


Acupressure At Pericardium Point 6 On The Reduction Of Nausea And Vomiting In Pregnant Women In Trimester 1 At Puskesmas Oesapa

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Article Info	ABSTRACT
Keywords: Acupressure, Pericardium 6, Excessive Nausea and Vomiting, Pregnant Women 1st Trimester, Oesapa	During the first trimester most pregnant women experience excessive nausea and vomiting. Therapy to reduce excessive nausea and vomiting in first trimester pregnant women is acupressure therapy at pericardium point 6. The purpose of this study was to determine the action of acupressure at pericardium point 6 on reducing excessive nausea and vomiting in first trimester pregnant women at the Oesapa health center. This study used a qualitative approach with a type of case study research with a descriptive research design. The results of the study, before acupressure action was taken, nausea vomiting in Mrs. M was severe nausea vomiting (18), and Mrs. D was severe nausea vomiting (20). After acupressure for 3 days, the results decreased, in Mrs. M became moderate nausea and vomiting (15), in Mrs. D became moderate nausea and vomiting (16). In conclusion, acupressure action at pericardium point 6 can reduce excessive nausea and vomiting in first trimester pregnant women. It is hoped that patients and families can apply acupressure therapy to reduce excessive nausea and vomiting in first trimester pregnant women.
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INTRODUCTION

The World Health Organization (WHO) defines pregnancy as a process that lasts nine months until a woman gives birth to a developing fetus in her womb. Pregnancy is a natural physiological process, but it comes with risks. Pregnancy results in complaints that will be experienced by pregnant women, one of which is Hyperemesis gravidarum (excessive nausea and vomiting). Nausea and vomiting are the result of changes in the endocrine system that will occur during pregnancy due to the increase in the HCG (Human Chorionic Gonadotropine) hormone. Nausea and vomiting usually begin in the first week of pregnancy and will end in the fourth month of pregnancy and if not handled properly, complaints of nausea and vomiting will last throughout pregnancy called Hyperemesis Gravidarum. and, a small percentage of pregnant women cannot overcome nausea and vomiting that continues to interfere with activities and cause disruption of electrolyte balance due to fluid deficiency. (Parapat, Tarigan & Simanjuntak., 2023).

Nausea and excessive vomiting in pregnant women is a pathological condition if not treated properly. One of the non-pharmacological treatments to reduce nausea and excessive

vomiting can be acupressure. Giving acupressure using pericardium point 6 which is located approximately 3 fingers above the fold of the hand. Nausea and excessive vomiting in pregnancy can have a serious impact on the mother and fetus. The often adverse impact on the fetus due to severe vomiting is premature birth and low birth weight (LBW). One way that can be done to reduce complaints of excessive nausea and vomiting in pregnant women is the Acupressure Technique (Lestari et al., 2022)

Acupressure is one of the complementary treatments with acupuncture by applying pressure on certain points on the body. In Chinese medicine, pericardium point 6 is considered effective in reducing symptoms of excessive nausea and vomiting (Lestari et al., 2022). The results of the research by Tanjung et al stated that there was an effect of Acupressure at Pericardium point 6 on the Intensity of Nausea Vomiting in Trimester I Pregnant Women. This is in accordance with the Gate control theory which explains that stimulation of one acupoint on a meridian path will be forwarded by large diameter A-Beta fibers to the spinal cord which then in the spinal cord there is a gelatinous substance that works as a "Gate Control" before being forwarded by afferent nerve fibers to transmitting cells, transmitting cells to the central nervous system to reduce feelings of discomfort, relaxation and reduce nausea (Sari, Kurniyati & Esmianti., 2023)

The prevalence of nausea and vomiting in Indonesia is ranging from 1-3% of all pregnancies, one of which is in East Java Province in 2016 by 10-15% of the total number of pregnant women as many as 183,645 people, in Surabaya by 24% and in West Java by 13%, in South Sulawesi in 2018 by 62.99% and Aceh Province (9.1%). While data on nausea and vomiting in pregnant women in North Sumatra Province, based on the results of central level data, as much as 59%. and for Medan City, the rate of hyperemesis Gravidarum still reaches 35% (Parapat, Tarigan & Simanjuntak., 2023).

