


The effect of pilis therapy on reducing headaches (Chepalgia) in postpartum mothers at the Niar clinic, Timbang Deli regency, Medan Amplas district in 2023

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Article Info	ABSTRACT
Keywords: Pilis Therapy, Headache (Chepalgia) in Postpartum Mothers	Headaches that occur in postpartum mothers can have a negative impact on the baby if not addressed, namely reducing the quality of life, reducing the ability to do activities and reducing the ability to care for the baby. Management of headaches in postpartum mothers can be overcome pharmacologically and non- pharmacologically. Non-pharmacological treatment includes traditional medicine, namely the use of pilis therapy applied to the forehead of puerperal mothers. The purpose of this study was to analyze the effect of pilis therapy on reducing headache (Chepalgia) in puerperal mothers. This type of research is quantitative research using Experimental Research with a Pre-experimental research design using a one group pretest posttest only design design. The population in this study was all postpartum mothers who gave birth at the Niar Clinic, Timbang Deli Regency, Medan Amplas District. The sampling technique in this study used accidental sampling by meeting the inquisition criteria of 20 people. The data collection method uses observation sheets. The statistical test used in this study is the Wilcoxon Rank Test. The results of this study are known to have differences before and after pilis therapy in postpartum mothers. The results of the Wilcoxon Rank Test analysis obtained a p-value of $0.00 < 0.05$ which means that there is an effect of pilis therapy on reducing headaches (Chepalgia) in postpartum mothers at the Niar Clinic, Timbang Deli Regency, Medan Amplas District. The conclusion of this study shows that there is an effect of pilis therapy on reducing headaches (Chepalgia) in postpartum mothers at the Niar Clinic, Timbang Deli Regency, Medan Amplas District. So it is expected that the community will continue to apply pilis therapy regularly after giving birth to postpartum mothers who experience headaches (Chepalgia).
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INTRODUCTION

The puerperium period is the period after labor and birth of the baby, placenta, and membranes needed to restore the uterine organs as before pregnancy with approximately six weeks (Purwanto S.T, Nuryani, Rahayu P.T, 2018). In addition, during the puerperium a mother also still feels pain in several parts of the body, one of which is headaches. Therefore, appropriate care measures are needed at this time, so that the mother's body

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condition can recover. Various physical health problems that can arise during the puerperium, one of which is headaches. (Rahayuningsih, 2021).

According to data from the World Health Organization (WHO), 2018, about 90% of the adult population has experienced at least one headache in one year. Several studies involving surveys of pregnant women according to Riskesdes, 2017 showed that about 16% of postpartum mothers experienced headaches. It is estimated that 1 in 5 in postpartum mothers experience headaches.

The results of the Riskesdes survey, 2018 showed that as many as 40% of women complained of headaches after giving birth. Usually, this condition occurs in the first 6-8 weeks after the delivery process. The sensation of headaches that are felt varies, can be like pressure, tension, puncture or throbbing, and can be felt all over the head or only on one side (Ministry of Health RI, 2018).

Headache (Chepalgia) is the most common nervous system disorder experienced by the community, one of which is in puerperal mothers. Headache is an uncomfortable sensation experienced in the head area which includes the face and neck area. Headaches that occur in postpartum mothers can have a negative impact on the baby if not addressed, namely reducing the quality of life, reducing the ability to do activities and reducing the ability to care for the baby. (Noorlinda, 2021).

After giving birth the hormone estrogen in the body can decrease significantly, a decrease in hormone levels can trigger headaches, there are several things that can trigger headaches after childbirth, including fatigue, lack of sleep, dehydration due to lack of drinking while breastfeeding, side effects of anesthetics used during childbirth, environmental factors, such as too cold air, sudden cessation of caffeine consumption (caffeine withdrawal) and postpartum depression. Complaints of headaches in the front and on both sides of the head can occur due to the restoration of fluid and electrolyte balance. Severe headaches can occur due to regional anesthesia, pain will be more pronounced when standing and will be reduced when lying down (Handayani E & Pujiastuti W, 2016).

Headaches after childbirth are a sign of health problems, ranging from mild, such as allergies to sinusitis, to severe, such as preeclampsia, meningitis, and blockage of veins in the brain. Management of headaches in postpartum mothers can be pharmacological and non-pharmacological. Non-pharmacological treatment includes traditional medicine, acupuncture, acupressure, relaxation, guided imagination, and psychotherapy (Sulistyantoningrum, 2017).

