


The Effect Of Giving Water Vapor Therapy With Gotu Kola Essential Oil (Centella Asiatica) Terhon Respiratory Disorders Of Toddlers At Rismala Clinic In 2022

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Article Info	Abstract
<p>Keywords: Steam inhalation therapy, essential oil Gotu Kola (Centella Asiatica) in toddlers</p>	<p>Background: ineffective breathing pattern is a state where inspiration and / or expiration do not provide adequate ventilation. One of the efforts that can be done to is by way of water vapor inhalation therapy air. Water vapor inhalation therapy air is helpful for removing blockages in the respiratory tract. Steam inhalation therapy can be done by adding herbal oils such as Gotu Kola essential oil to enhance the effect of the treatment. The purpose of this study was to analyze the effect of steam inhalation therapy with Gotu Kola essential oil on the ineffectiveness of breathing patterns in children. Research Methods: this study is a literature review study using 2 articles adapted to the inclusion criteria and analyzed qualitatively. Results of the study : based on the results of both articles showed that there was an increase in breath patterns before and decreased breath patterns after being given Gotu Kola essential Oil steam inhalation therapy and there was an effect of steam inhalation therapy with Gotu Kola essential Oil on the ineffectiveness of breath patterns in toddlers. Conclusion : it can be concluded that in both articles, the results obtained are the effects of steam inhalation therapy with eucalyptus oil on the ineffectiveness of breath patterns in children keywords: inhalation, Eucalyptus Oil, breath patterns</p>
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INTRODUCTION

Respiratory diseases are a group of complex and heterogeneous diseases that are caused by a variety of causes and can affect any location along the airways. Respiratory diseases are one of the biggest causes of death cases in Indonesia and in other countries (Sondakh, Onibala, and Nurmansyah 2020).

Airway disease is a disease whose incidence rate is quite wide and can affect anyone regardless of age and ethnicity. Things that can result from this respiratory disease are ineffective breathing patterns, ineffective airway clearance, gas exchange disorders, and others (Apriyani 2015). Ineffective breathing pattern is a situation where inspiration and expiration that does not provide adequate ventilation (PPNI 2017).

As a result of ineffective breathing patterns will cause hypoxia (decreased oxygen intake) and then develop rapidly into severe hypoxemia (a condition of oxygen levels in the

blood less than normal), decreased consciousness and lead to death (Irianto 2014). Actions that can be done are oxygen inhalation (oxygen administration), chest physiotrapy, deep breathing and effective coughing, section or suction of mucus, steam inhalation (Ikawati 2016).

One effort that can be done to is by way of steam inhalation therapy, this method is a good and simple natural method that is with steam and heat (Willington 2013). Steam inhalation therapy is very helpful to eliminate blockages in the respiratory tract such as colds, bronchitis, pneumonia and various other respiratory conditions, steam inhalation opens up the blocked nose and part of the lungs that allows to release or thin the mucus, breathe easier and heal faster. To make steam, can use water only or can add herbal oils such as eucalyptus oil to enhance the effect of the treatment. Inhalation of inhaled water vapor aims to multiply the secretions produced in the throat. This method is more effective and cheaper (Ikawati 2016)

The main content of eucalyptus oil is eucalyptol which can provide mucolytic (diluting phlegm), bronchodilating (relieving breathing), anti-inflammatory and cough suppressant effects (Iskandar, Utami, and Anggriani 2019). Based on the results of a study conducted by Pramudaningsih and Afriani (2019) on “the effect of steam inhalation therapy with eucalyptus aromatherapy in reducing shortness of breath in patients with 3 bronchial asthma in Dersalam Village, Bae Kudus District” concluded that the breath scale after being given steam inhalation therapy with eucalyptus aromatherapy most respondents had reduced shortness of breath. Meanwhile, a study conducted by Nuraeni, Wanda, and Tri Waluyanti (2019) on “the effect of Steam Inhalation on breathing efforts in toddlers with Pneumonia at the Subang Regency Health Center, West Java Province” concluded that after steam inhalation the average frequency of breathing of respondents experienced changes and decreases.

This study was conducted to review the journals that have been studied on the provision of water vapor therapy with Essential Oil Gotu Kola (*Centella Asiatica*) against respiratory disorders toddlers, researchers expect that by doing this research it can be seen whether the water vapor therapy with Essential Oil Gotu Kola (*Centella Asiatica*) is effective or not in overcoming respiratory disorders toddlers.