According to the Kupang City Health Office report shows that in 2022 the number of first-visit pregnant women (K1) in the city of Kupang was 8,221 people, specifically in the Oesapa health center there were 1,585 pregnant women, this made the Oesapa health center one of the health centers with the highest number of pregnant women in the city of Kupang (Kupang City Health Office 2022). The results of research by Dina Melanieka, Siti Nur Asya and Jamillah Ahmad in 2019 in kupang city, stated that as many as 68.3% of pregnant women experienced emesis. 92.7% were 20-35 years old and 7.3% were less than 20 years old.

METHODS

The type and design of research used is qualitative. The research design uses *descriptive case studies*. This case study research is a study to explore how acupressure therapy at pericardium point 6 decreases excessive nausea and vomiting in 1st trimester pregnant women at the Oesapa Health Center. Observation was carried out for 3 days with a qualitative approach to two patients of 1st trimester pregnant women who experienced nausea and vomiting problems.

The subjects in this case study were two patients (two cases) of 1st trimester pregnant women who experienced excessive nausea and vomiting in 1st trimester pregnant women and conducted examinations at the Oesapa health center as research subjects who fit the

inclusion criteria, namely, the general characteristics of research subjects from an affordable target population and will be studied.

1. First trimester pregnant women
2. Pregnant mothers with excessive nausea and vomiting
3. Pregnant mothers who can read
4. Cooperative pregnant women
5. Willing to be a study subject and fill out *informed consent*

The focus of this case study is to perform acupressure action on pericardium 6 to reduce excessive nausea and vomiting in first trimester pregnant women. The instruments used in this study was ANC assessment format *Rhodes Index Of Nausea Vomiting And Retching (INVR)* questionnaire

Data collection in this case study is by interview, observation and document study.

Data analysis is carried out by stating facts, then comparing with existing theories and then pouring in discussion opinions. The analysis technique used by narrating the answers of the case study subjects obtained from the interpretation of in-depth interviews conducted to answer the formulation of research problems. The analysis technique is used by means of observation by researchers and documentation studies that produce data to be further interpreted by researchers compared to existing theories as material to provide recommendations in the intervention. Data presentation can be done with tables, pictures, charts, or narrative text. Confidentiality of the respondents was guaranteed by obscuring the identity of the respondents.

RESULTS AND DISCUSSION

Research Results

Characteristics of pre-research subjek

The subjects in this study were 2 patients, namely pregnant women in trimester 1 (gestational age 0-14 weeks), who were patients at the Oesapa health center and conducted examinations at the KIA poly (Maternal and Child Health). The following is a description of the characteristics of the research subjects obtained in this study.

Table 4.1 Characteristics of research subjects

Characteristics	Research subject 1	Research subject 2
Name (initials)	Mrs.M	Mrs. D
Age	31 Years	32 Years
Marital status	Marry	Marry
Religion	Protestant Christianity	Catholic
Tribe/Nation	Timor	Flores
Last Education	HIGH SCHOOL	S1 Pharmacist
Jobs	Housewife	Housewife
Gestational age	11 weeks	11 weeks

- a. Levels before and after acupressure therapy

Table 4.2 Level of nausea and vomiting before acupressure therapy on Mrs. M and Mrs. D

No.	Date	Respondents	The degree of nausea and vomiting before acupressure therapy.	Description
1	February 1, 2024	Mrs.M	18	Severe nausea and vomiting
2	February 5, 2024	Mrs. D	20	Severe nausea and vomiting

Table 4.3 Level of nausea and vomiting after acupressure therapy on Mrs. M and Mrs. D

No.	Date	respondents	Value after acupressure therapy	Description
1.	February 3, 2024	Mrs.M	15	Moderate nausea and vomiting
2.	February 8, 2024	Mrs. D	16	Moderate nausea and vomiting

Table 4.3 above the results and application of acupressure therapy for 3 days obtained measurement of the level of nausea vomiting using the Rhodes index nausea vomiting and retching (INVR) questionnaire. before and after acupressure therapy. Obtained a decrease in the value of nausea vomiting management in Mrs. M with a value of 15 (moderate nausea vomiting), Mrs. D with a value of 16 (moderate nausea vomiting).

Table 4.4 differences in the level of nausea and vomiting before and after acupressure therapy on Mrs. M and Mrs. D

No.	Time	Mrs. M		Ket	Mrs. D		Ket
		Before	After		Before	After	
1	Meeting 1	18	18	Stay	20	19	Declining
2	Meeting 2	18	16	Declining	19	17	Declining
3	Meeting 3	16	15	Declining	17	16	Declining

Table 4.4 above shows the measurement using the Rhodes index nausea vomiting and retching (INVR) questionnaire, the results show that there is a change in the level of nausea and vomiting. At the third meeting the level of nausea and vomiting in Mrs. M and Mrs. D decreased from severe nausea and vomiting to moderate nausea and vomiting.

