile, based on Indonesia's health profile in 2015, there were 18 outbreaks of diarrhea in 11 provinces, 18 districts/cities, with a total of 1,213 sufferers and 30 deaths (CFR 2.47%). The mortality rate (CFR) during an outbreak of diarrhea is expected to be <1%. (Swathma et al., 2018)

The incidence of diarrhea in the province of West Nusa Tenggara in 2010 reached 86.70%, increased in 2011 to 92.92% and in 2012 the incidence of diarrhea reached 90.81%. The scale of the incidence of diarrhea from the results of a survey finding cases of diarrhea in Mataram City in 2015 was 17,726. The highest percentage of cases of diarrhea was recorded

at the Cakranegara health center with 3293 (63.2%) and the lowest was in the Dasan Agung health center with 667 (17.90%) babies. (Profil Kesehatan Kota Mataram, 2013)

Diarrhea in infants and toddlers can be caused by several factors including: namely: infection, malabsorption, food, and child psychology. Enteral infection is an infection from outside the digestive tract, which is the main cause of diarrhea in children. Enteral infections are caused by bacteria, viruses and parasites. Modern treatment that is mostly done is by administering oral antibiotics which are commonly found in pharmacies which are relatively expensive and can cause side effects for sufferers of diarrhea. Another treatment alternative is traditional medicine which has the advantage of being easy to obtain and relatively inexpensive. One alternative treatment that is widely used in the community is to utilize herbal plants using guava leaves (Pratiwi & Puspitasari, 2017). Herbal treatments derived from plants are an alternative in treating diarrheal diseases. Treatment of diarrhea with herbs is done to avoid side effects of anti-diarrhea drugs. *Psidium guajava* L. which has been studied with certain doses has anti-diarrhea activity.

Guava leaves contain various components including carotenoids which function as antibacterials that can kill or prevent the growth of bacteria that cause diarrhea and contain other compounds that are very beneficial to health (Rukmana and Yudirachman, 2016).

Psidium guajava L. also has other ingredients that have potential as anti-diarrhea, namely essential oils and alkaloids. The alkaloids in *Psidium guajava* L. leaves are anti-bacterial as well as essential oils that can inhibit the growth of *Salmonella typhimurium* bacteria by interfering with the process of forming membranes or cell walls which are known to have the potential as one of the microorganisms that cause diarrhea. (Sudira et al., 2019)

METHODS

The method used in this research is quantitative, which is to find out an accurate picture of the use of guava as an effort to prevent acute diarrhea in toddlers, namely the type of plant, processing method, processing time and amount processed. The population in this study was the population of this study were mothers who had children who suffered from diarrhea at least 1 month before the study was conducted, mothers with children aged 1-5 years. Determination of the sample using total sampling technique.

RESULT

Based on research that was carried out in August 2022 in the Dasan Kolo environment, the working area of the Karang Pule Community Health Center, Mataram City, the following results were obtained:

Characteristics of Research Subjects**Tabel 1 . Frequency distribution of the characteristics of the respondents**

No	Variable		F	P(%)
1	Mother's Age	<20 years	12	11
		20-35 years	66	63
		>35 years	27	26
2	mother's education	Primary school	34	32
		Junior High School	48	46
		Senior High Scholl		
		College	20	19
			3	3
3	Toddler Age	<1 years	44	42
		1-3 years	61	58
4	Birth Weight	LBW	39	37
		Not LBW	66	63
Total			105	100

Table 1 shows that 63% of respondents are aged 20-35 years, 46% of mothers' education is junior high school, 58% of toddlers are aged 1-3 years and as much as 63% of their birth weight is normal or not LBW.

1. Analisis Univariat

Univariate analysis was used to see the frequency distribution of the dependent variable, namely the use of guava leaves in overcoming diarrhea in toddlers in the Dasan Kolo environment, the working area of the Karang Pule Health Center, Mataram City.

Table 2. Frequency Distribution of the Use of Traditional Medicines in the Dasan Kolo Environment

	Frequency	Percentase (%)
Yes	79	75
No	26	25
Total	105	100

Table 2 above shows that 75% of mothers under five use traditional medicine as the first step in treatment when their child is sick.

Tabel 3. Distribution of the frequency of diarrhea in children in the Dasan Kolo environment

	Frequency	Percentase (%)
Yes	65	62
No	40	38
Total	105	100

Table 3 above shows that 62% of children under five experienced diarrhea in the last 3 months. This study showed that 62% of children under five had diarrhea and 38% of children under five had not had diarrhea in the last 3 months.