METHOD

The literature study conducted by the researcher is by searching various sources, namely google book and google scholar by searching steam inhalation therapy with eucalyptus oil, in the form of books, journals, articles relevant to the problems studied. So that the information obtained from this literature study is used as a reference to strengthen the existing arguments. This study focuses on the effect of steam inhalation therapy with eucalyptus oil on the ineffectiveness of breathing patterns in children obtained from articles with similar discussions, so that data that have been produced from a previous study can be used and used as a basis for research.

RESULTS AND DISCUSSION

The results of a critical analysis of 2 articles entitled The effect of steam inhalation therapy Gotu Kola Essential Oil (*Centella Asiatica*) on breathing patterns in patients under five with respiratory disorders in the Rismala clinic area in 2022, and the effect of steam inhalation therapy with aromatherapy Gotu Kola Essential Oil (*Centella Asiatica*) with respiratory disorders in reducing shortness of breath in the clinic Rismala. The results of the research sampled in this literature are poured in accordance with the objectives set by the author in the table below :

Article No.	1	2
title	the effect of steam inhalation therapy with Gotu Kola Essential Oil (<i>Centella Asiatica</i>) on breathing disorders in rismala clinic in 2022	the effect of steam inhalation therapy with Gotu Kola Essential Oil (<i>Centella Asiatica</i>) in reducing shortness of breath in toddlers in rismala clinic
Design approach	quasy exsperiment approach design : two group pre test and post test	Quasy exsperiment: design one group pre testpost test
Intervention Group	8 people	8 people
Control Group	8 people	8 people
dependent variable	breath pattern	reduce shortness of breath
Instruments	observation instrument average breath pattern	interview, observation sheet, and observation of shortness of breath complaints using the American Thoracic Society (ATS)shortness of breath scale
Findings	the findings of this study on the pre-test intervention group showed a minimum breath pattern of 23 and a maximum breath pattern of 26, while the post-test showed a minimum breath pattern of 20 and a maximum breath pattern of 23. The results in the pre test control group showed a minimum breath pattern of 22 and a maximum breath pattern of 26, while the post test showed a minimum breath pattern of 21 and a maximum breath pattern of 25-the results of statistical tests using the independent t test test for a decrease in the breath pattern obtained p value = 0.006 less significant differences between the results of the breath pattern in the intervention group and the control group on the reduction of breath patterns in toddlers with breathing disorders	the results of this study were the intervention group pre test showed from the previous 5 respondents experienced severe shortness and 3 respondents experienced severe shortness, then after being given steam inhalation therapy day every morning with a duration of 20-30 minutes there are 5 respondents shortness of breath with mild degrees, 2 respondents with moderate degrees and 1 respondent with severe degrees. Results in the pre test control group from the previous 2 respondents experienced severe shortness, 3 respondents experienced mild shortness and severe shortness then after being given regular relaxation therapy post test there were 4 respondents experienced severe shortness of breath, and 2 respondents experienced mild and

Article No.	1	2
conclusion the	<p>conclusion of this study is that there is an effect of steam inhalation therapy of Gotu Kola Essential Oil (<i>Centella Asiatica</i>) on with Ari in rismala clinic ($p=0.006$). The results of this study can be used as a reference and information for mothers who have toddlers with Ari about the use of Gotu Kola Essential Oil (<i>Centella Asiatica</i>) as a non-pharmacological therapy to improve breath patterns and become a reference for subsequent researchers to conduct research on ARI with different variables and more samples</p>	<p>very severe degree of shortness of breath - Wilcoxon Signed Rank Test results obtained data p value of $0.007 < (\alpha) 0.05$ then H_0 is rejected and H_1 is accepted which means that there is an effect of steam inhalation therapy with eucalyptus aromatherapy to reduce shortness of breath in patients with bronchial asthma</p> <p>1) shortness of breath scale before given inhalation therapy steam inhalation therapy with eucalyptus aromatherapy in the experimental group most experienced severe shortness of breath as much as 5 respondents and in the control group obtained most of the shortness of breath at very heavy and light degrees as much as 3 respondents</p> <p>2) shortness of breath scale after given money inhalation therapy with eucalyptus aromatherapy in the mild degree of shortness of breath as many as 5 respondents and in the control group obtained shortness of breath in severe degrees as many as 4 respondents.</p> <p>3) Hasil uji Wilcoxon Signed Rank Test di peroleh data p value $0,007 < (\alpha) 0,05$ maka H_0 ditolak dan H_1 diterima yang artinya ada pengaruh Terapi inhalasi uap dengan aromaterapi eucalyptus terhadap penurunan sesak nafas pada pasien Asma Bronkhia</p>