Traditional medicine is a material or herb in the form of plant materials, animal materials, mineral materials, serial preparations (galenic) or mixtures of these materials that are traditionally used for treatment and can be applied in accordance with the normal prevailing in society. Some traditional medicines used after childbirth are taken and some are used as external medicine (applied topically). The following will mention various types of medicinal plants used as external medicine, namely pilis applied to the forehead of puerperal mothers.

Pilis is a traditional concoction of natural ingredients used in postpartum mothers. Pilis is believed to help relieve headaches and also improve blood circulation. The use of pilis in the community has begun to be abandoned, it is proven that public acceptance of pilis is low at 11.3%. Many postpartum mothers, especially those living in urban areas, no longer use pilis due to lack of knowledge about the benefits of pilis. In addition, enthusiasts in using pilis are also reduced because of the impractical and non-fashionable way of using it. Pilis must be applied to the forehead after the postpartum mother finishes bathing, the color of the pilis is also striking so that it makes the postpartum mother less confident to wear it. Even though there are many benefits of using pilis, including to relieve dizziness caused by fatigue during labor (Faudi, 2017).

In line with research by Rahayu (2020) and Safari Fifi (2022) that pilis therapy is effective enough to reduce headaches by doing pilis therapy regularly for 1 week with the time needed morning and evening and making habits for postpartum mothers will have a positive impact on postpartum mothers to reduce headaches that they may experience.

Based on an initial survey conducted by researchers on March 20, 2023 at the Niar Clinic, Timbang Deli Regency, Medan Amplas District, data on mothers who gave birth in March 2023 were 17 people who gave birth. Based on the results of a survey at the Niar Clinic of Timbang Deli District, Medan Amplas District, researchers found 3 postpartum mothers who had just given birth, 2 of whom used pilis therapy and 1 postpartum mother did not use pilis therapy. Then researchers conducted interviews with postpartum mothers who used pilis therapy said they felt headaches after childbirth and then the benefits felt after using pilis therapy were reduced headaches, eye vision became clear and 1 postpartum mother who did not use pilis therapy said they did not like the distinctive smell of pilis, to reduce headaches experienced by taking drugs given by midwives. This problem was raised by the researcher as a problem in this study and had never been done before pilis therapy at the clinic.

METHODS

This type of research is quantitative research using Experimental research is a study by conducting an experimental activity (experiment), which aims to determine the symptoms or influences that arise, as a result of certain treatments or experiments called (Notoadmodjo, 2020). This research design uses a Pre-experimental design. The type used in this study was one group pretest-posttest only design. This design does not use a comparison group (control), but at least an initial observation (pretest) has been carried out which allows testing changes that occur after the experiment (program). The form of this design is as follows:

Table 1 One Group Pretest-Posttest Research Scheme

Group	Pretest	Treatment	Posttest
Treatment	O1	X	O2

Information:

O1 : Initial measurement before treatment (pretest)

- X : Treatment (Pilis Therapy)
O2 : Second measurement after treatment (posttest)

This study was conducted at the Niar Clinic of Timbang Deli District, Medan Amplas District, the reason researchers chose this location was because there were problems where postpartum mothers experienced headaches, sufficient population, there were supporting references, locations that were easy to reach and as far as the knowledge of researchers had never conducted research on the effect of pilis therapy on reducing headaches (Chepalgia) in postpartum mothers. This research starts from submitting the title, initial survey, preparing research proposals to the final research session which is carried out from February to August 2023.

The population in this study was all postpartum mothers who gave birth at the Niar Clinic, Timbang Deli Regency, Medan Amplas District. The sample in this study is a portion taken from the entire object studied and is considered representative of the entire population (Notoatmodjo, 2020). The sampling technique in this study is accidental sampling, which is a haphazard sampling technique, without careful design, who the researcher found was taken as a sample. However, when conducting the study, the samples obtained were 20 postpartum mothers who gave birth at the Niar Clinic, Timbang Deli Regency, Medan Amplas District, which met the criteria.