Discussion

The first characteristic is age. A healthy and safe reproductive age (not at risk) is 20 - 35 years, which is a productive age. At a healthy reproductive age most women can undergo pregnancy, childbirth, and postpartum in optimal conditions so that the mother and baby are healthy. Age 20 - 35 years the female reproductive organs have developed and functioned optimally so that it will reduce various risks when pregnant (Gunawan, 2010) in (Tanjung, Wari & Antoni., 2020).

The results of the research that have been carried out obtained the results of Mrs. M aged 31 years with severe nausea and vomiting, and Mrs. D aged 32 years with severe nausea and vomiting, both patients are at a safe age (not at risk) to get pregnant but both of them still experience severe nausea and vomiting. Researchers argue that age does not affect hyperemesis gravidarum in first trimester pregnant women because the results of the study found that both respondents were at a safe age (not at risk) to become pregnant but both respondents still experienced severe nausea and vomiting, this means that first trimester pregnant women both at non-risk age and at risk age can still experience nausea and vomiting.

This research is in line with research conducted by Mariantri, Y. Lestari, W. Arneliwati. (2014) which states that there is no relationship between the age of pregnant women and the incidence of emesis gravidarum with a p value of 0.225. The second characteristic is education. Education is a behavioral effort by means of persuasion, persuasion, appeal, invitation, providing information, providing awareness to a group of people or individuals. Education provides certain values for humans in opening their minds to accept new things and think naturally (Hertje, 2014) in (Tanjung, Wari & Antoni., 2020). The results of the case study research where the results of this study obtained Mrs.M with a high school education level with severe nausea and vomiting and Mrs.D with an undergraduate education level who experienced Hyperemesis gravidarum with severe nausea and vomiting.

Researchers argue that the level of education does not affect hyperemesis gravidarum in first trimester pregnant women because the results of the study found that both respondents were at the high school and undergraduate education levels, but both respondents still experienced severe nausea and vomiting, this means that first trimester pregnant women with both low and high education levels can still experience nausea and vomiting. The results of this study are also supported by the results of research conducted by (Aquari, 2017) mentioned that there was no significant relationship between education and the incidence of hyperemesis gravidarum in pregnant women at the Palembang social health center in 2017.

The third characteristic is employment. Emesis gravidarum is mostly experienced by housewives or pregnant women who do not work formally because respondents have more time to think about the condition of their pregnancy, more time getting information and experiences from friends, neighbors rather than from health workers or accurate sources of information. This condition will increase anxiety. Anxiety can also occur due to the absence of health insurance, saving funds for pregnancy care and financing the delivery process, the cost after childbirth also weighs on the minds of respondents. Economic limitations have an impact on the inability to fulfill quality nutrition with balanced nutrition so that pregnant women's nutrition is inadequate, health problems often occur due to low immunity, easily attacked by disease. This condition can cause decreased appetite, physical weakness and continue to be a balance disorder that causes nausea and vomiting. (Khayati et al., 2022)

The results of this case study research found that Mrs. M worked as a housewife with severe nausea and vomiting and Mrs. D also worked as a housewife with severe nausea and vomiting. The researcher believes that mothers who do not work or become housewives have

narrower social circles, less information and no friends to share experiences with, so that if there is a problem about their pregnancy, they cannot handle it and cause anxiety, which will trigger nausea and vomiting.

This research is in line with research conducted by (Khayati., 2022) who explained that the results of his research showed that the respondents who experienced the least emesis gravidarum were found in respondents who worked as civil servants and self-employed; because most mothers who have jobs tend not to have much time to think about their pregnancy. The amount of time devoted to work can divert concentration to think about her pregnancy so that anxiety in pregnant women tends to be more controllable.

The fourth characteristic is parity. According to (Sri Handayani, 2022) parity is categorized into 2 groups, namely: risk if (Mother gave birth to 1 or > 3 children) and not risk if (Mother gave birth to 2-3 children). According to Ramli (2020) Parity is a woman's condition related to the number of children born. Parity of the second and third child is the safest parity in terms of maternal mortality. High parity of more than 3 has a higher maternal mortality rate. Primigravida women, a small proportion have not been able to adapt to hormones and at an older age also tend to suffer more because the amount of hormones released is higher, and the history of previous pregnancies can also affect her current pregnancy.

