

# **Proceeding The 1<sup>st</sup> Mitra Husada Health International Conference (MIHHICo) 2020**

**"Emergency Management Covid-19 of Reproductive Health for Saving Life"**

**STIKes Mitra Husada Medan, June 29-30<sup>th</sup>, 2020**

Editor :

**Ester Simanullang, STr.Keb, Bd, M.Kes  
Juliana Munthe, SST, M.Kes  
Edy Marjuang Purba, SKM, MPH**

Reviewer :

**Dr. Sandeep Poddar, MSc, PhD, Dip Diet**  
*(Lincoln University College, Senior Research Director)*  
**Dr. Abubakar Ahmed Tijani (DVM, MPH)**  
*(Kwara State Ministry of Agriculture Nigeria,  
Kwara Rapid Response Team Covid 19)*  
**Dr. Sounthone Phothisane**  
*(Savanakhet Laos College of Health Sciences)*  
**Dr. Siti Nurmawan Sinaga, SKM, M.Kes**  
*(Institute Of Health Science Mitra Husada Medan)*

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**"Emergency Management Covid-19 of Reproductive Health for Saving Life"**  
**STIKes Mitra Husada Medan, June 29-30<sup>th</sup>, 2020**

**Condescendent (Yayasan Mitra Husada Medan)**  
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**Secretary (Juliana Munthe, SST, M.Kes)**  
**Treasuree (Rosmani Sinaga, SE)**

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*(Institute Of Health Science Mitra Husada Medan)*

Steering Committee :

**Herna Rina Yanti Manurung, STr.Keb, Bd, M.Kes**

Publisher :

**STIKes Mitra Husada Medan**

**Jl. Pintu Air IV Pasar 8 Kel. Kwala Bekala Kec. Medan Johor Medan**

**Tel (061) 8367405**

**Fax : (061) 8367405**

**Web : mitrahusada.ac.id**

**Email : stikesmitrahusadamedan18@gmail.com**

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## FOREWORD

Praise be to our gratitude for the presence of God Almighty, because it is for His blessings and grace that the Proceedings of the International Thema Webinar: The 1st Mitra Husada Health International Conference (Mihhico) can be carried out as expected. The International Webinar organized by STIKes Mitra Husada Medan and in collaboration with Lincoln University Collage, Savanakheth Laos College of Health Sciences and Kwara State Ministry of Agriculture Nigeria on 29 and 30 June 2020, took place at STIKes Mitra Husada Medan. As an educational institution, one of the main tasks and functions of the academic community is to conduct research which is then published so that it can be distributed to the wider community. Therefore STIKes Mitra Husada Medan carries out activities in the form of an International Webinar in 2020. STIKes Mitra Husada Medan organizes 4 health study programs consisting of the Midwifery Professional Education Study Program, the Professional Program Midwifery Study Program, Midwifery Study Program Diploma Three, Nursing Study Program Diploma Three who have a strategy during this pandemic to increase the understanding of students and midwives and nurses regarding the benefits of reproductive health care therapy in the Covid-19 Pandemic Era with these activities so as to increase knowledge and understanding of Reproductive Health Service Care in the Covid-19 Pandemic Era and raise awareness about the importance of publications for research, both those who receive research grants from the Ministry of Research, Technology and Higher Education and Husada Medan partner foundations, as well as provide assistance in scientific publications for researchers, lecturers, and students, as well as the academic community and society other. The participants of the International Webinar were attended by lecturers, students, and other researchers, totaling 6809 participants and invited guests and 30 speakers. Invited speaker in this seminar invited Dr. Sandeep Poddar, MSc., PhD., Dip Diet (Lincoln University Collage), Dr. Sounthone Phothisane (Savanakheth Laos College of Health Sciences), Abubakar Ahmed Tijani, DVM., MPH (Kwara State Ministry of Agriculture Nigeria). On behalf of the committee, we would like to express our deepest gratitude for the willingness of resource persons, participants and all related parties to participate in this International Webinar. To the speakers who have sent their papers to be published in the 2020 International Webinar proceedings. Thank you to the Mitra Husada Medan Foundation, the Chairperson of STIKes Mitra Husada Medan and all the committees who contributed to the successful implementation of this activity.

chairman of the committee

Ester Simanullang, S.Tr.Keb., Bd., M.Kes



**1<sup>st</sup> Mitra Husada Health International Conference (1<sup>st</sup> MIHHICo) ” Which is 29-30  
June 2020, Medan-Indonesia  
PROGRAM**

<b>DAY 1. JUNE MONDAY 29<sup>th</sup>, 2020</b>			
<b>Time</b>	<b>Activity</b>	<b>Speaker</b>	<b>Chair &amp; Co-Chair</b>
09.00-10.00 AM	1. Welcoming and greeting 2. Opening prayer 3. Sing the National anthem of Indonesia Raya	Master of Ceremony	Edy Marjuang Purba, SKM., MPH Zulkarnain Batubara, S.Pd.I, M.Hum
	4. Welcome speech and greeting The Chief of College STIKes Mitra Husada Medan Indonesi	Siti Nurmawan Sinaga, SKM., M.Kes	
10.00-10.30 AM	COVID-19 Depression and Its Effect	Dr. Sandeep Poddar, MSc., PhD, Dip Diet From Lincoln University	
10.30-11.00 AM	Covid-19 in Laos	Dr. Soonthone Phothisane from College of Health Science Savannakhet Lao	
11:00-12.00 AM	Topic from Mahsa University	Prof. Zahra Saad, M.S.c., B.Sc. (Nsg), Edu (MU), SRN, SCM Dean, From Mahsa University	
12.00-12.30 PM	Effectiveness and Participation of Antenatal Visits During in New Normal Covid 19	Siska Suci Triana Ginting, SST., M.Kes	
12.30-13.00 PM	Roles and Responsibilities of Health Workers in the Promoting of Breast Milk	Febriana Sari, SST., M.Tr.Keb	
13.00-13.30 PM	Covid-19 Prevention Behavior in Children	Marliani, SST., MKM	
13.30-14.00 PM	Homecare For Older People During The Covid-19 Disease Pandemic	Rosmega, SST., M.Kes	
14.00-15.00 PM	Lessons learnt from the Frontlines in other countries to prevent Covid-19	Dr. Ahmed Abubakar, DVM,MPH, from Kwara State Ministry of Agriculture Nigeria	
15.00-15.20	Token Of Appreciation All Co-Host & Group Photos	Master of Ceremony	

<b>DAY 2. JUNE TUESDAY 30<sup>th</sup>, 2020</b>			
<b>Time</b>	<b>Activity</b>	<b>Speaker</b>	<b>Chair &amp; Co-Chair</b>
08.00-08.15 AM	1. Welcoming and greeting 2. Opening prayer 3. Sing the Mars Song of STIKes Mitra Husada Medan 4. Oral presentation schedule: - Code of conduct - Jury introduction	Master of Ceremony	Edy Marjuang Purba, SKM., MPH Zulkarnain Batubara, S.Pd.I, M.Hum
	Juri in Section 1 <sup>st</sup> , 2 <sup>nd</sup> , and 3 <sup>rd</sup> :	1. Lidya Natalia Sinuhaji, SKM., M.Kes 2. Lusiaturun, SST., MPH 3. Srilina Br Pinem, SST., M.Keb	
	Juri in Section 4 <sup>th</sup> and 5 <sup>th</sup> :	1. Herna Rinayanri Manurung, SST., M.Kes 2. Siska Suci Triana Ginting, SST., M.Kes 3. Febriana Sari, SST., M.Tr.Keb	
08.15-09.35 AM	Oral Presentation Section 1	Section 1 presenter	Retno Wahyuni, S.Tr.Keb, M.Kes
09.35-10.55 AM	Oral Presentation Section 2	Section 2 presenter	Retno Wahyuni, S.Tr.Keb, M.Kes
10.55-12.15 PM	Oral Presentation Section 3	Section 3 presenter	Retno Wahyuni, S.Tr.Keb, M.Kes
12.15-13.35 PM	Oral Presentation Section 4	Section 4 presenter	Retno Wahyuni, S.Tr.Keb, M.Kes
13.35-.15.00 PM	Oral Presentation Section 5	Section 5 presenter	Retno Wahyuni, S.Tr.Keb, M.Kes
15.00-15.30 PM	1. Closing Ceremony	Master of Ceremony	Zulkarnain Batubara, S.Pd.I, M.Hum
	2. Best paper and performance Announcement		
	3. Closing Speech From and greeting The Chief of College STIKes Mitra Husada Medan Indonesia	Siti Nurmawan Sinaga, SKM., M.Kes	
	4. Pray	Master of Ceremony	
	5. Group Photos		

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MHHC  
2020  
STIKes Mitra Husada Medan



## THE EFFECT OF ADDITION OF GARLIC'S (*Allium sativum*) EXTRACT ON BEEF PROTEIN LEVELS WHICH IS EXPOSED BY MICROWAVE RADIATION

Jannes Bastian Selly<sup>1</sup>, Kadek Dwi Ariesthi<sup>2</sup>, Mili Arthanedi Jumetan<sup>3</sup>

<sup>1,2,3</sup> Diploma III Midwifery Study Program, Universitas Citra Bangsa

Corresponding author: [bastian.jannes04@gmail.com](mailto:bastian.jannes04@gmail.com)

### ABSTRACT

**Aim/Objective** The aim of this study was to determine the effect of adding garlic which contains antioxidant compounds, to beef protein levels exposed to microwaves in the cooking process using a microwave oven. **Material and method** This research method is a pure experimental research with pretest posttest control group design. The independent variable in this study was the concentration of garlic which was varied in 3 different concentrations namely 25%, 50% and 100%. The solvent used in making garlic extract is water. Dependent variable is the level of meat protein before and after administration of antioxidants and microwave radiation exposure. The type of meat used is beef sirloin. A total of 100 grams of meat with a thickness of 2.5 cm, applied with garlic extract and left for 1 hour at room temperature. The meat is then cooked using a microwave oven with a temperature of 150°C and baking time for 8 minutes. Protein content test using the Kjeldahl method before and after treatment, carried out in the health laboratory, Universitas Citra Bangsa. **Results** The results showed that there was a significant effect between garlic concentration on beef protein levels exposed to microwaves ( $p$ -value = 0.048). The correlation coefficient ( $R^2$ ) between garlic concentration and protein content is 0.906. **Conclusion** Garlic concentration has a positive influence on meat protein levels. This means that the higher the concentration of garlic added to the meat before cooking, the higher the level of meat protein can be maintained.

**Keywords:** Garlic, protein level, microwave radiation

### INTRODUCTION

Protein as a body building substance, has the function of forming new tissues in the body. Lack of protein can reduce the body's resistance to disease. High protein intake can strengthen the immune system so it is not susceptible to disease, especially in the current covid-19 pandemic[1]. Pregnant women also need large amounts of protein. Protein needs of pregnant women per day between 75-100 grams [2]. One food source that is rich in protein is beef.

The protein content in beef is different for each part. The sirloin has the highest protein content, which is about 27 grams per 100 grams of meat [3]. However, the cooking process, can reduce protein content in meat. Research conducted by Sundari *et al* (2015) found that the protein content of meat cooked by frying can

reduce protein content by 16%, whereas by boiling it reduces the protein content by 8.8% [4]. Decreased protein levels are due to protein denaturation due to increased temperatures in the cooking process.

Protein denaturation is a decrease in protein levels due to damage to the protein chain in food. Protein denaturation can be caused by various things such as an increase in temperature [5]. The use of temperatures between 180<sup>0</sup> C to 300<sup>0</sup> C in the cooking process will cause considerable damage or can reduce the nutritional value of protein [5,6]. Damage to the protein chain can cause the formation of radical compounds in food. Radical compounds that enter the body can bind to healthy cells or tissues in the body so that abnormal cells and tissues are formed which trigger various diseases such as cancer. Research conducted by a team of researchers from Shahid Baheshti

University Iran, explained that cooking meat using a microwave can cause the formation of heterocyclic amine compounds that trigger cancer [7]

Microwave oven is one of the cooking instruments that is currently widely used because it is more practical and effective. This oven can be used easily, only by connecting to a power source, without the need to use gas fuel. In addition, the time needed to cook is also faster than other cooking instruments. The heat produced to ripen food comes from microwave radiation that is exposed to food. This radiation is not classified as ionizing radiation, so that its exposure will only result in the excitation of electrons in food. However, the use of high temperatures can trigger the occurrence of protein denaturation thereby reducing protein levels and forming radical compounds in food. To reduce the activity of radical compounds, anti-free radical compounds are needed or known as antioxidants [8,9].

Antioxidant compounds are compounds that are able to donate electrons to radical compounds thereby reducing the reactive nature of these radical compounds. One ingredient that has potential as an antioxidant is garlic (*Allium sativum*). Garlic is a popular cooking spice and is very often used in Indonesian cuisine. Previous research results showed that garlic extract contained alkaloids, flavonoids and triterpenoids [10]. This compound has antioxidant potential that can reduce the reactive nature of free radical compounds. Referring to the potential possessed, and the use of garlic as a cooking spice, the researchers felt the need to conduct research related to the potential of garlic in preventing free radicals that might arise during the cooking process using a microwave oven.

## **MATERIAL AND METHODS**

This research is a true experimental research with pretest posttest control group design. The independent variable in this study was the concentration of garlic which

was varied in 3 different concentrations namely 25%, 50% and 100%. Garlic extract is made using water as a solvent. Dependent variable is the level of meat protein before and after administration of antioxidants and microwave radiation exposure.

Beef sample used is sirloin. A total of 100 grams of meat with a thickness of 2.5 cm, distributed with garlic extract and left for 1 hour at room temperature. The meat is then cooked using a microwave oven with a temperature of 150°C and a baking time for 8 minutes. The purpose of choosing the temperature and roasting time is to get the level of medium well maturity. This level of maturity is the level of maturity for steaks that most people like most.

The test sample was divided into 5 groups, consisting of 2 control groups and 3 experimental groups. The control group was divided into negative control group, which was the sample group without the addition of extracts and microwave exposure. While the positive control group for samples cooked using a microwave oven but without the addition of garlic extract was added. The three experimental groups were given the addition of extracts with different concentrations for each group, then cooked using a microwave oven.

Protein content testing using the Kjeldahl method. Protein content test is done before and after the treatment of the addition of onion extract and cooking with a microwave oven, carried out in a health laboratory Universitas Citra Bangsa.

