



THE EFFECT OF GIVING COCONUT OIL SCRUB WITH LIME WATER TO REDUCING BODY TEMPERATURE IN TODDLER WITH FEVER

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ABSTRACT

Fever or febrile is a condition where the body temperature becomes higher, and this is a symptom of disease. This fever occurs due to the normal response to infections in the body, infections that occur due to microorganisms that enter the body, which are viruses, fungi, parasites and bacteria. Giving coconut oil scrub with lime water is believed to help reduce fever in toddlers. Objective to determine the effect of giving coconut oil scrub with lime water on reducing body temperature in toddlers with fever. This research is a type of experimental research. The research population is a toddler with a high body temperature of 35 people at the Nining Clinic in 2024. The sample in this study was 30 toddlers with high body temperature using purposive sampling. The Body Temperature Measurement Procedure uses a thermometer in axillary 3 times before treatment, directly after treatment, and 30 minutes after treatment. Data analysis using t paired sample test. Research shows that the average temperature measurement of toddlers is 38.77 degrees Celsius (fever). While the average temperature after giving coconut oil and lime scrub was 37.30 degrees Celsius with a normal temperature of 21 (70%) and 9 people had fever (30%). The result of the paired sample test is calculated by 11,897 with a value of $p=0.000$ ($p<0,05$). This means that there is a significant difference between the temperature before the treatment of coconut oil only scrub and coconut oil and lime scrub. This result proves that giving coconut oil body scrub with lime water has a positive effect on lowering body temperature in toddlers with fever at the Nining Clinic in 2024. There is a significant effect of giving coconut oil scrub with lime water on the decrease in body temperature in toddlers with fever at the Nining Clinic in 2024.

Keywords: coconut oil scrub; fever; lime water; toddler

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INTRODUCTION

According to World Health Organization (WHO) data in 2022, the number of fever occurrences worldwide is around 17 million per year, the death rate from fever reached 600,000 and 70% occurred in Asia (WHO, 2022). Based on Basic Health Research in 2020, the prevalence of fever in Indonesia is 1.5% or about 1,500 per 100,000 Indonesian population. The highest prevalence of fever in children is ages 1-4. From the data obtained by the Central Java Provincial Health Office in 2019, based on the integrated surveillance, 44,422 had fever and increased in 2020 to 46,142 patients (Ministry of Health, 2020). In Indonesia, there are 800 people per 100,000 inhabitants per year. The incidence of myxomatosis diseases in Indonesia is higher than that in other countries, especially in parts of the tropics area, there are around 80-90%, 1,600,000-1.3 million cases with more than 20 deaths every year. Therefore, we must take serious medical treatment (Harnani, 2019). Toddlers hear the word Toddler, so what we have in mind is an abbreviation of under five years. For the sake of our shared perception in reading this study, I'm limiting it as infants and children five years old and below. Next we call infancy and early childhood, as each has different characteristics (Hanum Marimbi, 2017).

Fever or febrile is a condition where the body temperature becomes higher, and this is a symptom of disease. Body temperature is said to be normal, if the temperature is 36.5°C – 37.5°C, if the body temperature exceeds the normal range, it can be said to be hyperthermic or abnormal. This fever occurs due to the normal response to infections in the body, infections that occur due to microorganisms that enter the body, which are viruses, fungi, parasites and bacteria. Fever may also be caused by overexposure to sunlight (overheating), dehydration or lack of fluids, allergies due to immune system disorders (Pratiwi, 2021). Coconut oil contains 90% saturated fatty acids. Coconut oil contains 84% triglycerides, a sterol contained in vegetable oil called phytosterol. The sterol is a stabilizer (Muchtad, 2015). Coconut oil based on fatty acid content is classified as lauric acid oil, as its lauric acid content is the largest compared to other fatty acids (Muchtad, 2015). The many benefits contained in coconut oil are for health, so I don't think it's an exaggeration to be called health rich. Today, the use of coconuts is more developed. One of them is by making it into pure coconut oil (virgin coconut oil/VCO). Until now, pure coconut oil has been widely discussed because of its health benefits. Experts are also starting to be interested in understanding the content of VCO and its relationship with human health (Tara Putra, 2019).