The interventions carried out and the results of the research reviewed are as follows :

Pengaruh Pemberian Terapi Inhalasi Uap Minyak Essensial Oil Pegagan (*Centella Asiatica*) Terhadap Pola Napas pada Pasien Balita dengan gangguan nafasa di klinik rismala (Zaimy, Harmawati, and Fitrianti 2020)

This program intervention is given in the form of steam inhalation therapy Gotu Kola essential oil (*Centella Asiatica*) and without steam inhalation therapy minyak Gotu Kola essential Oil (*Centella Asiatica*) intervention this study began with 16 samples were divided into two groups of 8 intervention groups and 8 control groups. After that, observations were made of the average breath pattern of respondents before a minimum of 23 and a maximum of 26, after being given steam inhalation therapy Gotu Kola Essential Oil (*Centella Asiatica*), which was a minimum of 20 and a maximum of 23 in the intervention

group, and the average breath pattern before a minimum of 22 and a maximum of 26 and uap minyak Gotu Kola (*Centella Asiatica*) essential oil vapors) were a minimum of 21 and a maximum of 25 in the control group. The conclusion of the results obtained that there is a difference although less significant between the results of the breath pattern in the intervention group and the control group which means the effect of steam inhalation therapy Gotu Kola Essential Oil (*Centella Asiatica*) is less significant on the breath pattern in toddlers with breathing disorders.

The effect of steam inhalation therapy with Aromatherapy Essential Oil Gotu Kola (*Centella Asiatica*) in reducing shortness of breath in toddlers at rismala clinic (Pramudaningsih and Afriani 2019)

The intervention of this program is provided in the form of the implementation of steam inhalation therapy with eucalyptus aromatherapy and regular relaxation therapy. Intervention this study began with 16 people who were divided into two groups, namely 8 intervention groups and 8 control groups. After that, interviews and observation sheets were conducted to determine the respiratory rate and observation of shortness of breath complaints using the American Thoracic Society (ATS) shortness of breath scale before being given steam inhalation therapy with eucalyptus aromatherapy, namely 5 respondents experienced severe shortness and 3 respondents experienced very severe shortness and after being given steam inhalation therapy with eucalyptus aromatherapy, namely 5 shortness of breath respondents with mild degrees, 2 respondents with moderate degrees and 1 respondent with severe degrees in the intervention group and before being given regular relaxation therapy, namely 2 respondents experienced severe shortness, 3 respondents experienced mild shortness and severe shortness and after being given regular relaxation therapy, namely 4 respondents experienced severe frequency shortness of breath, and 2 respondents experienced mild and very severe shortness of breath in the control group. The conclusion of the results obtained is that there is an effect of steam inhalation therapy with eucalyptus aromatherapy to reduce shortness of breath.

Discussion

The discussion in this study will review the articles related to the study and compare the articles reviewed to produce conclusions about the effect of steam inhalation therapy with Gotu Kola essential oil (*Centella Asiatica*) on breathing patterns in toddlers.

Breath patterns before and after steam inhalation therapy with Essensial Oil Pegagan (*Centella Asiatica* Essential Oil)

Based on the two research articles showed that there was an increase in breathing patterns before being given Gotu Kola essential oil steam inhalation therapy (*Centella Asiatica*) and a decrease in breathing patterns after being given Gotu Kola essential Oil steam inhalation therapy (*Centella Asiatica*). This is in line with the results of research Dornish et al in Zulnely, Gusmailina, and Kusmiati (2015) states that eucalyptus essential oil can be used as an herbal remedy such as to reduce shortness of breath due to flu or asthma by applying to the chest, treat sinus by inhaling warm water vapor that has been dripped eucalyptus oil and relieve nasal congestion by inhaling the aroma of Gotu Kola Essential Oil (*Centella Asiatica*). The results of a study by Pujiningsih and Musniati (2018) which

explained that children who were given steam inhalation with drops of Gotu Kola Essential Oil (*Centella Asiatica*) could excrete secretions but experienced difficulty when removing secretions, nasal congestion, sore throat, and shortness of breath. While after being given steam inhalation with drops of Gotu Kola Essential Oil (*Centella Asiatica*), children can more easily remove secretions, do not experience sore throat when coughing, nasal congestion is reduced, and breath is relieved.