## **RESULT**

### **3.1. Identification of Beef Protein Retention in Control and Experiment Groups After Exposure to Microwave Radiation**

The retention rate of meat protein for the control and experimental groups before and after treatment is shown in the diagram in Figure 1 below

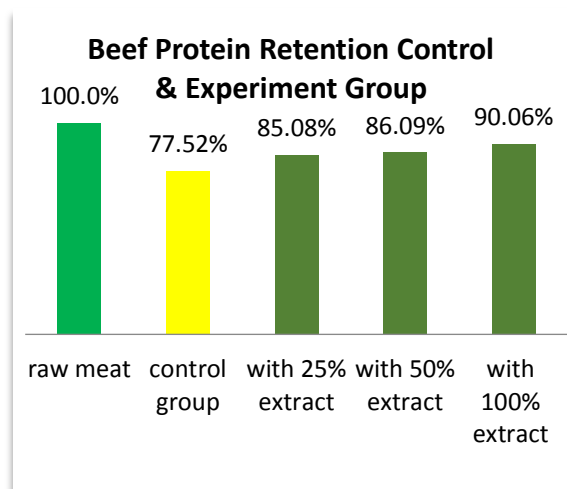


Figure 1. Beef protein retention rates in the control and experimental groups after exposure to microwave radiation.

Based on Figure 1 above, it is known that the control group which was given microwave exposure without the addition of previous garlic extracts, had a protein retention rate of 77.52% or decreased by 22.48% compared to when in raw conditions. In the experimental group given the addition of garlic extract before irradiation, the retention rate of meat protein showed a higher value. At a concentration of 25%, meat protein retention was 85.08%, or 7.56% better than the control group without extracts. As for the group that was given garlic extract with concentrations of 50% and 100%, the retention rate of meat protein showed values of 86.09% and 90.06%, respectively. This shows that there are differences between each control and experimental group, therefore a statistical test was performed to determine the effect of variations in the concentration of garlic extract on meat protein retention exposed to microwave radiation. The statistical test used was a simple linear regression test with the independent variable (X) being the concentration of garlic extract, and the dependent variable (Y) was the level of meat protein retention

### 3.2. Effect of Garlic Extract Concentration on Beef Protein Retention after Exposure to Microwave Radiation

Linear regression test results showed that the concentration of garlic extract given to meat before exposure to microwave radiation had a significant effect on the level of meat protein retention (p-value 0.048). The linear curve of the effect of extract concentration on meat protein retention is shown in Figure 2 below

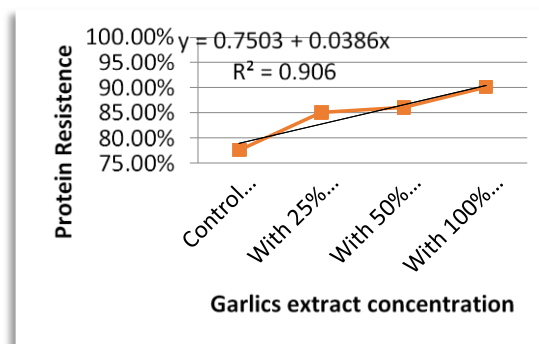


Figure 2. Linear curve effect of garlic concentration on the level retention of meat proteins exposed to microwaves

Figure 2 above shows that the regression equation formed from this relationship is  $Y = 0.7503 + 0.0386X$ . This equation illustrates that without the addition of garlic extract to meat, meat protein retention is estimated to be at the value of 0.7503 or 75.03%, with the addition of 1 unit of garlic concentration, will increase meat protein retention by 3.86%. The regression coefficient (R<sup>2</sup>) formed is 0.906 or 90.6% which means that there is a strong positive influence between the concentration of garlic extract and the level of beef protein retention exposed to microwaves.

### CONCLUSION

Based on the description of the findings above, it can be concluded that the cooking process using a microwave oven can reduce beef protein content by about 22.48%. however, the addition of garlic extract at a concentration of 100% can increase beef protein retention to around 90.06%. the

concentration of garlic extract has a positive impact on the retention of beef protein cooked in a microwave oven. the higher the concentration of garlic added, the higher the beef protein retention.

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## EXPERIENCE OF NURSES IN IMPLEMENTING PATIENT SAFETY CULTURE AT USU HOSPITAL

**Zuraidah**

khalipah710@gmail.com  
STIKes Mitra Husada Medan

### ABSTRACT

Background Patient safety culture is an important and fundamental component to build holistic patient safety program, In addition, it also plays a vital role in assessment of safety and service quality in hospitals. In order to minimize the prevalence rate of patient safety incidents, to prevent and reduce patients' risk, the Institute of Medicine and Indonesian Hospital Accreditation Standard (SNARS) recommend that patient safety culture be developed and implemented in all scope of hospitals. Aim/Objective: The objective of this research was to profoundly study the experience of nurses in implementing patient safety culture at USU Hospital. Material and method : This is a descriptive phenomenological research. The instrument used was demographic characteristics questionnaires and in-depth interview with field note. Purposive sampling technique was used to select participants that met the inclusion criteria. The participants consisted of 15 nurses working at USU Hospital, Medan. Results : The transcript of the in-dept interviews with participants was analyzed using Collaizi approach. The result discovered 5 themes, namely: accomplishment of patient safety goals with the support from the hospital management, information provision about patient nursing care to improve patient safety, report of patient safety incidents, obstacles encountered by nurses in implementing patient safety culture, and expectation that nurse implement safety culture. Conclusion: The experience of implementing nurses in the culture of implementing patient safety in hospitals requires support from hospital management by fulfilling facilities in the form of facilities and infrastructure in implementing patient safety programs and with incidents of patient safety by creating a positive work environment and safety culture.

**Keywords:** patient safety culture, nurses, experience

### INTRODUCTION

The current nursing service paradigm leads to the quality-safety paradigm of maintaining patient safety consistently and continuously, besides that the quality of service must be improved because the better the quality of service the better patient safety will be (Turkmen et al., 2013). Based on Minister of Health Regulation No.11 of 2017 Patient Safety Incident (PSI) is an unintentional event or condition that can result in injury to patients that can be prevented. Patient Safety Incidents (PSI) include unexpected events, near misses, non-injury events, and potential injury events. These incidents can be prevented by comprehensive services and good service programs by involving patients and their

families because it is not uncommon for these incidents to end in lawsuits.

The problem of mistreatment was first voiced by the breakthrough report of the Institute of Medicine (2000) based on a report entitled "To Err is Human, Building to Safer Health System". The United States estimates that medication errors injure 1,000,000 patients and cause 98,000 deaths a year. According to the National Patient Safety Agency in 2017 the number of patient safety incidents reported in January - December 2016 from the United Kingdom was 1,879,822 incidents, Malaysia as many as 2,769 incidents while Indonesia was 877 incidents (Zainal Abidin Regional Hospital, 2017).

In Indonesia based on patient safety incident data published by the Hospital Patient Safety Committee (KKPRS) in 2012 as many as 145 incidents consisting of KTD 46%, KNC 48% and others 6%, and location of these incidents by province was found by DKI Jakarta to rank the highest is 37.9% followed by Central Java 15.9%, DI Yogyakarta 13.8%, East Java 11.7%, South Sumatra 6.9%, West Java 2.8%, Bali 1.4%, South Sulawesi 0.69% and Aceh 0.68%.

Many incidents related to the work area were not reported for fear of being blamed (Radhakrishna, 2015). Reporting is the basis for detecting patient safety issues, being a source of information for health services. In line with the results of research by Yoo and Kim (2017) that incident reporting is influenced by the work environment, the perception of safety culture is needed as an encouragement to staff to report every incident (Ali et al., 2018). The Institute of Medicine (IOM) and the National Hospital Accreditation Standards (SNARS, 2017) recommend creating or building a patient safety culture that must be applied in the entire scope of the hospital. The patient safety culture is the first of seven safety steps.

The application of a patient safety culture is not easy for nurses, although it seems strategic and practical to create a safety culture may seem simple, but its implementation is not easy, and nurses feel challenged. Based on previous research experience nurses' challenges in achieving an effective and positive patient safety culture in health care organizations include 1) inadequate organizational infrastructure, 2) inadequate leadership effectiveness, 3) inadequate efforts to offset national and international standards, and 4) overshadowed the values of team participation (Farokhzadian et al., 2018).

Nurses become health workers who play a role in improving patient safety in hospitals in addition to other health workers. Nurses play an important role in maintaining and promoting patient safety in hospitals, so nurses' abilities are needed to

prevent and minimize errors (Turkmen et al., 2013). As a front-line care provider, nurses spend most of their time in patient care activities directly than other professionals, so nurses are expected to be very important to implement safety culture behavior in hospitals to ensure patient safety (Balamurugan & Flower, 2015).

USU Hospital is a teaching hospital that is used as a practice area for health students. According to the USU Hospital patient safety quality committee the incident report at USU Hospital was still low because there was no awareness from health workers to report it. Based on this information, it illustrates that efforts to minimize the occurrence of patient safety incidents related to patient safety aspects at USU hospitals have not been optimal because the incidence rate is still high, nurse report incidents are still low.

## **MATERIAL AND METHODS**

This study uses qualitative research with a descriptive phenomenological approach developed by Husserl. The researcher conducted a descriptive phenomenological study with the aim of exploring deeper the experience of nurses in applying patient safety culture at USU hospitals. Participants involved in the study were 15 nurses. The selection of participants in this study used a purposive sampling method. The criteria for participants in this study based on inclusion criteria are: 1) nurses who have worked at USU Hospital for at least 6 months, 2) are willing to be interviewed and recorded their activities during the interview or during the study by signing informed consent, 3) able to tell their experiences with good so that richer information is obtained (rich information).

## **RESULT**

There are five themes that emerge from the analysis of in-depth interviews with the participants: 1) accomplishment of patient safety goals with the support from the hospital management, 2) information provision about patient nursing care to



improve patient safety, 3) report of patient safety incidents, 4) obstacles encountered by nurses in implementing patient safety culture, 5) and expectation that nurse implement safety culture.

**Thema 1** : accomplishment of patient safety goals with the support from the hospital management.

Hospital patient safety can be assessed by implementing patient safety goals. Implementation of patient safety targets by implementing nurses is quite optimal and based on SOP especially when the hospital is currently preparing hospital accreditation. The hospital management has resumed patient safety training with the aim that nurses carry out patient safety goals according to procedures.

This is explained in the following statements:

"...So first we look at the patient's bracelet is appropriate or not while we ask your father's name, what date of birth while we see the patient bracelet is appropriate or not .." (Nurse demonstrates the patient's identity with the patient's bracelet, Participant 2)

The majority of nurses make effective communication to patients and families in the form of education, while effective communication of nurses with fellow nurses and caregivers about information relating to the patient's condition and is recorded on an integrated sheet.

This is explained in the following statements:

"We always educate patients to come in ... to educate their families to wash their hands ... and their functions or whenever they wash their hands ..." (Participant 3)

**Thema 2** : Information provision about patient nursing care to improve patient safety

Interaction of nurses with nurses between rooms in nursing practice is done at the time of transfer of spatial patients and nurses carry out operands regarding the care of these patients for example assessments that have been done before, therapies provided, diagnostic examinations and others. Everything about the patient is recorded in the patient's progress record and

all nurses can find out the patient's condition through the record.

This is explained in the following statements:

"... Surrender the nurse later, I will send the patient to the room after the operand at the nurse station will be informed about the patient's diagnosis, what drugs have been given, what actions have been taken ..." (Participant 2).

**Thema 3** : Report of patient safety incidents

Reporting is an important element of patient safety, and the beginning of the learning process to prevent the same incident from happening again. Not all incidents that occur in nursing services are reported by nurses due to various reasons.

Most nurses said that if a patient safety incident occurred, it would report it because it considered the impact if not reporting could result in nursing themselves, patients and hospitals and there is no point in being hidden because it would later be discovered. This is explained in the following statements:

"..It's better to know the truth even though it's bitter than being hidden later, the results will be bad, everyone ..." (Participant 6).

There are nurses who do not report errors for reasons of fear of punishment by the hospital, are repeatedly called to be asked for information about the incident and there is no reward for nurses who report incidents This is explained in the following statements:

"No ... because there is no reaction right ... I see. If you have a reaction then you can report it ..." (the nurse gave an example of a drug reaction in his hand and the nurse's face looked a little tense, Participant 5).

**Thema 4** : Obstacles in applying a patient safety culture

The obstacle in implementing patient safety culture is one of nurses' behavior. The nurse said that he still did not comply with the procedure and did not comply with the use of personal protective equipment

This is explained in the following statements

"Yes, I have entered without using a mask ... That is so ... So judging sometimes it's still lacking ... sometimes it's trivial huh ..." (The nurse smiled slightly because she felt guilty about her actions, Participant 11)

Barriers from the limited facilities such as hand washing soap, tissue that is often used up and sometimes the room spends its own funds to meet aseptic equipment in the room. Besides other means are often used up is a marker of the risk of falling patients such as stickers or yellow labels

This is explained in the following statements:

"Since I work here I have never seen either a yellow sticker or a yellow bracelet. But indeed the patient is at risk of falling ..." (nurses try to convince the information conveyed by staring at researchers' faces, Participant 2)

**Thema 5 :** Expectation that nurse implement safety culture

The nurse said that he had hopes for the hospital management to build a culture of safety in the hospital by facilitating the implementation of a patient safety program, which was to complete the facilities, expect to attend training in the hospital, hopes for screening and administration of vaccines, hopes for supervision, and expectations increase human resources.

Nurses said that in practicing nursing is limited in facilities such as hand washing soap, tissue and other PPE devices so that nurses worry about the risks that will occur to themselves and patients. In addition nurses also want the fulfillment of appropriate infrastructure such as bed transfers in the Emergency Room because the number of bed transfers is limited in the Emergency Room. This is explained in the following statements:

"Sometimes there are no stickers ... usually we are at Stanby right there ... I ask for it but sometimes it runs out ..." (the nurse's face shows a disappointed expression, Participant 1)

"For the transfer of the patient the bed is really the transfer for the patient is not a bed like in the room .. indeed the equipment is

expensive ..." (Nurse tries to convince the information conveyed by looking at the faces of researchers, participant 8)

Nurses who work in rooms that are at risk of transmission of infection really want the hospital to do screening and vaccines to them such as hemodialysis rooms, emergency and intensive care installations, not only patients who are screened but nurses are also screened and vaccinated

This is explained in the following statements:

"Hopefully all the nurses here are screened because we don't know that they aren't punctured but there are wounds without us knowing that this patient has HIV, hepatitis for personal safety ..." (Participant 13)

Based on the research results nurses can implement patient safety programs well because of support from hospital management by facilitating nurses to improve their knowledge, skills or abilities in carrying out patient safety goals with in-house patient safety training and providing guidance to nurses related to problems they cannot solve it yourself. In line with research by Sithi and Widiastuti (2016) explaining that patient safety training can improve nurses' understanding of the importance of patient safety and monitoring results show 97% compliance.