The results of this case study research found Mrs. M with primiparous parity status with severe nausea and vomiting and Mrs. D with nulliparous parity status with severe nausea and vomiting, this shows that there is no significant relationship between parity and the incidence of hyperemesis gravidarum. Researchers argue that parity has no relationship with the incidence of hyperemesis gravidarum because not all primiparas or non-primiparas experience hyperemesis gravidarum and not all non-primiparas or primiparas do not experience hyperemesis gravidarum.

The results of this study are in line with research conducted by Annisa (2012), which states that there is no relationship between parity and the incidence of hyperemesis gravidarum. In this study primipara and nullipara both experienced hyperemesis gravidarum, this is not in accordance with the theory that hyperemesis gravidarum is more common in primigravida mothers than multigravida.

The results of measuring the level of nausea and vomiting in Mrs. M and Mrs. D before acupressure therapy.

Nausea and vomiting are a complex interplay of endocrine, digestive, vestibular, olfactory, genetic, and psychological influences. Endocrine factors are the strongest influences, especially Human Chorionic Gonadotropin (HCG). This hormone is produced by the young placental tissue so it increases in early pregnancy. The placenta will develop more rapidly in early pregnancy. HCG will also increase if there is abnormal proliferation of Corion epithelial tissue such as Corion carcinoma or nevus. Human Chorionic Gonadotropin (HCG) affects the increase of estrogen and progesterone hormone levels produced by the placenta serum increases. This increases the acidity of the stomach, which can stimulate nausea and vomiting in the mother (Harti et al, 2018).

The results showed that the level of nausea and vomiting of the research subjects before acupressure at pericardium point 6, which was measured using the Rhodes Index Of

Nausea Vomiting And Retching (INVR) questionnaire, the level of nausea and vomiting of Mrs. M was severe nausea and vomiting (value 18) and the level of nausea and vomiting of Mrs. D was severe nausea and vomiting (value 20). The results of this study are in line with the research of Ana Mariza and Ayuningtyas (2019) on respondents who experienced nausea and vomiting before being given acupressure action, most respondents experienced nausea and vomiting with an average value of 10.53 and a maximum value of 13 out of 30 respondents.

Measurement results The level of nausea and vomiting in Mrs. M and Mrs. D after acupressure therapy

Acupressure is one of the non-pharmacological treatments. Acupressure is a treatment method from ancient China at specific body acupuncture needle points using Acupressure finger points at specific body points. Acupressure and acupuncture stimulate the regulatory system and activate endocrine and neurological mechanisms which are physiological mechanisms in maintaining balance, manual emphasis on P6 in the wrist area, namely 3 fingers from the wrist area or two tendons. Acupressure is useful for strengthening or activating the affected organs and increasing blood flow in the body (Tanjung, Wari & Antoni, 2021).

The results of the study after acupressure therapy for 3 days proved that there was a decrease in the level of nausea and vomiting in respondents who scored severe nausea and vomiting. Before acupressure therapy Mrs.M got a score of 18 (severe nausea and vomiting), and after acupressure therapy for 3 days her nausea and vomiting decreased to a score of 15 (moderate nausea and vomiting). In the second meeting, Mrs. M said that after being given acupressure treatment, Mrs. M felt that the frequency of nausea and vomiting began to decrease. At the third meeting Mrs. M said it was better than before, the nausea had not disappeared but the frequency had begun to decrease and was better.

Mrs. D before acupressure therapy got a score of 20 (severe nausea and vomiting), and after acupressure therapy for 3 days there was a decrease in score to a score of 16 (moderate nausea and vomiting). Mrs. D said her nausea decreased and Mrs. D often did it independently and Mrs. D said the techniques given had an effect on nausea vomiting so that nausea vomiting decreased in frequency.

The results of this study are in line with research conducted by Khayati, (2022) the results of analyzing significant changes between the frequency of nausea and vomiting before and after intervention. This is evident from the results of scale measurements where the lowest score of nausea vomiting after P6 acupressure is 0 and the highest score is 8.

An overview of the effect of acupressure on pericardium point 6 to reduce excessive nausea and vomiting in first trimester pregnant women at the Oesapa health center

Acupressure therapy is one of the non-pharmacological therapies in the form of massage therapy at certain meridian points associated with internal organs to treat nausea and vomiting. Pericardium point 6 is a point located on the heart membrane meridian path. The heart membrane meridian has two branches, one branch enters the heart membrane and heart, then continues down through the diaphragm, into the middle and lower chambers of the abdomen. This meridian also crosses the stomach and colon.