The pattern of the breath Analysis of the effect of steam inhalation therapy with Gotu Kola Essential Oil (*Centella Asiatica*)

Based on the research of the two articles, different results were obtained on the significant influence on respondents although their breathing patterns decreased. In the first article conducted by Zaimy et al. (2020) it can be concluded that there is a less significant difference between the results of the breath pattern in the intervention group and the control group with the results of the statistical test obtained, namely p value = 0.006 ($p < 0.05$). Researchers assume that the less significant effect of steam inhalation therapy of Essential Oil Gotu Kola oil (*Centella Asiatica*) on the breath pattern in patients under five with breathing disorders in Rismala Clinic year 2022 because in the control group of patients with breathing disorders also experienced changes in breath patterns although not significant. This was helped by pharmacological drugs taken by the control group. Researchers also assume the number of respondents between the intervention group and the control group is small, causing the results of this study to show less significant differences.

This result is in line with The Theory of Kunoli (2013) which explains that the treatment of Ari is by giving antibiotics, giving intravenous fluids if there are signs of dehydration, giving steam inhalation, and giving oxygen. In the second article conducted by Pramudaningsih and Afriani (2019), it was found that the administration of steam inhalation therapy with Aromatherapy Essential Oil Gotu Kola (*Centella Asiatica*) can reduce respiratory frequency in patients who experience shortness of breath, with significant results between pre-test and post-test breath patterns in the intervention group and control group with test results obtained data p value of $0.007 < (\textcircled{3}) 0.05$. This result is supported by research by Maftuchah, Christine, and Jamaluddin (2020) mentioning that aromatherapy can help cure the common cold, this is because Gotu Kola Essential Oil (*Centella Asiatica*) produced from the leaves of the Melaleuca leucadendra plant with the largest content being eucalyptol (cineole) which provides mucolytic effects (dilutes phlegm), bronchodilating (respiratory relief), anti-inflammatory and lowering the average exacerbation.

This is in line with the results of research Nadjib et al. (2014) in his research mentioned that there is evidence to show that essential oil vapor from eucalyptus is effective as an antibacterial and is worth considering its use in the treatment or prevention of patients with respiratory infections in hospitals. According to Dornish et al in Zulnelly, Gusmailina, and Kusmiati (2015) states that eucalyptus essential oil can be used as a herbal medicine such as to reduce shortness of breath due to flu or asthma by applying to the chest, treat sinus by inhaling warm water vapor that has been dripped Essential Oil Gotu Kola Oil (*Centella Asiatica*) and relieve nasal congestion clogged by inhaling the aroma of

Gotu Kola essential oil (*Centella Asiatica*). Essential Oil Gotu Kola (*Centella Asiatica*) or better known as gotu kola leaves is one type of volatile essential oil and is produced from plants through leaf distillation. This oil is used since antiquity as an antiseptic, stomach pain medication, cold medicine, also used for Massage (Massage) and so on. It is known that parts of this plant (bark, stem, leaves, twigs and fruits) can be used as medicine. Essential oil of Eucalyptus sp. dengan komponen utama 1,8 cineole secara empiris telah lama digunakan untuk mengobati faringitis, bronkitis, sinusitis, asma dan Chronic Obstructive Pulmonary Disease (Agustina and Suharmiati 2017)

CONCLUSION

Based on the results of a literature study related to pengaruh steam inhalation therapy administration of breath patterns can be concluded: The results of the literature review in 2 articles showed that there was an increase in the pattern of breathing before and a decrease in the pattern of breathing after the administration of steam inhalation therapy with Gotu Kola Essential Oil (*Centella Asiatica*). The results of the literature review in 2 articles showed that there is an effect of steam inhalation therapy with Gotu Kola Essential Oil (*Centella Asiatica*) on breathing patterns because eucalyptus oil contains eucalyptol (cineole) which can thin phlegm, relieve breathing, anti-inflammatory and reduce the average exacerbation. It can be concluded that in both articles, The results obtained are the effects of steam inhalation therapy with Gotu Kola Essential Oil (*Centella Asiatica*) on the ineffectiveness of breathing patterns in children.

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