Communication is very important for work efficiency and for coordination between implementers, teams and managers. Communication during operands is the provision of verbal information about patients for the continuity of care provided. In line with the research of Sohi et al. (2015) effective communication reduces the duration of the received weighing. Based on these studies the use of effective communication in the implementation of weighing, can save time and information delivered to be more complete for the continuity of patient care and treatment. One form of effective communication is communication when carrying out operands which are the transfer of information and professional responsibility for the continuation of patient care. Effective

communication when operands can increase collaboration, implementation time can be minimized and information delivered is more accurate (Mairoso et al., 2019).

Every incident that occurs must make an incident report (incident report) either for the nurse involved or who discovered the incident. Reporting is an important system in identifying patient safety problems and the beginning of the learning process to prevent the same incident from happening again (Ismaidar, 2018). Reporting incident incidence is beneficial for hospitals and nurses because based on the important principle of incident reporting explaining the main function of incident reporting is to improve patient safety through learning from failures / errors (Simamora, 2018).

Based on the results of the study found that the majority of nurses involved in the incident will report the incident with their own awareness to the head of the room or team leader on the grounds it will harm the patient, and family, hospital and nurses themselves because after all efforts to hide it will definitely be discovered as well.

In line with the research of Joolae et al. (2011) found nurses involved in the incident to report an error of 19.5% (over a three-month period) and an average error reporting rate of 1.3 nurses. Nurses with an awareness of reporting incidents are influenced by perceptions of the work environment and patient safety culture. The level of incident reporting is closely related to the workplace environment and internal regulations including reporting procedures. Based on research Yoo and Kim (2017) found nurses who have a positive perception of the work environment and patient safety culture will positively correlate with the attitude reporting incident.

Nurses in providing nursing services to patients try to avoid the danger of avoiding the spread of nosocomial infections, for example. One of the things that nurses can do is to use Personal Protective Equipment (PPE) in accordance with the SOP set by the hospital when providing nursing care to

patients and families. According to Harrod et al. (2019) The use of PPE depends on the type of preventive measure, the PPE required may consist of the use of a gown, gloves, eye protection and face mask or respirator. PPE used by health care workers aims to reduce the transmission of infectious organisms to themselves and patients, but based on the results of the study there are still nurses who are not compliant in using PPE.

Another obstacle is that the majority of nurses express barriers from limited facilities such as hand washing soap, tissues which are often used up and sometimes the room spends its own funds to fulfill aseptic equipment in the room. In line with the results of Mandriani's research, Hardisman and Yetti (2019) who conducted interviews with informants found obstacles in implementing a patient safety culture is the behavior of health workers and management support in completing facilities. But it is not in line with the research of Ernawati, Rachmi and Wiyanto (2014) the completeness of the facilities provided for hand hygiene in the inpatient rooms is well available, but the level of compliance with hand hygiene is still low (35%).

Based on the results of the study, the majority of nurses had hopes for management to complete facilities such as hand washing soap, tissues, a marker of falling risk. In line with the results of research conducted by Ammouri et al. (2017), finding nurses who had good expectations of management and supervisors became one of the main predictors in implementing patient safety culture. According to Cho and Choi (2018) in their research explained that expectations for managers related to the attitudes and competencies of nurses in patient safety.

Nurses have the hope to increase human resources because it is difficult to carry out safety targets well if staff are limited and compared to the large number of patients let alone those patients coming at the same time. In line with the research of Wang et

al. (2014) and other studies (Ahmadi, 2010; El Jardail et al., 2010) found the application of safety culture to the staff dimension is still low compared to other dimensions. About 70% of nurses feel that there is not enough staff to handle the workload of nurses working in critical rooms.

## CONCLUSION

The experience of implementing nurses in the culture of implementing patient safety in hospitals requires support from hospital management by fulfilling facilities in the form of facilities and infrastructures in implementing patient safety programs and with incidents of patient safety by creating a positive work environment and safety culture by not giving punishment to those who do mistakes, avoiding blaming culture, and giving rewards to those who report incidents of patient safety incidents.

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STIKes Mitra Husada Medan

## RELATIONSHIP OF THE ARM AND THE HEMOGLOBIN LEVELS ON PREGNANT WOMAN TRIMESTER III WITH BABY BODY WEIGHT

**Deka Suheriawaty**

Dekasuherawaty123@gmail.com

STIKes Mitra Husada Medan

### ABSTRACT

Nutritional status is the fulfillment of adequate nutritional needs is absolutely needed by pregnant women in order to meet the nutritional needs for the growth and development of the baby it contains and the physical preparation of the mother to face childbirth safely. Fulfillment of balanced nutrition during pregnancy will improve the health condition of infants and mothers, especially in the face of the puerperium as initial capital for breastfeeding. This study uses an observational analytic research design with the approach used is case control, aims to determine the relationship between lila and hemoglobin levels in trimester III pregnant women with birth weight babies in Medan Johor Health Center working area in 2019. Analytic observational research design with a prospective approach is The study measured exposure status at the start of the study and a cohort was followed to look at birth weight. Based on the results of bivariate analysis using chi square obtained p value = 0.37 ( $p < 0.05$ ) with a 95% confidence level. This p value statistically shows that there is a significant relationship between Lila and the baby's birth weight. While based on the results of bivariate analysis using chi square obtained p value = 0.02 ( $p < 0.05$ ) with a 95% confidence level. This p value statistically shows that there is a significant relationship between hemoglobin levels and the birth weight of a baby.

**Keywords :** *upper arm circumference, hemoglobin levels and birth weight*

### INTRODUCTION

The nutritional status of pregnant women is a state of balance in the body of pregnant women as a result of the intake of food consumption and the use of nutrients used by the body for survival in maintaining bodily functions (Supriasa, 2012).

The nutritional status of the mother before and during pregnancy can affect the growth of the fetus being conceived. If the nutritional status of the mother is normal in the period before and during pregnancy, it will most likely give birth to a healthy baby, just months with normal weight. In other words, the quality of babies born is highly dependent on the nutritional state of the mother before and during pregnancy (Eva Sibagariang, 2010).

Upper Arm Circumference is the nutritional status of pregnant women by measuring the size of the upper arm circumference, if it is less than 23.5 cm, the pregnant woman experiences chronic

energy deficiency, so that the pregnant woman may be at risk of giving birth to a low birth weight baby (Putri, 2015).

Hemoglobin is a protein found in red blood cells or erythrocytes that gives blood a red color. Hemoglobin consists of iron which is an oxygen carrier (Munthe, et al, 2019).

Hemoglobin level is a low hemoglobin content thus indicating anemia. Depending on the method used, the hemoglobin value becomes accurate to 2-3% (Supriasa, 2012). The initial symptoms of anemia are weak body, lack of appetite, lack of energy, decreased concentration, headache, firefly eyes, besides the eyelids, lips, and nails look pale. Prevention of anemia in pregnant women can be done by administering iron tablets and improving the quality of daily food.

Based on preliminary surveys in the Medan Johor Health Center, the total number of pregnant women is 60 people.

From these data there are 9 pregnant women who experience anemia or hemoglobin levels less than normal. From 9 pregnant women, there are 2 pregnant women who give birth to babies with low birth weight.

Based on the description above, the author would like to know more clearly about the "Relationship between Lila and Hemoglobin Levels in third trimester pregnant women with birth weight babies born in Medan Johor Health Center in 2019.

### **MATERIAL AND METHODS**

This research uses analytic observational research design with the approach used is case control, aims to determine the relationship of upper arm circumference and hemoglobin levels in trimester III pregnant women with birth weight babies born in Medan Johor Health Center working area in 2019. Analytic observational research design with an approach Prospective research is to measure the status of exposure at the beginning of the study and a cohort followed to see the weight of the baby born (Notoatmodjo, 2010).

The sample used in this study were 30 third trimester pregnant women in the Medan Johor Health Center in 2019. The sampling technique in this study was non-probability sampling (non-random sampling). In the use of non-probability sampling, one's knowledge, beliefs, and experience are taken into consideration to determine the population members chosen as a sample.

### **RESULT**

Characteristics

#### **1. Univariate Analysis**

##### **Frequency Distribution Based on Age of Pregnant Women**

Univariate analysis seen in the independent variable (Age) is the frequency distribution with the Weight of Babies Born in the Work Area of Medan Johor Health Center in 2019 with a risk category <20 years ->

35 years, no risk of 20-35 years. As shown in table 4.1 below.

Table 4.1  
 Frequency Distribution of Respondents by Age of Pregnant Women in Medan Johor Puskesmas Work Area in 2019

Age	Frequency	Percent %
1. Risk (<20 years -> 35 years)	5	16,7
2. No Risk: 20-35 years	25	83,3
Total	30	100,0

Based on table 4.1 above, it can be seen that from a total of 30 pregnant women respondents studied, the majority of respondents who were at risk were 5 respondents (16.7%) and those who were not at risk were 25 respondents (83.3%).

##### **Frequency Distribution Based on Parity in Pregnant Women**

Univariate analysis seen from the independent variable (Parity) is the frequency distribution with Birth Weight of Babies in the Work Area of Medan Johor Health Center in 2019 with a category of parity > 3 with parity <3 as shown in table 4.2:

Table 4.2  
 Frequency Distribution of Respondents Based on Parity of Pregnant Women in Medan Johor Health Center Working Area in 2019

Parity	Frequency	Percent %
1. parity <3	26	86,7
2. parity >3	4	13,3
Total	30	100,0

Based on table 4.2 above, it can be seen that from the 30 pregnant women respondents studied, the majority of respondents who obtained > 3 were parity > 3 (13.3%), and parity <3 were 26 people (86.7%).

### Frequency Distribution Based on Education in Pregnant Women

Univariate analysis seen from the independent variable (Education) is the frequency distribution with Birth Weight of Babies in the Work Area of Medan Johor Health Center in 2019 with the categories of low education (SD-SMP), and higher education (SMA-GRADUATE) as shown in table 4.3 :

Table 4.3

Distribution of Respondents Frequency Based on Education to Pregnant Women in Medan Johor Health Center Working Area in 2019

Education	Frequency	Percent %
1. Low education (elementary / junior high school graduates)	10	33,3
2. Higher education (high school / diploma / graduate)	20	66,7
Total	30	100,0

Based on table 4.3 above, it can be seen that from a total of 30 pregnant women respondents studied, the majority of respondents who received a low education level were 10 people (33.3%), and higher education were 20 people (66.7%).

### Frequency Distribution Based on Occupation in Pregnant Women

The univariate analysis seen from the independent variable (Occupation) is the frequency distribution with Baby Weight Born in Medan Johor Puskesmas Work Area in 2019 by working and not working as shown in table 4.4:

Table 4.4

Frequency Distribution of Respondents Based on Occupation of Pregnant Women in Medan Johor Health Center Working Area in 2019

Profession	Frequency	Percent %
1. Does not work	23	76,7
2. Works	7	23,3
Total	30	100,0

Based on table 4.4 above it can be seen that from a total of 30 pregnant women respondents studied, the results obtained the majority of respondents who worked as many as 7 people (23.3%), and did not work as many as 23 people (76.7%).

### 2. Bivariate Analysis

#### Frequency distribution of upper arm circumference in pregnant women trimester III with birth weight babies

Bivariate analysis by comparing the cross distribution between upper arm circumference with birth weight in Medan Johor Health Center working area in 2019, found in the table below :

Based on table 4.5 above it was found that from 30 respondents, who had an upper arm circumference (Risk of Chronic Energy Deficiency) of 10 people (76.9%) who were underweight, normal birth weight babies 2,500-4,000 grams were 10 babies (37.3%) Weight of babies born less <2,500 grams as many as 3 babies (100.0%). While the respondents who have arm circumference (Not a Risk of Chronic Energy Less) as many as 17 people (100.0%) who have birth weight, normal birth weight babies 2,500-4,000 grams as many as 17 babies (63.0%) Weight of birth babies less < 2,500 grams of 0 infants (0.0%).

#### Frequency Distribution of Hemoglobin Levels in Trimester III Pregnant Women With Birth Weight of Babies

Bivariate Analysis by comparing the distribution of upper arm circumference and hemoglobin levels in trimester III pregnant women with birth weight babies born in Medan Johor Puskesmas work area in 2019.



Based on the above table, it can be explained that from 30 respondents, who have normal hemoglobin levels of 22 people (100.0%) who have birth weight, normal birth weight babies from 2500 to 4000 grams of 22 babies (81.5%) weight Infants born less <2,500 grams are 0 infants (0.0%). Whereas respondents who had mild hemoglobin levels were 5 people (62.5%) who had birth weight, normal birth weight 2,500-4,000 grams as many as 5 babies (18.5%) Birth weight less than 2,500 grams as many as 3 babies (100.0%).

### CONCLUSION

From the results of research on the relationship of upper arm circumference and hemoglobin levels in third trimester pregnant women with birth weight babies in the Medan Johor Medan Puskesmas Work Area in 2019 with 30 respondents the following conclusions can be drawn:

1. From the statistical test results obtained p value = 0.37 ( $p < 0.05$ ). This means that there is a significant relationship between upper arm circumference and birth weight.
2. From the statistical test p value = 0.02 was obtained ( $p < 0.05$ ). This means that there is a significant relationship between hemoglobin levels and birth weight.

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## **DIFFERENCES IN ROUGH MOTORIC DEVELOPMENT, LANGUAGE AND PROSOCIAL BEHAVIOR IN CHILDREN WHO KINDERGARTEN PROGRAM FULL DAY AND REGULAR**

**Isyos Sari Sembiring<sup>1</sup>**

sari.sembiring9@gmail.com  
STIKes Mitra Husada Medan

### **ABSTRACT**

**Aim/Objective:** The background of this research is Targeted SDGs of quality education by 2030 ensure that all children have access to quality early development, care, and pre-primary education.

The purpose of this study is to find out the differences in Roughmotoric, language and prosocial behavior development in children undergoing kindergarten and regular daytime kindergarten learning.

**Material and method** is Types and designs in this study use Mixed Methods namely Sequential Explanatory Designs. Population in Quantitative Research children aged 4-6 years who attend learning in kindergarten and regular programs, and qualitative research populations School Leaders, Teachers / Teaching Staff, parents. Quantitative research sample is 34 respondents in Full Day program Kindergarten and 38 people in Regular program and for Qualitative research are School Leaders, Teachers / Teaching Staff, parents, sample technique in Quantitative research is Total Sampling, and for Qualitative research is proportional simple random sampling. Examination using KPSP and prosocial behavior observation sheets in quantitative research, and in qualitative research using interview guides and focus group discussion guides. Data analysis in quantitative research uses Mann Whitney and qualitative research uses data reduction analysis techniques, data display and conclusion drawing / verification.

