

Article

Efficacy of Pericardium 6 Acupressure in Reducing Nausea and Vomiting in First Trimester Pregnant Women

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A B S T R A C T

This study investigates the effect of acupressure on the pericardium 6 (PC6) point in reducing nausea and vomiting among pregnant women during the first trimester. Utilizing a pre-experimental design with a one-group pretest-posttest approach, the research was conducted with 85 pregnant women from the Mamboro Health Center area. A consecutive sampling technique was used to select a sample of 15 respondents. The study employed the Pregnancy-Unique Quantification of Emesis Nausea (PUQE-24) questionnaire to measure nausea and vomiting severity. Results showed that prior to acupressure treatment, 80% of participants experienced moderate nausea and vomiting, while 20% had mild symptoms. Following the application of PC6 acupressure, 80% of participants reported mild symptoms, and only a moderate category remained. The Wilcoxon test yielded a p-value of 0.003, indicating a statistically significant reduction in symptoms ($p < 0.05$). The findings suggest that acupressure on the pericardium 6 point effectively reduces nausea and vomiting in pregnant women during their first trimester in the Mamboro Health Center area.

I. INTRODUCTION

The initial process of pregnancy, which is the adjustment period, will be experienced by pregnant women in the first trimester. The physical and psychological changes felt by pregnant women will have an impact on their health, both mild and severe. In early pregnancy, frequent changes are nausea and vomiting (Nugrawati & Amriani, 2021). Nausea and vomiting (morning sickness) are normal symptoms and are often found in the first trimester of pregnancy (Rosalinna, 2019). The incidence of nausea and vomiting in young pregnant women must be treated immediately using pharmacological methods, namely taking medication and non-pharmacological methods, namely complementary therapies such as acupressure (Rohmayanti et al., 2022). If nausea and vomiting are ignored, the mother's physical condition will become weak because the nausea and vomiting will become more severe, which is called hyperemesis gravidarum. Pregnant women who constantly vomit what they eat will cause the mother's body to become weaker, pale, and the frequency of urination decreases drastically so that body fluids decrease and blood becomes thick (hemoconcentration) (Mulyandari & Alvina, 2022).

Data show that the incidence of nausea and vomiting in pregnant women in the first trimester is 14.8% of all pregnancies, complaints of nausea, 60-80% of cases in primigravidas and 40-60% in multigravida (Ministry of Health of the Republic of Indonesia, 2015). Based on 2021 data from pregnant women from the Central Sulawesi Provincial Health Office, the number of pregnant women in Palu City is 6,361 people, including 14 health centers in Palu City. The highest number of K1 visits throughout 2021 was 110.8% among various districts/cities in Central Sulawesi Province (Central Sulawesi Provincial Health Office, 2021). Then, based on data on pregnant women in 2021, the Palu City Health Office, the achievement of health services for pregnant women in Palu City when viewed from the sub-district area is the highest K1 coverage in Palu City at 99.41% in North Palu District and the lowest at 94.20% in Tatang District (Palu City Health Office 2021).

One of the actions to reduce or reduce nausea and vomiting in pregnancy is to do acupressure (Maynitasari, 2022). Acupressure on the pericardium point 6 which is done by pressing three fingers under the wrist is an action to reduce or reduce nausea (Fithriana et al., 2016). Results of the research conducted (Gahayu & Ristica, 2021) has proven that acupressure at the Nei Guan point (pericardium 6) is effective in reducing nausea and vomiting in pregnant women in the first trimester, in addition to this action can stimulate the release of the hormone cortisol. This hormone functions to increase the body's metabolism so that the nausea and vomiting felt can be reduced. Another study proved that there was a significant difference in reducing nausea and vomiting with complementary acupressure therapy at Perikardium Point 6 in treating nausea and vomiting in pregnancy at the Bekonang village health polyclinic (Maheswara and Christiani, 2022). The purpose of this study is to find out whether there is an effect of pericardium 6 on the reduction of nausea and vomiting in pregnant women in the first trimester in the working area of the Mamboro Health Center.