Inclusion criteria are criteria or characteristics that must be met by each member of the population that can be taken as a sample. Here are some inclusion criteria in this study, namely:

1. Willing to be a respondent
2. Willing to use pilis therapy
3. Postpartum mothers who have their first and second children
4. Mother nifas the partus first day

The sample in this study was postpartum mothers who met the inclusion criteria at the Niar Clinic, Timbang Deli Regency, Medan Amplas District. The procedure that will be carried out in collecting data is to apply for permission to the Nursing Study Program of Hajj University of North Sumatra. Then apply for permission to the person in charge of the Niar Clinic, Timbang Deli Regency, Medan Amplas District, then research data collection is carried out. Researchers explain the purpose, objectives, procedures, benefits as well as agree on the schedule for conducting research. Then the researcher begins by determining the research sample according to the number and method of sampling that has been determined. Researchers carried out delivery techniques using respondent observation sheets. All data to be obtained through observation are collected and then examined.

Before the study, researchers visited the Niar Clinic where postpartum mothers gave birth then provided information to clients about the purpose, purpose, and benefits of the study the day before the study began and researchers continued the research at the home of each postpartum mother. Researchers ask respondents voluntarily for consent to become research subjects by signing a consent sheet (informant consent) and will be

included in the study. Conduct a pretest by measuring headaches in postpartum mothers using numeric rating scale observation sheets, namely no pain (score 0), mild pain (score 1-3), and moderate pain (score 4-6), controlled severe pain (7-9), and uncontrolled severe pain (score 10). Then explain how to use pilis therapy in postpartum mothers who follow a series of studies. Practice using pilis therapy applied to the forehead of postpartum mothers is done 1 time a day in at least 30 minutes for 1 week in a row. This therapy is carried out at the home of each postpartum mother in the afternoon after the postpartum mother bathes, this therapy is carried out regularly and monitored by researchers starting from the first study until the research is completed. Giving appreciation to respondents for being able to do pilis therapy and see the results on the last 7th day was carried out as a post-test data collection and data analysis.

Data analysis is an important step to obtain research findings. This is because, data will lead us towards scientific findings if analyzed properly. Univariate analysis was carried out to obtain a picture of each variable, seeing the frequency can be known by each description of each variable in this study is the initials of name, age, ethnicity, education, number of children. Analyzing headaches in postpartum mothers before and after pilis therapy at Niar Clinic, Timbang Deli Regency, Medan Amplas District. Data processing techniques in this study used the Wilcoxon Test. The Wilcoxon test was used to test the significant level of difference in participants' headache levels before and after pilis therapy. Bivariate analysis using the Wilcoxon Sign Rank Test because the data is not normally distributed with ordinal data scales. The Wilcoxon Sign Rank Test is usually used in Pre-Post Test design research.

RESULTS AND DISCUSSION

This research was conducted at the Niar Clinic of Timbang Deli Regency, Medan Amplas District which has a population of 134,285 people. The area is 11.19 km² and the density is 11,593/km². Strategic place and adequate respondents. Researchers took 20 postpartum mother respondents with a pretest-posttest design with the Accidental Sampling technique.

Demographic Data

Table 2. Frequency Distribution of Respondents' Characteristics Based on Age, Ethnicity, Education and Number of Children at Niar Clinic, Timbang Deli Regency, Medan Amplas District in 2023

Demographic Data	Frequency	Percentage %
Age		
18-24 Years	13	65%
25-31 Years	7	35%
Total	20	100%
Ethnicity		
Jawa	8	40%
Banten	1	5%
Mendailing	6	30%

Nias	1	5%
Melayu	4	20%
Total	20	100%
Education		
SD	3	15%
SMP	5	25%
SMA	10	50%
S1	2	10%
Total	20	100%
Number of Children		
First Child	11	55%
Second Child	9	45%
Total	20	100%

The characteristics of respondents are seen based on the distribution of respondents according to initials name, age, ethnicity, education, number of children. The data of this study the characteristics of respondents according to age are classified in the age of 18-24 years as many as 13 people with a percentage of 65%, while the age of 25-31 years as many as 7 people with a percentage of 35% and the characteristics of respondents based on ethnicity are classified in Javanese tribes as many as 8 people with a percentage of 40%, Banten tribes as many as 1 person with a percentage of 5%, Mendailing tribes as many as 6 people with a percentage of 30%, Nias tribe as many as 1 person with a percentage of 5%, while Malay tribe as many as 4 people with a percentage of 20% and the characteristics of respondents based on education are elementary school as many as 3 people with a percentage of 15%, junior high school education as many as 5 people with a percentage of 25%, high school education as many as 10 people with a percentage of 10% and characteristics based on the number of children are the first child as many as 11 people with a percentage of 55% While the second child as many as 9 people with a percentage of 45%.