**Results** The results of quantitative research on bivariate analysis showed that there were significant differences between children undergoing full-day and regular program kindergarten. On p-value motor development was 0.008 ( $p < 0.05$ ), language p-value was 0.006 ( $p < 0.05$ ) and prosocial behavior p-value was 0.009 ( $p < 0.05$ ). Qualitative research results are not found any obstacles and efforts have been made to improve the quality of Roughmotoric development, language and prosocial behavior, so that it has benefited and achieved expectations of Roughmotoric development, language and prosocial behavior in children undergoing kindergarten full and regular programs.

**Conclusion :** The conclusion of this study is Roughmotoric, language, and prosocial behavior development. in children who undergo full-day kindergarten program is better than regular program kindergarten.

**Keywords:** Language development, rough motor development, prosocial behavior, kindergarten

### **INTRODUCTION**

Children as the next generation and managers of the future of the nation need to be prepared from an early age through the fulfillment of their rights, namely the right to live, grow, develop, and participate fairly in accordance with human dignity and protection from violence and

discrimination. As mandated in the Law. No. 23 of 2002 concerning Child Protection that guarantees and fulfillment of children's rights is the joint responsibility of parents, family, community and the State.

The background of this research is Targeted SDGs of quality education by 2030 ensure that all children have access to

quality early development, care, and pre-primary education. Children as the next generation and future manager of the nation need to be prepared early on through the fulfillment of their rights, namely the right to live, grow, develop, and participate appropriately in accordance with human dignity and dignity, as well as get protection from violence and discrimination. As mandated in the Constitution No. 23 of 2002 concerning Child Protection that guaranteeing and fulfilling children's rights becomes a joint responsibility of parents, families, communities and the State.

The population in Indonesia is a young population structure. This can be seen from the large number of young people who are still high. In 2013 the number of preschool children was 9,537,374 people (Ministry of Women Empowerment and Child Protection, 2013). In 2015, the population of preschool children decreased slightly, namely in 9,451,943 people (Kemenkes RI, 2016).

The purpose of this study is to find out the differences in Roughmotoric, language and prosocial behavior development in children undergoing kindergarten and regular daytime kindergarten learning. Growth and development experienced a rapid increase at an early age, from 0 to 5 years. This period is often also referred to as the "Golden Age" phase. Golden age is a very important time for pay close attention to the child's growth and development so that as early as possible can be detected if abnormalities occur.

In a study, Benjamin S. Bloom said the intellectual development of a child is very rapid in the early years of a child's life. About 50%, the variability of adult intelligence has occurred since the child was 4 years old, an increase in quality of 30%. Next occurs at the age of 4-8 years, and the rest in the middle or end of the second decade or when 8-18 years (Susilo, 2016).

According to Kurniawan, in 2016 it is estimated that 167 children in developing

countries experience growth delays. Meanwhile, Asia shows a drastic decline from 49% in 1990 to 28% in 2010, namely from 190 million children to 100 million children who experienced developmental delays. According to the Indonesian Ministry of Health in 2011, the incidence rate in Indonesia was 16% of children under five had impaired gross motor development and fine motor development, hearing loss, lack of intelligence and speech delays.

Failure to learn motor skills that are important to children or their peers will adversely affect the child's social and personal adjustment. Likewise, if a child wants to be accepted as a peer group member, failure to learn games and self-help skills that are very helpful for social acceptance will result in poor social and personal adjustment. Because children cannot do what their peer group is doing, they will feel inferior and because they cannot be accepted as members of the peer group, children will become bullies. (Hurlock, 2013).

Apart from the family environment, the community and school environment also play an important role in fostering children's development. In the community environment, children will adjust to their environment, if the environment is good then the children will be good. Conversely, if the environment around the child is not good, then the child will not be good. And in the school environment, the teacher is a figure who plays a very important role in educating and helping child development. Part of the child's time is spent in school, so the teacher must be able to take advantage of the time to help children prepare for an increasingly complex life (Asmira & Dwi, 2012).

For this reason, efforts are needed to minimize unfulfilled needs of early childhood. It is necessary to provide appropriate care and education for early childhood, this is related to the substitute role of temporary parents carried out by service institutions in the community. The phenomenon that occurs is often parents

ignore how education and care should be applied to early childhood (Hamdiani, Siti, & Basar, 2016).

Based on the results of a preliminary study at the Shool And Day Care Hocus Focus Family which was conducted by researchers by interviewing one of the teaching staff, it was found that each child has a different character, 2 people are less able to concentrate in the Regular Program Kindergarten and in the Full Day Kindergarten program, 1 person is obtained. who cries easily, tends to be quiet and 1 person always asks for help when they are on the move, 3 people always dominate every game they play and don't want to give in and in the Regular Program Kindergarten and 2 people do everything with need help and are less independent.

Meanwhile, for gross motoric development and language in the Shool And Day Care Hocus Focus Family, there are 3 children who cannot compose sentences correctly, 2 children in kindergarten regular programs and 1 child in full day programs. There are 2 children having difficulty maintaining their body balance when jumping, 1 child in the regular kindergarten program and 1 child in the full day program. For gross motor development, there are 2 children in the regular program kindergarten who still have difficulty jumping on 1 leg and have not been able to bounce the ball well. Based on the above studies and from preliminary studies, the researcher is interested in conducting research with the title Differences in gross motor development, language and prosocial behavior, there are children who undergo full day and regular Kindergarten learning.

## **MATERIAL AND METHODS**

Development is gradual change and expansion; the developmental stage of complexity from the lower to the higher; increasing and expanding one's capacity through growth, maturation and learning. Rough motor is a body movement that uses large muscles or most or all members of the body that are affected by the child's own

maturity, Language development is a form of language that uses articulation or words used to convey intent. Because talking is the most effective form of communication, Prosocial behavior (prosocial behavior) is any voluntary behavior that is shown to help others. In line with previous research put forward by Hammond regarding prosocial behavior of early childhood includes such as: sharing, helping, entertaining, and working together. Types and designs in this study use M Data collection techniques in quantitative research were carried out in the first stage of research which will be carried out in October at the School And Day Care Hocus Focus Family, namely by assessing gross motor development and language using KPSP and making observations using Observation Sheets to assess prosocial behavior.ixed Methods namely Sequential Explanatory Designs.

Bivariate analysis to examine differences in gross motor development, language and prosocial behavior in children undergoing full day Kindergarten learning with children undergoing regular Kindergarten-Kank learning. In the study, a normality test was carried out using the Kolmogrov Smirnov. To analyze the data in a bivariate manner, data testing was carried out by using the Mann-Whitney test on data that was not normally distributed, if the data were normally distributed then the statistical test used the Independent T Test, both of which have the same objective of comparing gross motor development, language. and prosocial behavior in children. Significant level ( $\alpha = 0.05$ ), guidelines in accepting the hypothesis: if the probability data ( $p$ )  $< 0.05$  then  $H_0$  is rejected and if the value ( $p$ )  $> 0.05$  then  $H_0$  fails to be rejected

Data collection techniques in qualitative research were carried out in the second stage of research, qualitative data collection was carried out by interviews and FGD (Focus Group Discussions) which were conducted on key informants who had been assigned as samples, namely school

leaders, teachers / teaching staff and parents of students at School And Day Care Hocus Focus Family, which is implemented per sample group.

The sample in this quantitative study were children aged 4-6 years who attended full-day and regular Kindergarten lessons in the School And Day Care Hocus Focus Family Program with a total of those who attended the learning. The sample in this quantitative study were children aged 4-6 years who attended full-day and regular Kindergarten lessons in the School And Day Care Hocus Focus Family Program with a total of those who attended the learning.

## RESULT

### A. The Results Of Quantitative Research

The results of quantitative research on bivariate analysis showed that there were significant differences between children undergoing full-day and regular program kindergarten

**Table 1.1 The Differences between the Full Day Kindergarten Group and the Regular Kindergarten Group on Gross Motor Development**

Gross Motor Development					
Group	N	Mann-Whitney U	Wilcoxon W	Z	p-value
Full Day Kindergarten Group	34	432,000	1027,000	-2,658	0,008*
Regular Kindergarten Group	38				

\*Mann Whitney test. 0,05 level of signifikan

Based on Table 1.1, it can be seen that the results of the analysis in the study using the Mann Whitney show a p-value of 0.008 (P <0.05). The conclusion is that H<sub>0</sub> is rejected, which means that gross motor development in the full day kindergarten group is better than gross motor development in the regular kindergarten group.

**Table 1.2 Differences of Full Day Kindergarten Groups and Regular Kindergarten Groups on Language Development**

Language Development					
Group	N	Mann-Whitney U	Wilcoxon W	Z	p-value
Full Day Kindergarten Group	34	425,000	1020,000	-2,727	0,006*
Regular Kindergarten Group	38				

\*Mann Whitney test. 0,05 level of signifikan

Based on the results of Table 1.2 above, the results of the analysis in research using the Mann Whitney show a p-value of 0.006 (P <0.05). The conclusion is that H<sub>0</sub> is rejected, which means that language development in the full day kindergarten group is better than in the regular kindergarten group.

**Table 1.3 The Differences between Full Day Kindergarten Groups and Regular Kindergarten Groups on Prosocial Behavior**

Prosocial Behavior					
Group	N	Mann-Whitney U	Wilcoxon W	Z	p-value
Full Day Kindergarten Group	34	438,000	1033,000	-2,626	0,009*
Regular Kindergarten Group	38				

Based on the results of Table 1.3 above, it can be interpreted that the results of the analysis in the study using Mann Whitney showed a p-value of 0.009 (P <0.05). The conclusion is that H<sub>0</sub> is rejected, which means that the prosocial behavior of the full day kindergarten group is better than the prosocial behavior in the regular kindergarten group.

### B. The Results Of Qualitative Research

The results of qualitative research on bivariate analysis showed that there were significant differences between children undergoing full-day and regular program kindergarten.

Opinion of informants about the constraints of implementing kindergarten learning programs full day and regular programs on differences in gross motor development, language and prosocial behavior. According to the informant, there were no obstacles in the implementation of the kindergarten learning program for the full day program against differences in gross motoric development, language and prosocial behavior, but found obstacles in implementing the regular program kindergarten learning program against differences in gross motoric development, language and prosocial behavior.

Opinion of informants about the efforts carried out in facing the constraints of implementing the kindergarten learning program full day and regular programs on differences in gross motor development, language and prosocial behavior. According to the informant, various efforts can be made to improve the quality of gross motoric development, language and prosocial behavior, namely by increasing creative learning programs and activities, updating, and quality time, quality of human resources and creative learning for programs, regular learning of differences in gross motor development, language and prosocial behavior. And efforts made to overcome obstacles in the implementation of full-day learning programs against differences in gross motor development, language and prosocial behavior are efforts to improve the quality of learning the results of the focus group discussion further improve the quality of parents and children

Informants' opinions about expectations in running kindergarten learning programs full day and regular programs on differences in gross motor development, language and prosocial behavior. According to the informant, the hope of running a full day and regular program is to improve the quality of gross motoric development, language and children's prosocial behavior.

Kindergarten learning ram lessons full day and regular program on differences in gross

motor development, language and prosocial behavior. According to the informant, the benefits of implementing the kindergarten learning program for the full day program on differences in gross motoric development, language and prosocial behavior are more beneficial when compared to implementation, the regular program kindergarten learning program is due to the limited time that children have who participate in regular and targeted programs. learning and academic achievement targets, so the opportunity for teachers to provide opportunities to simulate gross motoric development, language and prosocial behavior is limited when compared to the full-day kindergarten program because in the full-day program in the morning children participate in academic activities, and during the day they participate in activities which can improve gross motor development, language and prosocial behavior.

## CONCLUSION

The conclusion of this study is Roughmotoric, language, and prosocial behavior development. in children who undergo full-day kindergarten program is better than regular program kindergarten

Based on data on gross motoric development, language and prosocial behavior, most of the children who undergo full day kindergarten learning have high gross motoric and language development (exceeding their age) and high prosocial behavior, children undergoing regular program kindergarten learning have gross motor development and normal language (according to their age) and moderate prosocial behavior.

Based on data on gross motoric development, language and prosocial behavior in Based on data on gross motoric development, language and prosocial behavior in children undergoing regular program kindergarten learning have gross motor development and normal language (according to their age) and moderate prosocial behavior

Based on data on gross motoric development, language and prosocial behavior, there are significant comparisons in children undergoing full day and regular kindergarten programs.

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## THE EFFECT OF DISMENOREA CONCERNING THE REDUCTION OF PRIMARY AND SECONDARY MENSTRUAL PAIN INTENSITY ON ADOLESCENTS IN SMA TRISAKTI MEDAN NORTH SUMATERA

Ingka Kristina<sup>1</sup>, Marlina Simbolon<sup>2</sup>, Asnita,<sup>2</sup> Hertanta<sup>2</sup> Sari Nduma<sup>2</sup>

[ingka.kristina@gmail.com](mailto:ingka.kristina@gmail.com)

STIKes MITRA HUSADA MEDAN

### ABSTRACT

Menstruation is a natural and natural process in a woman's life. Dysmenorrhoea is pain in the abdomen that comes from cramping of the uterine muscles and occurs during menstruation without signs of pelvic infection or disease. The intensity of dysmenorrhoea can decrease after pregnancy or at the age of about 30 years.

The research design used a quasi-experimental method (Quasi Experiment) with a one group pre-post test design. This research was conducted at SMA TRISAKTI Medan, North Sumatra Province from April to October 2020. The population in this study were 311 female adolescent students and 113 students as samples. in accordance with the research flow diagram that has been determined from planning to the outcome. The sample in this study were 113 adolescents at TRISAKTI Medan Senior High School, North Sumatra Province using the Simple Random Sampling Technique for adolescents with dysmenorrhoea.

The results of univariate data show that the majority of female teenage students in class XII are 108 students (34.7) and a minority in class X are 100 (33%) and the majority of respondents are moderate pain as many as 53 students (46.9) and a minority of severe pain as much as 22 (19.5%). The results of the bivariate test used the Wilcoxon test to determine the average difference between menstrual pain and the value (p-value = 0,000), namely that there was an effect of dysmenorrhoea exercise on decreasing menstrual pain intensity, there were teenage girls in SMA TRISAKTI Medan. Dysmenorrhoea exercise is a complementary therapy that can be used by health facilities and the community to reduce menstrual pain and reduce the use of pain relievers.