II. METHODS

This research is a quantitative research using the Pre-Experimental Design research method where the design form used is The One Group Pretest-Posttest Design. The research period starts from July 28-August 12, 2023. The research was carried out in the work area of the Mamboro Health Center. The population in this study is 85 pregnant women in the first trimester who experience nausea and vomiting and the number of samples in this study is 15 pregnant women. The sampling technique is consecutive sampling. The independent variable in this study is acupressure at pericardium point 6. The dependent variable was a reduction in nausea and vomiting in pregnant women in the first trimester. The data collection technique was to conduct a pre-test by measuring the level of nausea and vomiting using a questionnaire, then teach the respondents

how to apply pressure to the pericardium point 6 and tell them how to do this for 7 minutes in the morning and anytime they feel nauseous. The use of Whatsup Group is useful to support in ensuring that respondents perform acupressure on pericardium point 6. On day 5, the level of nausea and vomiting was re-evaluated. The questionnaire measures mild nausea and vomiting if the nidex PUQE value = 3-6, moderate if the nidex PUQE value = 7-12 and severe if the nidex PUQE value = 13-15. The analysis in this study uses the Wilcoxon test.

III. RESULT

Table 1. Frequency distribution by age and parity of pregnant women in the working area of the Puskesmas Mambo

Variable	Frequency	Percentage (%)
Age (Years)		
<20	1	6.7
20-35	10	66
>35	4	26
Parity		
Primigravida	2	13.3
Multigravida	13	86,7

Source: Primary Data 2023

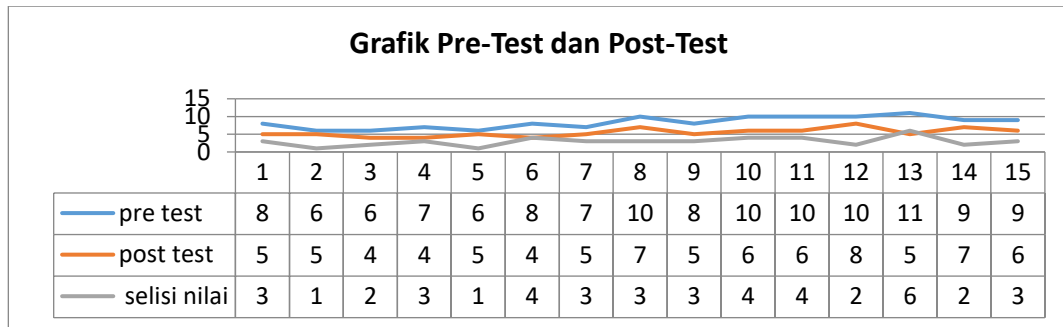
Based on table 1, it shows that the highest percentage of respondents is 23 years old, namely 3 people (20%), and the highest percentage of respondent parity is category 2, namely 7 people (46.7%).

Table 2. Distribution of frequency of nausea and vomiting among pregnant women in the working area of the Health Center Mambo.

Variable	Pre-Test		Post-Test	
	F	%	F	%
Mild nausea and vomiting	3	20.0	12	80.0
Moderate nausea and vomiting	12	80.0	3	20.0

Source: Primary Data 2023

Based on table 2, it shows that the highest percentage of nausea and vomiting (Pretest) is in the category of moderate nausea and vomiting, which is 12 people (80%) and the highest percentage of nausea and vomiting (Posttest) is in the category of mild nausea and vomiting, which is 12 people (80%).



Graph 1: Decrease in nausea and vomiting

Table 3. Analysis of the effect of pericardium 6 on the reduction of nausea and vomiting in pregnant women in the first trimester in the working area of the Mamboro Health Center.

	Rank	N	Mean	Average Rating	Number Ranks	of	P-value
Pretest- Posttest	Negative Rating	9a	8,33	5.00	45.00		0.003
	Positive Rating	0b	5,47	.00	.00		
	Bond	6c					
	Entire	15					

Source: Primary Data 2023

Table 3 shows the results of statistical analysis using the Wilcoxon test which obtained a negative rating value of 9, namely there were 9 respondents who experienced a decrease in nausea and vomiting after being given pericardium acupressure 6. Then the positive rating value is 0, namely there are 0 respondents who experience an increase in nausea and vomiting. Then the Ties value of 6 is that there are 6 people who do not experience a decrease or increase in nausea and vomiting after being given pericardium 6. $p\text{-value} = 0.003 < 0.05$, so H_0 is rejected. The conclusion was that there was a difference in nausea and vomiting before and after pericardium 6. Or it can be interpreted that there is an effect of pericardium 6 on the reduction of nausea and vomiting in pregnant women in the first trimester in the Mamboro Health Center work area.