Table 4. Distribution of treatment frequency for diarrhea

	Frequency	Percentase (%)
Guava	43	66
Modern medicine	22	34
Total	65	100

Table 4 above shows that 66% of mothers under five use guava leaves as a treatment when their child has diarrhea and 22% immediately use modern medicines.

Table 5. Distribution of the frequency of drug manufacturing methods

	Frekuensi	Persentase (%)
Boiled	10	23
Pounded	22	51
Drained	2	5
Cut pieces	9	21
Total	43	100

Table 5 above shows that 22% of mothers under five used guava as an initial treatment for diarrhea in their children, namely by pounding it and 10% of mothers by boiling it.

DISCUSSION

The use of traditional medicine in the Dasan Kolo community is still very well maintained. From the results of this study, it was found that 75% of respondents used traditional medicine as the first step in treatment when children were sick. Traditional medicines are ingredients or ingredients in the form of plants, animal ingredients, mineral ingredients, galenic preparations or mixtures of these ingredients which have been used for generations for treatment and are applied according to the norms in force in society (BPOM, 2019). The use of traditional medicine in Indonesia, including herbs, has been used for a long time by our ancestors to treat health problems or diseases in children under five, such as coughs, colds, fever, diarrhea and to increase immunity. In this study it was shown that 75% of mothers under five used traditional medicine as the first step in treatment when their child was sick and as many as 25% did not use it. Use of traditional medicine.

Diarrhea in infants and toddlers can be caused by several factors including: namely: infection, malabsorption, food, and child psychology. Enteral infection is an infection from outside the digestive tract, which is the main cause of diarrhea in children. Enteral infections are caused by bacteria, viruses and parasites. Modern treatment that is mostly done is by administering oral antibiotics which are commonly found in pharmacies which are relatively expensive and can cause side effects for sufferers of diarrhea. Another treatment alternative is traditional medicine which has the advantage of being easy to obtain and relatively inexpensive. One alternative treatment that is widely used in the community is to utilize herbal plants using guava leaves (Fратиwi, 2015). Guava leaves contain various components including carotenoids which function as antibacterials that can kill or prevent the growth of bacteria that cause diarrhea and contain other compounds that are very beneficial to health (Rukmana and Yudirachman, 2016).

Based on Frатиwi's research (2015) showed that someone who consumed boiled crushed guava leaves for 1-2 days was effective in reducing diarrhea because guava leaves contain extra

ethanol which has antibacterial and anti-diarrhea activity. According to research conducted by Tannaz et al., (2014), (Fartiwi, 2015) the guava plant, especially the leaves, has a higher effectiveness compared to several other plants used as anti-diarrhea. The guava plant that is often used as medicine is the leaf part, because the many active components found in guava that have an anti-diarrhea effect are tannins, flavonoids, essential oils, and alkaloids (Fратиwi, 2015). According to the researchers, if family members are able to apply it well, every family member experiences diarrhea, it will shorten the time of diarrhea.

Herbal medicine derived from plants. Being an alternative in treating diarrheal disease, diarrhea treatment with herbs is done to avoid the side effects of antidiarrheal factories. *Psidium guava* L which has been studied with certain doses has anti-diarrhea activity. The method used in this study is to use this anti-diarrhea drug on humans for trials, namely by consuming it regularly for three days or one week according to the condition of the stomach. Increased circulation causes diarrhea. Not only is the fruit high in benefits, even part of the guava leaf turns out to have many health benefits. Guava leaves are used as anti-diarrhea, intestinal inflammation, dysentery, and digestive disorders because they contain tannins which are anti-microbial and astringent. In addition, guava leaves are also efficacious for treating thrush, hemorrhoids, diabetes, and flatulence in children. Guava leaves are suitable for use in herbal medicine, which has many health benefits and is also safe for health because there are no chemical substances. Utilization of guava in this village uses more of the fruit. The use of guava leaves is still done traditionally by pounding it for the treatment of diarrheal diseases. With this research, it is hoped that residents can find out the benefits of guava more broadly as a family herbal medicine. Giving guava leaf decoction is effective in reducing the frequency of diarrhea when consumed regularly, besides that it can be used by the community as a traditional medicine which has the advantage of being easy to obtain, easy to use, and lots of people who plant it.

CONCLUSION

The research shows that 66% of mothers under use guava leaves as a treatment when their child has diarrhea and 22% immediately use modern medicines. Guava leaves are suitable for use in herbal medicine, which has many health benefits and is also safe for health because there are no chemical substances.

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