**Keywords: Dysmenorrhoea Exercise, Menstrual Pain (Dysmenorrhoea)**

### INTRODUCTION

World Health Organization (WHO) (2014), adolescents are the population in the age range 10-19, and adolescence is divided into early adolescence (early adolescence) aged 10-13 years, middle adolescence (middle adolescence) aged 14-16 years and late adolescence (late adolescence) aged 17-19 years. Menstruation is a natural and natural process in a woman's life. Dysmenorrhoea is pain in the stomach that comes from uterine cramps and occurs during menstruation. Dysmenorrhoea can also be defined as painful menstruation that occurs without signs of pelvic infection or disease. The intensity of dysmenorrhoea

may decrease after pregnancy or at the age of about 30 years.

According to WHO data (2014), in Indonesia, the incidence of dysmenorrhoea is 55% among productive age, where 15% of them complain that their activities are limited due to dysmenorrhoea. Women have experienced dysmenorrhoea as much as 90%, this problem disturbs at least 50% of women during reproductive years and 60 - 85% in adolescence. Dysmenorrhoea results in many absences from school and office forcing sufferers to take a break, leaving work and their daily lifestyle.

According to the results of the Indonesian Demographic and Health Survey (IDHS) in 2017, the population



aged 10-19 years is 22.9% of the total population of Indonesia. The estimated number of menstruation incidence in Indonesia is as much as 55% of women of reproductive age who are tortured during menstruation. The incidence (prevalence) of menstrual pain is around 45.95%, among women of productive age.

Dysmenorrhoea exercise is a relaxation technique that can be used to reduce pain because during exercise, the brain and spinal cord will produce endorphins, a hormone that functions as a natural sedative and provides a sense of comfort (Rofli, 2013)

Dysmenorrhoea can be treated with pharmacological and non-pharmacological therapies. Pharmacological therapy includes analgesic drugs, hormonal therapy, prostaglandin nonsteroidal drugs, and cervical canal dilation (Prawiroharjo, 2009). Non-pharmacological therapies are warm compresses, exercise, Mozart therapy, and relaxation.

From the preliminary preliminary survey conducted at SMA TRISAKTI Medan in one month for each class, there were students who were absent (sick) on the grounds of experiencing pain during menstruation. Of the 10 female students who were interviewed when experiencing menstrual pain, the actions taken were sleeping to maintain the pain and taking pain relievers..

The problem of this research is the number of teenage girls who do not attend school and do not take part in learning because they experience menstrual pain. The research objective was to analyze the effect of dysmenorrhoea exercise on reducing the intensity of menstrual pain in female adolescents at SMA TRISAKTI Medan, North Sumatra Province.

## MATERIAL AND METHODS

This type of research is descriptive analytic with research design using quasi-experimental method (Quasi Experiment) with one group pre-post test design in

SMA TRISAKTI Medan, North Sumatra Province.

The population in this study were all female teenage students totaling 311 toddlers. Sampling with Simple Random Sampling, the total sample is 113.

Primary data is obtained directly from respondents.

## RESULT

This study was to analyze the effect of dysmenorrhoea exercise on menstrual pain in young women at SMA TRISAKTI MEDAN in 2020. This study was conducted from April to November 2020. The subjects of this study were all female students of TRISAKTI MEDAN high school who had experienced menstruation with a population of 311. Adolescents then carried out the sampling technique so that the sample amounted to 113 young women. The samples were taken according to the inclusion criteria and were willing to be research respondents. Research Location SMA TRISAKTI MEDAN.

**Table 4.1. Distribution of Respondent Characteristics at TRISAKTI High School in 2020**

No	Variable	Total	Percentage (%)
<b>Class</b>			
1.	X	100	33
2.	XI	103	33.1
3.	XII	108	34.7
		<b>311</b>	<b>100</b>
<b>Pain</b>			
1.	Severe Pain	22	19,5
2.	Moderete Pain	53	46,9
3.	Mild Pain	38	33,6
		<b>113</b>	<b>100</b>

Based on Table 4.1 the frequency distribution of respondents by class, it can be seen that of the 311 respondents the majority in class XII were 108 students

(34.7) and the minority in class X were 100 (33%).

The frequency distribution of respondents based on pain can be seen that of the 113 respondents the majority of moderate pain were 53 students (46.9) and the minority of severe pain was 22 (19.5%).

**Tabel 4.2 The results before and after dysmenorrhoea exercise in young women of TRISAKTI high school in 2020**

No	Variable	Mean	p-value
1.	Post Test	50,90	0,000
2.	Pre Test	26,70	

Based on the results of the calculation of each statement item, it was found that the total score at the initial test was higher than the final test. The results showed that there was a difference between dysminorrhea pain before doing exercise, and after exercising, the results of this hypothesis test using the Dependent T-test showed that the value of  $p = 0.00$  ( $p < 0.05$ ). The results of this study indicate that dysminorrhea is effective in reducing the pain scale during menstruation.

Mild sports exercises are highly recommended to reduce dysmenorrhoea. Exercise / gymnastics is a relaxation technique that can be used to reduce pain. This is because when doing sports / gymnastics the body will produce endorphins. Endorphins are produced in the brain and spinal cord. This hormone can function as a natural sedative produced by the brain, causing a feeling of comfort. The purpose of dysmenorrhoea exercises is to increase the tension of the muscles and blood vessels which can rarely reduce high blood pressure. With the administration of cold water compresses, an increase in the volume of blood flowing throughout the body, including the reproductive organs. With regular exercise or gymnastics, there is an increase in the volume of blood flowing throughout the body, including the

reproductive organs, thereby facilitating the supply of oxygen to blood vessels that experience vasocontraction, so that menstrual pain can be reduced.

This dysminorrhea is influenced by physical and psychological factors such as stress and the influence of the hormone prostatglandin. Therefore, by doing dysminorrhea exercises, the body will produce the hormone  $\beta$ -endorphin which functions as a natural tranquilizer in the human body which is produced by the brain which can reduce stress, produce a sense of comfort and reduce pain during menstruation. Increased levels of endorphins in the body can reduce pain during contractions. The dysminorrhea exercise can increase the endorphin level 4-5 times in the blood, so the more exercise it will be, the higher it will be. also levels of endorphins in the blood (Puji, 2012).

Adolescents with dysminorrhea will experience cramps and pain, especially in the abdominal part that is cyclic due to strong and long contractions in the uterine wall resulting in muscle fatigue and physical inactivity, it is necessary to exercise in the form of dysminorrhea exercises to relieve these cramps

One way to get rid of the cramps and pain is to do dysminorrhea exercises which are done with several movements. Muscle stretching or stretching is an exercise to maintain or develop flexibility or flexibility. Besides stretching the muscles or stretching can also improve posture and avoid pain that occurs in the neck, shoulders and back. The purpose of stretching is to help increase oxygenation or the exchange of oxygen and carbohydrates in cells and stimulate the drainage of the lymph system, thereby increasing muscle flexibility at its natural length and maintaining tissue flexibility and reducing muscle cramps and soreness. the gymnastic movements should be done systematically

The results of this study are also supported by the results of research

conducted by Sorman (2014), where in his research with the intervention group using the paired T test  $p = 0.00$  ( $p < 0.05$ ), while in the control group using the alternative test Wilcoxon found a value  $p = 0.276$  ( $p < 0.05$ ), which means that dysmenorrhea has an effect on reducing pain during menstruation.

The results of this study are also supported by the results of research conducted by Sorman (2014), where in the research he conducted with the intervention group using the paired T test  $p = 0.00$  ( $p < 0.05$ ), while in the control group using the alternative test Wilcoxon found a value  $p = 0.276$  ( $p < 0.05$ ), which means that dysmenorrhea has an effect on reducing pain during menstruation.

Dysmenorrhea exercise is a powerful way to reduce menstrual pain, besides that dysmenorrhea also has several benefits. The following are some of the benefits of dysmenorrhea exercise according to Wirakusumah (2004) in Laili (2012), the benefit is that research shows that women who exercise regularly and regularly can increase the secretion of hormones, especially estrogen. Regular exercise for young women releases beta endorphins (natural painkillers) into the bloodstream so that it can reduce dysmenorrhea, besides making the body feel refreshed and can cause feelings of pleasure. Regular exercise can increase the number and size of blood vessels, which supply blood to the body. The whole body including the reproductive organs so that blood flow is smooth and this can reduce the symptoms of dysmenorrhea. Increasing the volume of blood flowing throughout the body including the reproductive organs, this can facilitate the supply of oxygen to blood vessels that are experiencing vasoconstriction, so that menstrual pain can be reduced. Regular exercise makes the muscles much stronger because keratin, a chemical element contained in muscles, is activated, so that muscle growth is triggered, this is very good for supporting adolescent growth. Exercise

can increase the brain's ability to function optimally in adolescents, because sixth can stimulate blood circulation, so it can bring more oxygen to the brain, besides that neurotransmitter production will be triggered so that brain function can be maintained. Streamline body metabolism and help reduce the number of fat particles in the blood and slow down atherosclerosis (Laili, 2012).

## CONCLUSION

The results of the identification of dysmenorrhea pain that were felt during menstruation before doing dysmenorrhea exercise were found to be severe pain by 17 respondents (56.7%), after doing dysmenorrhea exercise, the average dysmenorrhea pain was moderate pain 15 respondents (50.0%) and on mild pain 12 respondents (40.0%).

Based on the results of the study, the results obtained  $p = 0,000$  smaller than  $p$  value 0.05, so it can be concluded that there is an effect of dysmenorrhea exercise on reducing pain during menstruation.

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STIKes Mitra Husada Medan

## THE EFFECT OF GIVING GINGER TO REDUCING HYPEREMESIS GRAVIDARUM IN PREGNANT WOMEN IN THE NANA DIANA'S CLINIC MEDAN CITY

**Kismiasih Adethia**, Maulida Sapna

[Kismiadethia92@gmail.com](mailto:Kismiadethia92@gmail.com)

STIKes Mitra Husada Medan

### ABSTRACT

**Background :** *Hyperemesis gravidarum* is a complaint experienced by pregnant women that interferes with daily activities, decreased appetite to cause disturbed nutrition to the fetus. Ginger is an herb that has long been known to prevent nausea and vomiting. The incidence of hyperemesis gravidarum in Indonesia in 2016 is 15-3% of the total number of pregnant women. Most causes of maternal death are bleeding pregnant 70-80% have morning sickness and as many (25,2%), infections (11,1%), sepsis (15%), hypertension in pregnancy (12%), complications of abortion are not safe (13%) and other causes (8%)

**Purpose :** This study aims to determine the effect of Ginger in Reducing *Hyperemesis Garvidarum* in Pregnant Women at Nana Diana Clinic Medan City in 2019.

**Method:** The design of this research is *Quasi eksperiment* with one group pre- post test design. The population of first trimester pregnant women is *Hiperemesis gravidarum*. The sample of each group is 32 respondents for each experimental and control groups.. The sample technique is total sampling. The examination uses observation sheet. Data analysis uses using paired t-test to find out the Effect of Giving Emprit Ginger in Reducing *Hyperemesis Garvidarum* in Pregnant Women.

**Results :** Average frequency of *Hiperemesis gravidarum* in the experimental group before given ginger as much as 2,38 times a day and decreased to 1,00 times a day. Bivariate test results showed that warm ginger drinks were effective in reducing nausea and vomiting in pregnant women (p value=0,000)

**Conclusion :** Giving warm ginger drink is effective in reducing the frequency of nausea and vomiting in first trimester pregnant women.

**Keywords:** Pregnant Women, *Hiperemesis Gravidarum*, Ginger

### Background

Hyperemesis gravidarum can be caused because an increase in Hormone Chorionic Gonodhotropin (HCG) can be a factor in nausea and vomiting. Increased levels of the hormone progesterone cause smooth muscle in the gastrointestinal system to relax so that motility decreases and the stomach becomes empty. Hyperemesis gravidarum, which is a complication of young pregnant women if it occurs continuously, can result in dehydration, electrolyte imbalance, and can result in carbohydrate and fat reserves being used up for energy purposes.

The target of reducing MMR is still used as a target for the 3rd Sustainable

Development Goals (SDGs). Ensuring a healthy life and encouraging welfare for all people of all ages, namely reducing MMR to below 70 per 100,000 KH, ending preventable infant and under-five mortality , by reducing the Neonatal Mortality Rate to 12 per 1,000 KH and the under-five mortality rate to 25 per 1,000 live births that must be achieved by 2030 <sup>1</sup>.

The incidence of hyperemesis gravidarum in Indonesia in 2016 was 1.5-3% of the total number of pregnant women (SDKI, 2016). Most of the causes of maternal death are bleeding. 70-80% of pregnant women experience morning sickness and as much as (25.2%), infection (11.1%), sepsis (15%), hypertension in

pregnancy (12%), complications of abortion are not safe (13%), other causes (8%), for example heart disease, diabetes, anemia, malaria and including hyperemesis gravidarum<sup>2</sup>. According to research conducted by Viviana in RSUD. Dr. Pirngadi in 2009, there were 34 cases (82%) of 280 pregnant women who experienced hyperemesis gravidarum.

Ginger is a plant with a million properties that have been known for a long time. Ginger is an important spice. The rhizome has many benefits, including as a spice in cooking, drinks, and candy and is also used in traditional medicinal herbs.

The first advantage of ginger is that it contains essential oils which have a refreshing effect and block the gag reflex, while gingerol can smooth the blood and the nerves work well. As a result, the tension can be melted away, the head is fresh, nausea and vomiting are suppressed. The arsi oil produces arsi arsi arroha, while the oleoresin causes a hot, sweaty taste<sup>4</sup>.

Based on the results of the initial survey at the Nana Diana Clinic, in April 2019 there were approximately 40 pregnant women who experienced hyperemesis gravidarum. The treatment given was vitamin B6, none of which were given other therapies such as the recommendation to drink Emprit ginger. Based on the description above, the authors are interested in researching directly on the effect of Ginger Emprit in reducing hyperemesis gravidarum in pregnant women.

**Metode**

This research is a quasi-experimental research with the design used is one group pretest-posttest design. This study uses a total sampling technique with a sample size of 32 people. Inclusion criteria The inclusion criteria were pregnant women who had hyperemesis gravidarum who were willing to be the research sample, liked ginger, and were not fasting, while the exclusion criteria were pregnant

women who had gastrointestinal disorders, such as stomach, appendicitis.

Researchers provide steeping ginger in the following ways: 1. Tools and materials for making ginger brew: ingredients: 250 mg, 50 ml hot water, tools: Grater, knife, pan, glass, spoon. 2. How to make a good and correct brew of ginger according to the predetermined amount: peel 250 mg of ginger and wash it thoroughly. Grate the peeled ginger until it is smooth. Prepare 50 ml of boiled water that is still warm. Enter the grated ginger into the still warm water. Wait for 15 minutes until the color turns brownish yellow, stirring occasionally. Then pour the ginger cooking water in the glass. After completing the brewing of ginger, the researchers provided the respondents with steeping ginger according to the time planned by the researcher, namely 4 times a day before eating. The location of this research is at the Nana Diana Clinic and the research began in June-August 2018. The data analysis technique used was the paired t test, which is a test carried out to compare the difference between two means of two pairs of samples with the assumption that the data is normally distributed.