Respondent-Specific Data

After the data test was carried out, it was known that the data was normally distributed, so that in analyzing the data using parametric tests, namely by using the Wilcoxon Rank Test to determine the effect of pilis therapy on reducing headaches (Chepalgia) in postpartum mothers at the Niar Clinic, Timbang Deli Regency, Medan Amplas District.

Table 3. Distribution of the frequency of decreased headache (chepalgia) before pilis therapy in postpartum mothers

Chepalgia Category	Frequency	Percentage%
Mild pain	8	40%
Moderate pain	12	60%
Total	20	100%

Based on table 3 above, it can be explained that headaches (Chepalgia) in respondents before being given pilis therapy with the highest amount of moderate pain as many as 12 people (60%).

Table 4. Distribution of the frequency of decreased headache (chepalgia) after pilis therapy in postpartum mothers

Chepalgia Category	Frequency	Percentage%
No Pain	9	45%
Mild pain	11	55%
Total	20	100%

Based on table 4 above, it can be explained that headaches (Chepalgia) in respondents after being given pilis therapy with the highest amount of mild pain as many as 11 people (55%)

Table 5. Results of Wilcoxon Rank Test Analysis The Effect of Pilis Therapy on Reducing Headaches (Chepalgia) in Postpartum Mothers

Result	Mean	Std.Deviation	p-value
Before	3.75	1.070	
After	.70	.733	0,00

Based on table 5 above, it can be explained that the level of headache (Chepalgia) before and after pilis therapy, obtained $p = 0.00$. If the $p\text{-value} \leq 0.005$, it can be concluded that there are changes in headache (Chepalgia) before and after pilis therapy. From the results of the Wilcoxon Rank Test statistical test, a $p\text{-value}$ of $(0.00) \leq (0.005)$ was obtained, meaning that H_1 was accepted, which means that there is an effect of pilis therapy on reducing headaches (Chepalgia) in postpartum mothers at the Niar Clinic, Timbang Deli Regency, Medan Amplas District in 2023.

Discussion

Identification of the Level of Headache (Chepalgia) Before Pilis Therapy for Postpartum Mothers at Niar Clinic, Timbang Deli Regency, Medan Amplas District

From the results of a study of 20 respondents at the Niar Clinic, Timbang Deli Regency, Medan Amplas District, it can be known the level of headaches (Chepalgia) in respondents before being given pilis therapy with the highest amount of mild pain as many as 8 people (40%), moderate pain as many as 12 people (60%), this is from the interview results of the majority of postpartum mothers stated that after childbirth experienced headaches due to fatigue, And blurred vision and nausea, from this condition postpartum mothers often wake up at night, lack of sleep due to headaches felt. Some postpartum mothers also say it is difficult to do activities, limited to caring for their babies when headaches arise even to nausea and want to fall while walking.

This is in accordance with Safari Fifi's research (2022) entitled Utilization of Fragrant Pilis and Postpartum Herbal Medicine as Traditional Therapy for Postpartum Care in the Anugrah Binjai Clinic Work Area. Shows that the level of headache (Chepalgia) before

being given fragrant pilis therapy and herbal medicine is high enough to result in postpartum mothers being unable to care for their babies.

Some postpartum mothers in the Anugrah Binjai Clinic Working Area stated that they experienced fatigue which resulted in not being able to care for their babies, as well as the effects of the absence of postpartum maternal care, postpartum mothers also said that they experienced prolonged dizziness and nausea after giving birth making it difficult to adapt to changes during their puerperium that had an impact on the process of breastfeeding their babies.

Based on the description above, researchers argue that pilis therapy is very necessary to maintain the physiological and psychological conditions of postpartum mothers to make it easier for postpartum mothers to carry out activities.