The medicinal properties of lime have been used for a long time. Almost all parts of the plant can be used as traditional medicinal ingredients. The lime leaves can be used as a fever medicine. The lime root part can be used as a medicine for dysentery and amebiasis by boiling lime root in water. The root boiled water is then filtered and drunk regularly. Lime parts are quite often used in various traditional treatments. In its use, lime fruit is quite processed by just being squeezed. Then lime water is added with other natural ingredients that can be used as medicine. Lime fruit is commonly used as a cough, influenza, heat pain, constipation, shortness of breath, tonsils, malaria, and less pain during the month (Putra, 2015). Based on the initial survey at the Nining Midwife Clinic on children with fever, there are 3 children who have fever. And after being questioned, he has never used coconut oil slurry to reduce body temperature in children with fever. And don't take any other medicines or herbs. Based on the above description, To determine the effect of administering coconut oil flour with lime juice on the reduction of body temperature in febrile toddlers.

METHOD

The research employed a Pre-Experimental Design with the One-Group Pretest-Posttest Design, where one group was observed before and after treatment without a control group (Yusuf, 2017:78). The study population consisted of 35 toddlers with fever at the Nining Clinic in 2024, with a sample of 30 toddlers selected using purposive sampling based on specific inclusion criteria. Body temperature was measured using an axillary thermometer at three intervals: before treatment, immediately after treatment, and 30 minutes after applying a coconut oil and lime water scrub. Data were collected through direct measurement and recorded systematically. The effect of the intervention was analyzed using the paired sample t-test to determine the significance of changes in body temperature before and after the treatment, with a significance level of $p < 0.05$.

RESULT

The results of this research are data analysis of the effect of giving coconut oil body scrub with lime water on reducing body temperature in toddlers with fever using the t-test. The results of the t test analysis before and after giving coconut oil body scrub with lime water on reducing body temperature in toddlers can be seen in table 4.4 below.

Table 4.
The Effect of Giving a Coconut Oil Body Scrub with Lime Water on Reducing Body Temperature in Toddlers with Fever at the Nining Clinic in 2024

Reducing Toddlers	Fever	in	N	Mean	mean difference	t-count	p-value
Before			30	38,77	1,47	11,897	0,000
After			30	37,30			

Table 4. shows that the average temperature measurement for toddlers before giving coconut oil scrub with lime water was 38.77 degrees Celsius (fever), with the highest temperature being 39.8 and the lowest temperature being 38.0. From the characteristics of the temperature before administering the coconut oil scrub, it can be said that most of the temperatures before administering the coconut oil scrub are higher. Meanwhile, the average temperature value after administering the coconut oil and lime scrub was 37.30 degrees Celsius with the highest temperature being 38.5 and the lowest temperature being 36.0. This means that the temperature before applying the coconut oil and lime scrub can be said to be lower. Based on the results of the t paired sample test, the t count was 11.897 with a value of $p=0.000$ ($p<0.05$). This means that there is a significant difference between the temperature before the coconut oil scrub alone and the coconut oil and lime scrub. These results show that there is a significant effect of giving a coconut oil scrub with lime water on reducing body temperature in feverish toddlers at the Nining Clinic in 2024. These results prove that giving a coconut oil scrub with lime water has a positive effect on reducing body temperature in feverish toddlers at Nining Clinic in 2024.

DISCUSSION

The results of this research are in line with research conducted by Rini and Wayan (2013) that there is a significant difference in the effect of giving coconut oil and lime scrub on reducing fever. The average temperature value after administering the coconut oil scrub was 37.16, the upper limit was 37.39 and the lower limit was 36.93. Meanwhile, the average temperature value after administering the coconut oil and lime scrub was 36.51 and the upper limit was 37.89 and the lower limit was 36.13. From the temperature after giving therapy, it can be said that some children's fevers decreased after being given coconut oil and lime scrub. According to researcher's assumptions, giving coconut oil body scrub with lime water has a positive effect on reducing fever in toddlers. This happens because the combination may have a calming effect and lower body temperature. Lime water has refreshing properties and may have a cooling effect when applied to toddlers' skin. This can help reduce high body temperature due to fever. The fragrant and fresh smell of lime water can have a relaxing effect and increase comfort in toddlers who feel uncomfortable due to fever. Coconut oil has antimicrobial and anti-inflammatory properties which can help fight infection and reduce inflammation on the skin of toddlers with fever. Using coconut oil in a body scrub can also provide moisture to the skin. Furthermore, the scrub process itself, which involves gentle massage when applying the mixture to the toddler's skin, can have a calming effect and strengthen the emotional bond between parents and children.

CONCLUSION

From the research and discussion that has been carried out, it can be concluded that there is a significant effect of giving coconut oil body scrub with lime juice on reducing body temperature in toddlers with fever at Nining Clinic in 2024.

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