**Table 4.1**  
**Respondent Characteristics Frequency Distribution Based on Gravida**

Gravida	Frequency	Precent
Primigravida	25	78,1
Sekundigravida	5	15,6
Multigravida	2	6,3
Jumlah	32	100

Based on table 4.1 above, it can be seen that maternal Gravida taken from 32 respondents is the majority of Gravida I mothers as many as 25 people (78.1%)

**Table 4.2**  
**The Difference in Frequency of Hyperemesis Gravidarum Before and After Ginger Emprit**

Hyperemesis Gravidarum Frequency	Amount	Mean	Median
Before	32	2,38	2,00
After	32	1,00	1,00

Based on table 4.2 above, it can be seen that the distribution of the mean frequency of maternal hyperemesis gravidarum taken from 32 respondents was 2.38 times / day with a median of 2.00 before being given emprit ginger and the mean frequency of maternal hyperemesis gravidarum taken from 32 respondents was 1.00 with median 1.00 after being given ginger emprit.

**Table 4.3**  
**Frequency Distribution of Respondents Characteristics Before and After Ginger Emprit**

Hyperemesis Gravidarum Frequency	Average	Standard Deviation	t Count	P Value
Before	2,38	0,554	14,051	0,000
After	1,00	0,000		

Based on table 4.3, it can be seen that the average or mean frequency of maternal hyperemesis taken from 32 respondents was 2.38 times / day with a standard deviation of 0.554 before being given emprit ginger. Meanwhile, the average or mean frequency of hyperemesis gravidarum of pregnant women taken from 32 respondents was 1.00 times / day with a standard deviation of 0.000 after being given emprit ginger. that is, there is a decrease in the frequency of Hyperemesis after offering ginger emprit. By using the paired t test, it was obtained t count 14.051 and p value = 0.000  $(\alpha = 0.05)$ , this indicates that there is a significant difference in the frequency of hyperemesis gravidarum of pregnant women before and

after being given emprit ginger at the Nana Diana clinic in 2019.

### Discussion

Respondents in this study were the majority of Gravida I mothers as many as 25 people (78.1%) and the minority Gravida III as many as 2 people (6.3%), meaning that gravida primi mothers experience hyperemesis gravidarum more often, this is in accordance that hyperemesis gravidarum occurs in about 60-80% of primigravidas and 40-60% in multigravidas<sup>5</sup>. The average frequency of maternal hyperemesis gravidarum taken from 32 respondents was 2.38 times / day before being given emprit ginger. While the average frequency of maternal hyperemesis gravidarum taken from 32 respondents was 1.00 times / day after being given emprit ginger. it means that there is a decrease in the frequency of Hyperemesis gravidarum after giving Ginger Emprit.

Essential oil content (1.50-3.50%), starch content (54.70%), fiber content (6.59%), ash content (7.39-8.90%)<sup>6</sup>. Ginger emprit contains 19 useful components for the body, one of which is gingerol, which is the most important compound and has been shown to have potent antiemetic activity by blocking serotonin, a chemical messenger compound. This compound causes the stomach to contract so that when it is blocked, the muscles of the digestive tract will relax and weaken so that the feeling of nausea is much reduced.

From the results of statistical tests using paired t test, it was concluded that there was a significant difference in the frequency of hyperemesis gravidarum of pregnant women before and after being given ginger with a value (p = 0.000).

The results of this study are consistent with the study of Vutyavanich et al (2001) which proved the effectiveness of ginger in pregnant women in overcoming Hyperemesis gravidarum, that the intervention group given ginger tablets

generally experienced a decrease in nausea and vomiting compared to the group given placebo tablets.

Ginger contains at least 19 components that are useful for the body, one of which is gingerol, which is the most important compound and has been shown to have potent antiemetic activity by blocking serotonin, a chemical messenger compound. This compound causes the stomach to contract so that when blocked, the muscles of the digestive tract will relax and weaken reducing nausea. So that pregnant women can continue their daily activities calmly and comfortably and concentrate fully on maintaining the pregnancy until it leads to delivery with healthy mothers and babies with a feeling of calm without being burdened by anything so that a smart nation generation candidate can be found<sup>7</sup>.

### Conclusion

The average Hyperemesis gravidarum among 32 respondents before giving Ginger Emprit at the Nana Diana Clinic, Medan City in 2019 was 2.38 times / day and after Ginger Emprit at the Nana Diana Clinic, Medan City in 2019 was 1.00 times / day.

The bivariate test results show that Ginger Emprit drink is effective in reducing Hyperemesis Gravidarum in pregnant women where  $p$  value = 0.000  $< (\alpha = 0.05)$ .

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## **THE EFFECT OF ISLAMIC RELIGIOUS MUSIC THERAPY ON THE DECREASE IN CHILDBIRTH PAIN IN PREGNANT WOMEN AT THE SAWIT SEBERANG HEALTH CENTER, SAWIT SEBERANG DISTRICT, LANGKAT REGENCY IN 2019**

**Ester Simanullang, Plora N F Sinaga**

estersimanullang13.es@gmail.com  
STIKes Mitra Husada Medan

### **ABSTRACT**

Pain is a psychological thing that occurs during childbirth, but many women feel the pain is worse than it should be because it is much influenced by environment, age, gender, fatigue, culture, and past experiences, where fear creates tension and panic. causes the muscles to become stiff and ultimately causes pain. Perceptions of pain that a person feels are different and depending on their adaptation during the labor process get a labor pain index based on the McGillPain Index (MPI) with an index scale of 0-50 for primiparous (38), multiparous (30), amputation (25), and cancer (28).

This study is a literature review that provides information on efforts to reduce labor pain in childbirth mothers. Sources in conducting this literature review include systematic search studies of computerized databases in the form of research journals totaling 8 journals. The writing of this scientific article uses the Vancouver bibliography.

The results showed the average (mean) + standard deviation (SD) of the score before doing Islamic religious music was (3.30) and after doing Islamic religious music music therapy the average dropped to (1.90) these results indicated a difference in the mean value. average after doing Islamic religious music music therapy. Based on the results of the data, it can be concluded that there are changes that occur after performing Islamic religious music such as feeling comfortable, relaxed, relaxed and reducing labor pains.

**Key words: Inpartu Mother, Islamic Religious Music Therapy, Decreased Labor Pain**

### **PRELIMINARY**

Childbirth is a process of releasing the products of conception (fetus and uri), which can live into the outside world, from the uterus through the birth canal or by other means. During labor, the uterus contracts and pushes the baby down to the cervix. This urge opens the cervix. After the cervix reaches complete opening, the contraction and push of the mother will move the baby down and out for a few days. The weight off the baby's head as it moves down the birth canal also causes pressure. (Danuatmaja, 2012)

The process of expelling the viable products of conception from the uterus through the vagina to the outside world is also known as childbirth. This process is divided into four stages, namely stage I, during the opening of the cervix or birth

canal, in which the cervix opens until there is an opening of 10 cm. Stage II is called when the fetus is released. Stage III is called the discharge and expulsion of the placenta. Stage IV early observation of post partum hemorrhage (Mochtar Rustam, 2011).

Labor begins when he develops mucus and blood mixed with blood. This blood-mixed mucus occurs because the cervix starts to open or flattens out, while the blood comes from the capillaries around the cervical canal due to a shift when the cervix is horizontal and open (Mochtar Rustam, 2011)

Labor pain is a physiological condition. Physiologically, labor pain begins to appear in the first stage of labor in the latent phase and the active phase, in the latent phase there is an opening up to 3

cm. In primigravida, the 1st stage of labor can last  $\pm$  20 hours, in multigravida  $\pm$  14 hours. Pain caused by uterine contractions and cervical dilation. The longer the pain you feel will get stronger, the peak of pain occurs in the active phase, where the complete opening is up to 10 cm. The intensity of pain during labor affects the psychological condition of the mother, the delivery process, and the well-being of the fetus

If the pain is not resolved quickly, it can cause death to the mother and baby, because pain causes the mother's breathing and heart rate to increase which causes blood flow and oxygen to the placenta to be disrupted. Handling and monitoring of labor pain, especially during the first stage of the active phase, is very important, because this is a determining point whether a mother in labor can undergo normal labor or end with an action due to complications caused by very severe pain.

Pain is a psychological thing that occurs during childbirth, but many women feel the pain is worse than it should be because it is much influenced by environment, age, gender, fatigue, culture, and past experiences, where fear creates tension and panic. causes the muscles to become stiff and ultimately causes pain. Perceptions of pain that a person feels are different and depending on their adaptation during the labor process get a labor pain index based on the McGillPain Index (MPI) with an index scale of 0-50 for primiparous (38), multiparous (30), amputation (25), and cancer (28).

Islamic religious music therapy is a method for relaxation techniques that is rarely applied in maternity nursing practice, even though Islamic religious music therapy is an effective distraction technique that can reduce physiological pain, stress and labor pains by diverting one's attention from pain. Islam also functions as a controller and is a technique to create a comfortable environment when women give birth in the delivery room.

Music Therapy can improve, restore and maintain physical, mental, emotional, social and spiritual health. This is because Islamic religious music has several advantages, namely because Islamic religious music is comfortable, calming, relaxing, structured and universal.

Based on data obtained from a preliminary study conducted at the Puskesmas Sawit Seberang, none of them used Islamic religious music therapy and therapy while breathing techniques were often used to reduce labor pain. Based on the researcher's observations of several health centers, the researcher chose the Sawit Seberang health center which has the potential to conduct research on the effectiveness of relaxation techniques.

## METHOD

In this study, researchers used a quantitative type or type of design with a quasi-quantitative experimental study with a pretest and posttest nonequivalent control group design, namely a study conducted by providing a treatment to determine the symptoms or effects that arise as a result of the treatment given to compare the results of Islamic Religious Music Therapy. with a control group similar in affecting labor pain. In this study, a pre-test and post-test will be carried out using the measurement of labor pain to compare the treated and untreated ones.

## DISCUSSION

### Labor Pain

The pain experienced during childbirth is unique to each mother, it can be influenced by several factors. Labor pain is a manifestation of the uterine muscle contractions. This contraction causes pain in the waist, stomach area and radiates to the thighs. These contractions cause the opening of the cervix. With this cervical opening, labor will occur.

**Islamic Religious Music Therapy**

Jean Houston, as quoted by Eric Jensen, stated that music can increase the molecular structure in the body. The body resonates at a stable molecular wavelength, whereas music has its own frequency that can resonate with or against our body's rhythm. When both of them resonate at the same frequency, they are in tune, can learn better, become more aware and alert.

**Benefits of Religious Music:** Increase devotion, Calm hearts and minds, Religious music, not only has an impact on the relationship between humans and God, but also has an impact on relationships among humans, namely strengthening the ties of friendship. If lived well, religious music can change one's behavior.

**Univariate Analysis**

This study describes the results of research on the effect of Islamic religious music therapy on reducing labor pain in mothers giving birth at the Sawit Seberang Public Health Center in 2019. Based on data obtained from May to July, there were 40 mothers giving birth, and divided into two groups, namely as many as 20 people for the treatment or experimental group, namely the group that received Islamic religious music therapy and 20 people for the control group, namely the group that did not get music therapy.

No	Mother's age	Amount	
		f	%
1	< 25 years old	6	30
2	25-35 years old	13	65
3	> 35 years old	1	5
Total		20	100

No	Education	Amount	
		f	%
1	SD	1	5
2	SMP	6	30
3	SMA	11	55
4	Diploma/Sarjana	2	10
Total		20	100

No	Profession	Amount	
		f	%
1	PNS	1	5
2	Swasta	6	30
3	Wiraswasta	9	45
4	Petani	2	10
5	Tidak Bekerja	2	10
Total		20	100

**Bivariate Analysis**

Subjects in this study were 40 women giving birth at the Puskesmas Sawit Seberang which were divided into two groups, namely the experimental group who received Islamic religious music therapy as many as 20 labor mothers and the control group who were not given music treatment of mothers giving birth as many as 20 mothers giving birth. This study was conducted to compare the effect of before and after music therapy treatment in reducing labor pain. To prove this, it is necessary to have pretest data on the level of the labor pain scale in women before giving treatment and post-test data on labor pain and after being given treatment and those who are not given treatment.

No	Variabel	Treatment Group		Control Group		Amount	
		N	%	N	%	N	%
1	Maternity Pain Level Scale						
	0 (Painless)	0	0	0	0	0	0
	1-3 (mild pain)	8	40	0	0	8	20
	4-6 (moderate pain)	8	40	4	20	12	30
	7-9 (Great Pain)	2	10	12	60	14	35
	10 (Pain Was Excruciating)	2	10	4	20	6	15
<b>Total</b>		20	20	100	20	40	100

Category	N	Mean	P
Before music therapy	20	26.9500	0.352
After music therapy	20	18.4500	0.115

The results of the data normality test before Islamic religious music used the Shapiro-Wilk test  $p = 0.352$  ( $p > 0.05$ ), it was concluded that the data were normally distributed. The results of the data normality test after doing Islamic religious music therapy using the Shapiro-Wilk test  $p = 0.115$  ( $p > 0.05$ ), it is concluded that the data is normally distributed. The results of data normality test calculations can be seen in the attachment.

After the normality test is carried out and the results are normally distributed, a paired t-test can be done. The results of the t-test, namely the results of the paired test-test showed  $p = 0.000$  ( $p < 0.05$ ) and  $t$  count = 11,768 > from  $t$  table = 9,200 which proved that there was an effect of giving Islamic religious music on the level of labor pain in mothers who gave birth for reduce labor pain.

## CONCLUSION

The results showed that the pain scale before being given Islamic religious music therapy to 20 patients in the pretest treatment group experienced moderate pain scale, severe pain scale and very severe pain scale. From 20 respondents, there were 2 (10%) moderate pain, 10 (50%) severe pain and 8 (40%) very severe pain. The results showed that the pain scale after being given treatment, namely Islamic religious music therapy during posttest in the treatment group, on average decreased with mild pain 8 (40%), moderate pain 8 (40%), severe pain 2 (10%) and very severe pain 2 (10%). The results of statistical tests with paired t-test for samples in one group (paired sample test) showed the value of  $p = 0.000$  ( $p < 0.05$ ) and  $t$  count = 11.768 >  $t$  table 9,200 which proved that there was a significant effect between before and after giving Islamic religious music on the level of

anxiety in mothers with childbirth pain at the Sawit Seberang Public Health Center, Palm Seberang District, Langkat Regency. Based on the results of the data, it can be concluded that there are changes that occur after performing Islamic religious music such as feeling comfortable, relaxed, relaxed and reducing labor pains.