Identification of the Level of Headache (Chepalgia) After Pilis Therapy to Postpartum Mothers at Niar Clinic, Timbang Deli Regency, Medan Amplas District

From the results of a study of 20 respondents at the Niar Clinic, Timbang Deli Regency, Medan Amplas District, it can be known the level of headache (Chepalgia) in respondents after being given pilis therapy with the highest amount of mild pain as many as 11 people (55%), no pain as many as 9 people (45%). There are changes in decreasing headaches (Chepalgia) and postpartum mothers so that postpartum mothers can carry out daily activities including being able to care for their babies, this is due to physiological and psychological factors becoming relaxed, the mind becomes calm and comfortable.

Pilis therapy was carried out for 7 consecutive days, in this study the determination of the calculation of the pre-test headache (Chepalgia) was carried out on the first day of the study, as well as teaching the stages of using pilis therapy, the measurement of post test headache (Chepalgia) was carried out on the 7th day of the study. The time of this pilis therapy is for 30 minutes and is given once a day in the afternoon after bathing.

This is in accordance with Safari Fifi's research (2022) entitled Utilization of Fragrant Pilis and Postpartum Herbal Medicine as Traditional Therapy for Postpartum Care in the Anugrah Binjai Clinic Work Area. After being given fragrant pilis and herbal medicine for 2 weeks, there were results of the study, there were changes in postpartum mothers who said dizziness and nausea disappeared and could carry out daily activities, including caring for their babies, because fragrant pilis and herbs worked by giving a warm feeling on the forehead of postpartum mothers and neutralizing nausea.

Based on the explanation of the results of the study above, researchers argue that pilis therapy is one of the therapies that can reduce headaches (Chepalgia) by producing a feeling of warmth on the forehead of postpartum mothers and aroma therapy that can make the body relaxed and comfortable. And most of the levels of headaches (Chepalgia) after being given pilis therapy also experienced a significant decrease.

The effect of pilis therapy on reducing headaches (chepalgia) in postpartum mothers at the Niar Clinic, Timbang Deli Regency, Medan Amplas District

Based on the results of the Wilcoxon Rank Test, researchers proved there was a change in headache (Chepalgia) with the results showing headache (Chepalgia) before being given pilis therapy with the highest amount of moderate pain as many as 12 people,

mild pain as many as 8 people. After being given pilis therapy, there was a decrease with the highest amount of mild pain as many as 11 people, no pain as many as 9 people with a p value obtained of 0.00 and a level of meaning of $\alpha = 0.05$. From the results of research and conducting other trials there are changes before and after, that pilis therapy is quite effective in reducing headaches (Chepalgia) in postpartum mothers. So it can be concluded that there is an effect of pilis therapy on reducing headaches (Chepalgia) in postpartum mothers at the Niar Clinic, Timbang Deli Regency, Medan Amplas District.

In line with Safari Fifi's research (2022) that the use of fragrant pilis and herbal medicine in postpartum mothers is quite effective in reducing dizziness caused by fatigue, relieving nausea, the aroma can be relaxing and comfortable, and postpartum mothers can carry out daily activities such as caring for their babies and providing enough milk to their babies without any physical complaints. By doing pilis therapy regularly for 7 days and making it a habit for postpartum mothers to use pilis therapy and can reduce headaches, eliminate nausea, clear eye sight and make the body more relaxed.

Research Limitations

The limitation in this study is that this study can only use research with one group only, namely the intervention group where in this study researchers cannot conduct research using two groups such as the intervention group and the control group, this is due to the limited research time.

CONCLUSION

Based on the results of research that has been conducted and described, researchers can provide the following conclusions: There is a decrease in headache (Chepalgia) before pilis therapy the majority experience moderate pain, There is a decrease in headaches (Chepalgia) after being given pilis therapy the majority experience mild pain, There is an effect of pilis therapy on reducing headaches (Chepalgia) in postpartum mothers at Niar Clinic, Timbang Deli Regency, Medan Amplas District with Value p-value (0.00) < α (0.05). It is expected that the person in charge of the clinic at the Niar Clinic, Timbang Deli Regency, Medan Amplas District, can apply pilis therapy to postpartum mothers who experience headaches (Chepalgia) to overcome headaches caused by postpartum fatigue in all postpartum mothers who give birth at the Niar Clinic, Timbang Deli Regency, Medan Amplas District.

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