IV. DISCUSSION

Nausea and vomiting in pregnant women often occur at the beginning of pregnancy or called emission gravidarum, which is a form of discomfort felt by mothers in the first trimester. The symptoms felt vary greatly both in terms of duration and severity. The results showed that the majority of 20-30 years old experienced nausea and vomiting in the moderate category (average score of 8.6). Age and parity factors greatly affect the pregnancy process. The safe age for pregnancy and childbirth is 20 - 35 years old. Pregnancy at the age of less than 20 years, the condition of the reproductive organs, especially the small pelvis and uterus, is still small and has not grown optimally, so in the process of pregnancy adaptation there are more problems, including nausea and vomiting. Nausea and vomiting that occur at the age of less than 20 years are caused by a lack of maturity in the mental, physical, and social functioning of pregnant women. At the age of over 35 years, the condition of the reproductive organs and their physiological functions decreased compared to the mental condition of women aged 20-35 years (Manuaba, 2017).

There are hormonal changes that occur at the beginning of pregnancy in pregnant women, namely increased levels of estrogen and HCG (Human Corionic Gonadotropin) hormones in

serum, as well as the hormone progesterone which causes nausea and vomiting at the beginning of the first trimester which can cause discomfort in pregnant women (Retnoningtyas and Dewi, 2021). Lack of attention or delay in treatment will have a negative effect on the mother and fetus. Treatment that can be done to overcome nausea and vomiting can be done with pharmacological treatment in the form of giving antihistamines and prokinetic agents that are safe and effective as an initial treatment for treating nausea and vomiting including acupressure, acupuncture, ginger consumption therapy (Festin, 2014; Stanisiere, Mousset and Lafay, 2018; Nurulicha, Nengsih, 2020).

The evaluation carried out after the 5th day found that the nausea and vomiting experienced by pregnant women were in the mild category with a mean value of 5.47, a decrease in nausea and vomiting with a difference in $\pm$ value of 3, there were 6 respondents who experienced a decrease in nausea and vomiting but still in the same category, This was caused by inaccurate pressure both in terms of pericardial points and duration of pressure. In addition, the frequency of pressure applied by pregnant women affects the nausea and vomiting they experience.

Point 6 pericardium acupressure is a non-pharmacological technique that can be easily done and the effect on the respondent is not excessive because when doing acupressure on point 6 pericardium you only need to touch point 6 pericardium. Pressure at this point can stimulate the release of the hormone cortisol as a physiological effect. It serves to increase the body's metabolism so that nausea and vomiting can be reduced. The results of the research were carried out at the Satria Health Center, Tebing Tinggi City and PMB Suparsih Amd. Keb Masaran has proven that there is an effect of acupressure therapy by reducing the frequency of nausea and vomiting experienced by pregnant women in the first trimester (Rezeki and Safrina, 2021; Handayani, 2022)

Research conducted by (Hasibuan & Martin, 2021) It proves that acupressure on pericardium 6 has been shown to reduce and reduce nausea and vomiting in pregnancy. Another function is to be able to stimulate, activate the regulatory system as well as the endocrine and neurological mechanisms for the hypothalamus to work so that it releases endorphins that provide a feeling of relaxation. It is very important to teach pregnant women early in their pregnancy, by practicing this massage can help mothers overcome the discomfort they feel.

The results of the study prove that massage at point P6 affects the balance of estrogen levels and prevents the accumulation of toxic substances, in addition to stimulating and regulating the body, increasing blood flow and lymph nodes, so that oxygen, nutrients and food waste are effectively carried to the body tissues. and placenta so that it helps the pregnancy process run well (Parapat et al., 2023).

V. CONCLUSION

The conclusion is that there is an effect of pericardium 6 on the reduction of nausea and vomiting in pregnant women in the first trimester in the Mamboro Health Center work area. It is hoped that health workers at the Mamboro Health Center will apply pericardial 6 acupressure as an alternative to reduce nausea and vomiting in pregnant women in the first trimester.

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