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## RELATIONSHIP BETWEEN PREGNANT WOMEN'S KNOWLEDGE OF ANEMIA TO COMPLIANCE WITH CONSUMING Fe TABLETS IN UPT POLONIA HEALTH CENTER 2018

**Eka Falentina Tarigan**

[Ekafalentina5@gmail.com](mailto:Ekafalentina5@gmail.com)

STIKes Mitra Husada Medan

### ABSTRACT

Anemia in pregnant women is a problem that can threaten the condition of the mother and the fetus in the mother's womb. Anemia in pregnancy is a globalized problem. Judging from the magnitude of the problem, Anemia is the world's second leading cause of disability and thus one of the most serious public health problems. Based on data from the World Health Organization (WHO) in 2012, the prevalence of anemia in pregnant women in the world was 41.8%. The prevalence of anemia in pregnant women in Asia is 48.2%. This study aims to determine the relationship of knowledge of pregnant women about anemia and maternal compliance in consuming Fe tablets in the Polonia UPT in 2018. This study is a cross sectional analytic survey research. The population in this study was third trimester pregnant women at the Puskesmas Mamas. The number of samples in this study were taken in total sampling so that the sample numbered 32 people. The results obtained in this study the knowledge of pregnant women about anemia the majority of respondents had good knowledge of 14 people (43.8%), based on the respondents' compliance consuming Fe tablets the majority of respondents were obedient in consuming Fe tablets which were 22 people (68.8%). Based on bivariate analysis, there is a significant relationship between pregnant women's knowledge about anemia and adherence to consuming Fe tablets with a p value <of 0.05 (p = 0,000) in the Polonia UPT. It is hoped that health workers can provide information about anemia so that it can improve maternal compliance in consuming Fe tablets.

**Keywords: Knowledge, Mother, Compliance, Fe Tablets**

### Pendahuluan

Anemia in pregnancy is a condition of the mother with hemoglobin levels below 11 grams in the first and third trimesters or levels below 10.5 grams in the second trimester. Anemia in pregnant women can have a negative impact on both the mother and the baby to be born. Anemia increases the risk of complications of antepartum and postpartum hemorrhage which, if not handled properly, will be fatal, because pregnant women with anemia cannot prevent blood loss. Anemia in pregnant women is a problem that can threaten the condition of the mother and the fetus in the mother's womb. Anemia in pregnancy is a globalized problem. Judging from the magnitude of the problem, Anemia is the world's second leading cause of disability and thus one of the most serious public health problems.<sup>1,2</sup>

Based on the Ministry of Health Profile (2015) the five biggest causes of maternal death in Indonesia are bleeding (30.3%), hypertension in pregnancy (HDK) (27.1%), infections (7.3%), prolonged / obstructed labor (1 , 8%), and abortion (1.6%). According to Irianto (2014), that the high maternal mortality rate is closely related to anemia suffered during pregnancy. Of the five biggest AKI causes in Indonesia, four of them are impacts that occur when pregnant women experience anemia, namely bleeding, infection, prolonged / obstructed labor, and abortion.<sup>3</sup>

Based on data from the Ministry of Health (Kemenkes) in 2016 there were 350 mothers died per 100,000 people in Indonesia, an increase from 2015 where based on the 2015 Intercensal Population Survey (SUPAS), MMR recorded 305 305

maternal deaths per 100,000 live births. From the survey results above it still shows the high MMR in Indonesia whose achievements are still far from the target to be achieved according to SDGs (Sustainable Development Goals), namely reducing the MMR to below 70 per 100,000 KH.<sup>4</sup>

Anemia is one of the first indirect causes of maternal death, because anemia is a condition that arises before or during pregnancy which is exacerbated by physiological pregnancy.<sup>2</sup>

According to (Susenas and the Ministry of Health-Unicef Survey) in Indonesia it is reported that around 4 million pregnant women, half of them have nutritional anemia and one million have chronic energy shortages. Basic Health Research (Riskesdes) in 2013 the prevalence of anemia occurred in 50.1% of pregnant women in Indonesia, 36.4% of urban pregnant women and 37.8% of rural pregnant women.<sup>4,5</sup>

One effort made to reduce the prevalence of anemia is by administering 90 (Fe) iron tablets during pregnancy. The percentage of coverage of pregnant women who received 90 iron tablets in North Sumatra in 2016 was 73.31%, this decreased compared to 2015 which was 80.13% or there was a decrease of 6.82%. With this coverage presentation, the coverage of providing iron tablets during pregnancy has not been able to reach the national target set at 80%.<sup>6,7</sup>

## Method

This study uses a descriptive correlational research design with cross sectional approach which is a study of the relationship between two variables in a situation or group of subjects which is conducted to see the relationship between one variable with another variable, which aims to determine the relationship of knowledge of pregnant women about Anemia for maternal adherence in consuming Fe tablets at UPT Puskesmas Polonia in 2018. The subject of this study

was pregnant women Trimester III in June-July 2018 at UPT Puskesmas Polonia. Sampling was done in total sampling as many as 32 people. Data collection was conducted by the researcher directly using primary data, namely a knowledge questionnaire about anemia in pregnancy and a questionnaire for pregnant women in consuming Fe tablets. The data obtained will be analyzed using the Chi Square test with the SPSS program.<sup>8,9,10</sup>

## Result

**Tabel 4.1. Distribution of Respondent Characteristics at UPT Polonia Health Center in 2018**

No	Variable	Total	Percentage (%)
<b>Age</b>			
1.	> 20 tahun	4	12,5
2.	20-35 tahun	7	21,9
3.	> 35 tahun	21	65,6
<b>Total</b>		<b>32</b>	<b>100</b>
<b>Education</b>			
1.	Primary school	8	25,0
2.	Junior high school	6	18,8
3.	High school	9	28,1
4.	College	9	28,1
<b>Total</b>		<b>32</b>	<b>100</b>
<b>Profession</b>			
1.	Housewife	15	46,9
2.	General employees	7	21,9
3.	Entrepreneur	9	28,1
4.	Government employees	1	3,1
<b>Total</b>		<b>32</b>	<b>100</b>

From table 4.1 it can be seen that respondents based on the age of majority of respondents aged > 35 years are 21 people (65.6%), based on education the majority of respondents have high school education and College which is 9 people (28.1%) and based on work the majority of respondents have jobs as housewife are as many as 15 people (46.9%).

**Tabel 4.2 Distribution of Knowledge of Pregnant Women about anemia at UPT Polonia Health Center in 2018**

No	Variable	Total	Percentage (%)
<b>Knowledge</b>			
1.	Good	14	43,8
2.	Enough	11	34,4
3.	Less	7	21,9
<b>Total</b>		<b>32</b>	<b>100</b>

From table 4.2 it can be seen that based on the knowledge of pregnant women about anemia the majority of respondents have good knowledge of 14 people (43.8%).

**Tabel 4.3 Distribution of Compliance of respondents in consuming Fe tablets at UPT Polonia Health Center in 2018**

Knowledge	Compliance consume tablets fe				Total N	P value
	Obey		Not obey			
	N	%	N	%		
Good	14	43,8	0	0	14	43,8
Enough	7	21,9	4	12,5	11	34,4
Less	1	3,1	6	18,8	7	21,9
<b>Total</b>	<b>22</b>	<b>68,8</b>	<b>10</b>	<b>31,2</b>	<b>32</b>	<b>100</b>

From table 4.2 it can be seen that respondents' compliance with consuming Fe tablets the majority of respondents complied in consuming Fe tablets are 22 people (68.8%).

**Tabel 4.4 Relationship Knowledge of pregnant women about anemia with adherence to consuming Fe tablets at UPT Puskesmas Ponolia in 2018**

No	Variable	Total	Percentage (%)
<b>Obedience</b>			
1.	Obey	22	68,8
2.	Not obey	10	31,3
<b>Total</b>		<b>32</b>	<b>100</b>

Based on table 4.4 it can be seen that the majority of pregnant women who consume Fe tablets are those who have good

knowledge of 14 people (43.8%). The results of the Bivariate analysis stated that there was a relationship between the knowledge of pregnant women about anemia and adherence to consuming Fe tablets with a p value <of 0.05 (p = 0,000).

### Discussion

Provision of information about anemia will increase about their knowledge about anemia, because knowledge plays a very important role so that pregnant women obediently drink iron.<sup>11,12</sup>

The results of this study are in accordance with the opinion of ,which states that knowledge is a very important domain for the formation of one's actions. The formation of a person's behavior is determined by several internal factors, Including motivation, knowledge and perception of that person. According to the assumptions of researchers with good knowledge pregnant women will be more obedient in consuming Fe tablets so as to prevent anemia in pregnancy, in this case knowledge is very influential on maternal compliance in consuming Fe tablets compared to mothers who lack knowledge. Mother's knowledge about anemia which can not be influenced by education, low education will affect the absorption or acceptance of incoming information, for example information that is new to respondents known including Fe tablets, in addition, a person's education level will affect views on something that comes from outside. People who have higher education will give a more rational response compared to people who have little or no education. Information can be obtained from school and the surrounding environment the more information obtained by pregnant women about anemia, the more knowledge they have.<sup>13</sup>

Of the 32 respondents the majority of pregnant women who consumed Fe tablets were those who had good knowledge of 14 people (43.8%). The results of the Bivariate analysis stated that there was a relationship between the knowledge of pregnant women

about anemia and adherence to consuming Fe tablets with a p value <of 0.05 ( $p = 0,000$ ). Maternal compliance may be influenced by the quality of interactions with health workers as Korsch & Negrete (1972, in Niven, 2009) argues, that the quality of interaction between health professionals and patients is an important part of determining the degree of compliance.

With the interaction that is often expected more and more information about anemia and iron tablets they get so that those who check more often are more likely to be obedient. In other words, health workers do have an important role in motivating pregnant women to be obedient in taking iron tablets.<sup>13</sup>

According to Niven, 2002 in Susanti, 2013 the definition of adherence in consuming Fe tablets is the observance of pregnant women implementing the advice of health workers to consume Fe tablets. Compliance with consuming Fe tablets is measured by the accuracy of the number of tablets consumed, the accuracy of how to consume Fe tablets, the frequency of consuming Fe tablets per day.<sup>13,14</sup>

The results of the study were also obtained from interviews with Nakes at the Mamas Health Center that they always recommend that every pregnant woman who visits consume Fe tablets regularly and Nakes also provide information about the benefits and side effects of Fe tablets, but the limitations of Nakes is that they cannot monitor directly pregnant women in consuming Fe tablets.<sup>15,16</sup>

### Conclusion

Based on the knowledge of pregnant women about anemia the majority of respondents have good knowledge of 14 people (43.8%). Based on the compliance of respondents consuming Fe tablets, the majority of respondents complied in consuming Fe tablets, namely 22 people (68.8%).

Based on the relationship between knowledge of pregnant women about

anemia with adherence to consume Fe tablets, the majority of pregnant women who consume Fe tablets are those who have good knowledge, namely 14 people (43.8%). The results of the Bivariate analysis stated that there was a relationship between the knowledge of pregnant women about anemia and adherence to consuming Fe tablets with a p value <of 0.05 ( $p = 0,000$ ).

It is expected that Health Workers can provide information or counseling in order to increase the knowledge of pregnant women about anemia so that it can improve maternal compliance in consuming Fe tablets. It is hoped that the Polonia UPT Puskesmas report this research can be used as input for Mamas Puskesmas to provide education and health education to the community, especially pregnant women regarding anemia and the importance of consuming Fe tablets regularly. It is hoped that further researchers can continue this research with different variables.<sup>17</sup>

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## THE RELATIONSHIP BETWEEN EXCELLENT MIDWIFERY SERVICES WITH THE LEVEL OF KB ACCEPTORS SATISFACTION IN PUBLIC HEALTH CENTER HAMPARAN PERAK DELI SERDANG DISTRICT YEAR 2019

Herna Rinayanti Manurung

[hernayanti28@gmail.com](mailto:hernayanti28@gmail.com)

STIKes Mitra Husada Medan

### ABSTRACT

Excellent service or service excellence is a form of necessity or based on the results of a survey that was taken for 3 consecutive years, right in January - May 2017, there were 72 family planning receptors who came to the Hampanan Perak Puskesmas, in 2018 as many as 97 people, and years 2019, the number of kb acceptors regarding the coverage of midwifery who came at the Hampanan Perak Health Center was 110 people. Respondents were compiled by using proportional random sampling, that is, sampling of members of the population was carried out randomly without considering the strata in the population. From the results of the research, entitled Relationship of Excellent Service Midwifery Services with the Satisfaction Level of Family Planning Receptors at the Hampanan Perak Public Health Center, Deli Serdang Regency in 2019, there were 86 people. From the results of the study, it can be seen that based on the excellent service midwifery service taken from 86 respondents, the majority were in the good category as many as 65 people (75.6%), the poor category was 8 people (9.3%), the moderate category was 13 people (15, 1%). There is a significant relationship between service excellence relationship with the level of patient satisfaction at the Hampanan Perak Community Health Center by looking at the Asymp value. Sig (2-sided) = 0.009 less than 0.05. There is a relationship between service excellent midwifery service on the satisfaction of kb acceptors.

**Key Point:** KB acceptors, *Service Excellent*, Excellent Midwifery Services

### Introduction

Excellent service service in Indonesia from the 2015-2019 BKKBN RENSTRA which has reached the target, namely: first the decrease in the total birth rate to 2.38 per WUS aged 15-49 years from the 2018 target of 2.31 (percentage of achievement 97.1%) ; Second, the reduction in the drop-out rate to 25% from the 2018 target of 25% (percentage of achievement of 100%) and thirdly, an increase in the use of the Long-Term Contraception Method (MKJP) by 23.1% from the 2018 target of 22.3% (percentage of achievement 103.6%) (BKKBN, 2019)

Based on the District / City Health Profile for 2011-2016, the number of health centers in North Sumatra Province during 2011-2015, from 546 units in 2011 to 571 units in 2015. This occurred due to regional needs and the expansion of districts / cities.

North Sumatra Province has been able to provide health facilities according to these national standards (District / City Health Profile, 2016).

Referring to the district / city health profile in 2016, the number of outpatient and inpatient visits in all health centers in North Sumatra Province was 7,094,069 visits, this number has increased compared to 2015, namely 4,951,228 visits and in 2014, 4,237,132 visits.

Based on the results of the survey, which were taken for 3 consecutive years, right in January-May 2017, there were 72 family planning assistants who came to the Hampanan Perak Puskesmas, in 2018 there were 97 people, and in 2019 the number of kb acceptors regarding the coverage of midwifery who came at Pusekesmas Hampanan Perak as many as 110 people. And the reason for this patient to choose

Pusekesmas Hamparan Perak because health workers apply the 7S (Smile, Greetings, Greetings, Touch, Polite, Courtesy, Sympathy) in serving patients and there are some patients who come back for treatment. Therefore, researchers are interested in conducting research in that place.