Acupressure on the Nei guan point (Pericardium 6), stimulates the release of cortisol hormone which can increase the body's metabolism so that nausea and vomiting can be reduced. The acupressure treatment given is by pressing the P6 or Nei guan point which is believed to be the main point to eliminate nausea and vomiting. This point is located on the volar aspect of the forearm, which is about 3 cm above the wrist fold and between two tendons (Widyastuti et al., 2019).

After acupressure action for 3 consecutive days, the results were obtained, in Mrs. M there was a decrease in nausea and vomiting at the 3rd meeting, namely from the level of severe nausea and vomiting to the level of moderate nausea and vomiting, while in Mrs. D there was a decrease in the level of nausea and vomiting at the 3rd meeting, namely from the level of severe nausea and vomiting to the level of moderate nausea and vomiting. Based on the results of this study, researchers assume that acupressure therapy at pericardium point 6 can reduce the level of nausea and vomiting in pregnant women in the first trimester.

The results of this study are in line with the research of Wardani et al. (2020) on pregnant women in the 1st trimester of the Nelly Padang Sidiempuan Maternity Clinic, that 20 respondents who performed acupressure at the Nei Guan / P6 (Pericardium 6) point had an average frequency of nausea and vomiting of 7.30 before acupressure and 5.45 after acupressure. Likewise, the opinion of Mariza & Ayun (2019) who found that the frequency of vomiting before being given the intervention had a mean of 10.53 with the lowest index of 9 and the highest of 13 and Standard Deviation of 1.408 and Standard Error 0.257; while after being given acupressure showed a mean of 7.30 with the lowest index at a value of 5 and the highest value of 10, Standard Deviation 1.317, Standard Error 0.240.

CONCLUSION

The conclusions of the study are 1) Characteristics of pregnant women in the first trimester : Research subject 1 (Mrs. M) is 31 years old, married, Protestant Christian religion, originally from Soe, the last education is high school / equivalent, currently a housewife, primiparous parity and 11 weeks gestation. Research subject 2 (Mrs. D) is 32 years old, married, Catholic, comes from Flores Bajawa, the last education is S1 Pharmacist, currently a housewife, nulliparous parity with a gestational age of 11 weeks. 2) The level of nausea and vomiting in first trimester pregnant women at the Oesapa health center before acupressure at pericardium point 6 : The level of nausea and vomiting of the research subjects before acupressure at pericardium point 6, which was measured using the Rhodes Index Of Nausea Vomiting And Retching (INVR) questionnaire, Mrs. M's nausea and vomiting level was severe nausea and vomiting (value 18) and Mrs. D's nausea and vomiting level was severe nausea and vomiting (value 20). 3) The level of nausea and vomiting of pregnant women in the first trimester at the Oesapa health center after acupressure at the pericardium point 6 : The level of nausea and vomiting of the research subjects after acupressure at pericardium point 6 for 3 consecutive days, which was measured using the Rhodes Index Of Nausea Vomiting And Retching (INVR) questionnaire, obtained the results of a decrease in the level of nausea and vomiting in Mrs. M to a moderate level of nausea and vomiting (value 15) and in Mrs. D to a moderate level of nausea and vomiting (value 16).5). An overview of the effect of acupressure

action at pericardium point 6 to reduce excessive nausea and vomiting in first trimester pregnant women at the Oesapa health center : After acupressure action for 3 consecutive days, the results were obtained, in Mrs. M there was a decrease in nausea and vomiting at the 3rd meeting, namely from the level of severe nausea and vomiting to a moderate level of nausea and vomiting, while in Mrs. D there was a decrease in the level of nausea and vomiting at the 3rd meeting, namely from the level of severe nausea and vomiting to a moderate level of nausea and vomiting. Researchers assume that acupressure therapy at pericardium point 6 can reduce the level of nausea vomiting in pregnant women in trimester 1. Acupressure therapy is one of the nonpharmacological therapies in the form of massage therapy at certain meridian points related to organs in the body to treat nausea vomiting. Pericardium point 6 is a point located on the heart membrane meridian pathway. The heart membrane meridian has two branches, one branch enters the heart membrane and heart, then continues down through the diaphragm, into the middle and lower chambers of the abdomen. This meridian also crosses the stomach and colon.

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