### Method

The instrument is said to be valid if  $r_{count} > r_{table}$  for each item of statement submitted to the respondent. For the sample validity of about 30 samples, the value of  $r_{table}$  is = 0.361. This test is carried out when the statement item is more than 1

In this study, the validity test was carried out on the research instrument for Service Excellent variables and Patient Satisfaction Levels. From the results of calculations with the SPSS 25.0 for windows program, the data obtained from the validity test of all statement items are as follows:

**Tabel 4.2**  
Table of Validity Test Results

Variable	Statement (S)	r-count	r-table	Information
Service Excellent	S.1	0,644	0,361	Valid
	S.2	0,673	0,361	Valid
	S.3	0,755	0,361	Valid
	S.4	0,555	0,361	Valid
	S.5	0,736	0,361	Valid
	S.6	0,681	0,361	Valid
	S.7	0,830	0,361	Valid
	S.8	0,838	0,361	Valid
	S.9	0,549	0,361	Valid
	S.10	0,506	0,361	Valid
Satisfaction Level	S.1	0,586	0,361	Valid
	S.2	0,563	0,361	Valid
	S.3	0,642	0,361	Valid
	S.4	0,375	0,361	Valid
	S.5	0,718	0,361	Valid
	S.6	0,502	0,361	Valid
	S.7	0,585	0,361	Valid
	S.8	0,871	0,361	Valid
	S.9	0,606	0,361	Valid
	S.10	0,563	0,361	Valid

Source: Research Results 2019 (processed data)

Based on the table, it is obtained that the  $r_{count}$  number of all items  $> r_{table}$ , it can be said that all statement items are valid and can be used to conduct research.

### 4.2.2 Reliability Test

Statement items in a variable are said to be reliable or reliable if the respondent's answer is consistent or stable over time. A construct or variable is said to be reliable if it provides a Cronbach Alpha value  $\geq r_{table}$ , where  $r_{table}$  shows a number of 0.361. The reliability test results of the Service Excellent variable and the level of satisfaction can be seen in the following table

**Tabel 4.3**  
Table Test Result Realibilitas

Variable	Alpha Count	Decision
Service Excellent	0,931	Reliabel
Satisfaction Level	0,859	Reliabel

Source: Research Results 2019 (processed data)

Based on the table above, it can be seen that each variable between the Service Excellent variable and the Satisfaction Level has a Cronbach Alpha value  $\geq 0.361$ . Thus, the results of the reliability test on all variables are reliable

### 4.3 Research Data Analysis

**Tabel 4.4**

Frequency Distribution of Excellent Service Midwifery Respondents with Satisfaction Levels of Family Planning Acceptor Patients at the Hamparan Perak Public Health Center in 2019

Service Excellent					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less	8	9,3	9,3	9,3
	Enough	13	15,1	15,1	24,4
	Well	65	75,6	75,6	100,0
	Total	86	100,0	100,0	

(Source: Test Result SPSS 25,0 for windows, 2019)

From the table above, it can be seen that based on the excellent service midwifery service taken from 86 respondents, the majority were good categories as many as 65 people (75.6%), adequate categories were 13 people (15.1%), poor categories were 8 people (9.3 %)

**4.3.2 Respondents Frequency Distribution Based on Patient Satisfaction Level**

**Tabel 4.5**  
Frequency Distribution of Respondents for Midwifery Services Excellent Service With the Satisfaction Level of Family Planning Acceptor Patients at the Hamparan Perak Community Health Center in 2019

Satisfaction Nurse					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not satisfied	17	19,8	19,8	19,8
	satisfied	69	80,2	80,2	100,0
	Total	86	100,0	100,0	

(Source : Test Result SPSS 25,0 for windows, 2019)

From the table above it can be seen that based on the level of patient satisfaction, excellent service midwifery services are taken from 86 The majority of respondents were satisfied as many as 69 people (80.2%), 17 people (19.8%) were not satisfied

**4.3.3 Cross Frequency Distribution of Respondents Excellent Service**

**Tabel 4.6**  
Frequency Distribution of Excellent Service Midwifery Respondents with Satisfaction Levels of Family Planning Acceptor Patients at the Hamparan Perak Public Health Center in 2019

Service Excellent * Patient Satisfaction Crosstabulation						
Count		Patient Satisfaction				Total
		No Satisfaction		Satisfaction		
		F	%	F	%	
Service Excellent	Less	5	5,81	3	3,48	8
	Enough	1	1,16	12	13,95	13
	Well	11	12,8	54	62,8	65
Total		17		69		86

(Source : Test Result SPSS 25,0 for windows, 2019)

From the table above, the results of the analysis between the relationship between service excellent midwifery service and the level of patient satisfaction, of the 86 respondents who were not satisfied with the service excellence in the poor category were 5 people (5.81%), the respondents who were not satisfied with the excellent service category were 1 (1.16%), respondents who were not satisfied with the excellent service category were 11 people (12.8%).

Respondents who were satisfied with service excellence in the poor category were 3 people (3.48%), respondents who were satisfied with the excellent service category were 12 people (13.95%) and respondents who were satisfied with the excellent service in the good category were 54 people ( 62.8%).

**4.3.4 Analisis Koefisien Kontingensi Chi-Square**

Based on the results of the chi square test statistical test using the SPSS 25.0 for windows calculation system, the following table shows :

**Tabel 4.7**  
Test Result Chi-Square

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10,738 <sup>a</sup>	2	,005
Likelihood Ratio	8,769	2	,012
Linear-by-Linear Association	4,909	1	,027
N of Valid Cases	86		

a. 2 cells (33,3%) have expected count less than 5. The minimum expected count is 1,58.

(Source : Test Result SPSS 25,0 for windows, 2019)

Based on table 4.5 above, the Asymp.sig (2-sided) value on Pearson Chi-Square is 0.005 and it is smaller than 0.05,

this indicates that  $H_0$  is rejected and  $H_a$  is accepted. In other words, it can be concluded that there is a significant relationship between the two variables.

#### 4.4 Discussion

From the results of research on the Relationship between Midwifery Services and the Satisfaction Level of Family Planning Receptors at the Hamparan Perak Health Center in 2019, are as follows :  
Based on Service

##### *Service Excellent*

From the data obtained based on the excellent service midwifery service taken from 86 respondents, the majority were in the good category as many as 65 people (75.6%), the less category was 8 people (9.3%), kategori cukup sebanyak 13 orang (15,1%).

From the research results.. This is in accordance with Kasmir (in Pasolong, 2010: 133), saying that good service is a person's ability to provide services that can provide satisfaction to customers with a specified standard (Azlina, 2012).

##### 4.4.1. Based on the Patient Satisfaction Level

From the data obtained based on the level of patient satisfaction at the Hamparan Perak Public Health Center, the majority of which were in the satisfied category, namely 69 people (80.2%), and 17 people (19.8%) dissatisfied categories. This shows that there is still a need to improve services from the Hamparan Perak Puskesmas to achieve a higher level of satisfaction from the respondents. Quoted from the journal, according to Oliver, defines satisfaction as the level of feeling.

Based on the excellent service midwifery service with the satisfaction level of family planning acceptors patients, it can be seen from the cross table or Chi-Square test that the results of the analysis are the relationship between service excellent midwifery service and the patient satisfaction level of 86 respondents who

were dissatisfied with service excellence in the less category of 5 people ( 5.81%), respondents who were not satisfied with the excellent service category were 1 person (1.16%), respondents who were not satisfied with the excellent service category were 11 people (12.8%).

#### Conclusions And Recommendations

##### Conclusions

- Based on the results of research on the Relationship of Excellent Service Midwifery Services with the Satisfaction Level of Family Planning Receptors at the Hamparan Perak Public Health Center, Deli Serdang Regency in 2019, the following conclusions were obtained:
- From the research results it can be seen that based on the excellent service midwifery service taken from 86
- The majority of respondents were in good category as many as 65 people (75.6%), poor category as many as 8 people (9.3%), enough category as many as 13 people (15.1%).
- From the results of the study it can be seen that based on the level of service excellent midwifery service patient satisfaction taken from 86 respondents the majority are satisfied categories as many as 69 people (80.2%), 17 people are not satisfied category (19.8%).
- Of the 86 respondents who were not satisfied with the service excellence in the poor category were 5 people (5.81%), the respondents who were not satisfied with the excellent service category were 1 person (1 , 16%), respondents who were not satisfied with the excellent service category were 11 people (12.8%). Respondents who were satisfied with service excellence in the poor category were 3 people (3.48%), respondents who were satisfied with the excellent service category were 12 people (13.95%) and respondents who were satisfied with the excellent service in the good category were 54 people ( 62.8%).

- f. There is a significant relationship between service excellence relationship with the level of patient satisfaction at the Hamparan Perak Community Health Center by looking at the Asymp value. Sig (2-sided) = 0.009 less than 0.05

### Recommendations

Based on the description that has been explained in the conclusion of the research results above, it is recommended to all parties, including:

- a. It is hoped that this research can be used as information material and reading material or literature, especially students of STiKes Mitra Husada Medan and students can continue research with different variables and use a correlation approach so that it is even more useful in increasing understanding and knowledge of service excellence with patient satisfaction levels.
- b. It is hoped that health workers can improve and improve service quality by always paying attention to patients and listening to patient complaints

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## THE EFFECT OF FAMILY-BASED EDUCATION ON KNOWLEDGE AND ATTITUDE ABOUT EXCLUSIVE BREASTFEEDING

Tetti Seriaty Situmorang, Magdalena br Barus

[seriatitetti@gmail.com](mailto:seriatitetti@gmail.com)  
STIKes Mitra Husada Medan

### ABSTRACT

During golden period, the brain experienced the fastest development in the history of its life, up to 80%. Breast milk is the best food in early life. Exclusive breastfeeding coverage has not been achieved. Several reasons are the cause, namely: the length of time when the milk comes out the first time you feed, the family /community perception that the cause of the baby crying after being breastfed is because there is not enough milk so that it needs to be given formula milk. This study aims to identify the effect of family-based education on exclusive breastfeeding. The research design used a quasi experiment, pre test and post test with control group design. Starting with pre-test on both groups of respondents, then in the intervention group family-based education was carried out (involving the husband/1 other family member) about exclusive breastfeeding for 3 meetings. The third stage carried out a post test in both groups. The number of respondents was 30 people each group of 15 breastfeeding mothers. Data analysis used Wilcoxon test and Mann Whitney test. The results showed that there was a significant influence between family-based education on exclusive breastfeeding (p value = 0.028). Naturally, healthy newborn babies can breastfeed, the more frequent breastfeeding of breast milk products will increase so that exclusive breastfeeding is possible to achieve, the knowledge and attitudes of mothers and their families need to be improved. It is recommended that family-based education be implemented to increase the achievement of exclusive breastfeeding.

**Key Words:** family, education, exclusive breast milk

### Introduction

The golden period or golden period lasts from the time the child is in the womb to the age of two. In this period the brain has experienced rapid development in its life history, namely up to 80%. After birth, the brain nerve cells do not increase anymore, but the number of connections between the brain nerves continues. One brain nerve cell can establish connections with 20,000 other brain nerve cells. The more the number of nerve cell connections, the smarter the brain is (Soetjningsih, 2013). The number of connections between brain nerve cells is determined by nutrition and stimulation. The failure of nutritional intake during this period has difficult, even irreversible, long-term effects (Arief, 2011).

Nutritional problems for infants in North Sumatra: thin babies who receive additional food (36.7%). Coverage of

exclusive breastfeeding (33.0%), IMD <1 hour (30.3%), breastfeeding up to 5 months (48.6%). The prevalence over malnutrition and malnutrition is at the national prevalence. Infants and toddlers aged 0-23 months are malnourished (2.8%), malnourished (8.6%), aged 0-59 months, malnutrition (3.1%), malnutrition (10.1%) (BB / U indicator). Nutritional status with the TB / U index shows the incidence of stunting, at: 0-23 months of age, very short (8.0%), short (11.1%), aged 0-59 months, very short (9.3% ),, short (15.1%). Nutritional status with a weight loss index / TB age 0-23 months is very thin (5.2%), thin (9.3%), aged 0-59 months is very thin (4.3%), thin (7.7%) . Stunting in early life will have a negative impact on health, cognitive, and functional as adults (SU, 2018).

Breast milk is the best food at the beginning of life (0-6 months), then breast milk plus complementary foods until the age of two years. The coverage of exclusive breastfeeding at Medan Johor Health Center has not been achieved. Several things are the cause, namely: When the milk comes out the first time you feed, the family / community's perception that the cause of the baby crying after being breastfed is because there is not enough milk so that formula milk is needed.

Healthy Indonesia program with a family approach that the family approach is the love of the program. Family-based education can increase the intention to change health behavior (Ministry of Health, RI, 2016). Family-based educational interventions about offering exclusive breastfeeding to comply with exclusive breastfeeding to optimize child development in the golden period need to be done.

## Method

This research is a quantitative study using quasi-experimental pre-test and post-test with a control group design, to analyze the effect of family-based education on offering exclusive breastfeeding. Researchers will provide family-based education about exclusive breastfeeding to the intervention group and the control group will not be given family-based education as in the intervention group. Prior to the intervention, the intervention and control groups were carried out before the test, then carried out family-based education. After 3 times family-based educational activities with 2 month intervals were carried out, then a post test was carried out on both groups using the same questionnaire instrument as the pre test and measuring exclusive breastfeeding.

## Result

### 1. Univariate Analysis

#### 1.1 Respondent's Characteristics

The sample in this study was 30 people consisting of 2 groups, namely 15

breastfeeding mothers who were given family-based education about exclusive breastfeeding by researchers who were the intervention group and 15 breastfeeding mothers who were not given family-based education about exclusive breastfeeding which was the control group.

**Table 1. Frequency Distribution of Respondent Characteristics**

No	Characteristics	Group (n=30)				Total n	
		Intervention		Control			
		n	%	n	%	n	%
1	Age (years):						
	<20	2	13,33	0	0	2	6,67
	20-35	11	73,34	13	86,67	24	80
	>35	2	13,33	2	13,33	4	13,33
	Total	15	100	15	100	30	100
2	Education:						
	Primary School	1	6,67	2	13,33	3	10
	Junior High School	7	46,67	3	20	10	33,33
	Senior High School	4	26,66	6	40	10	33,33
	College	3	20	4	26,67	7	23,34
	Total	15	100	15	100	30	100
3	Profession:						
	Work	5	33,33	7	46,67	12	40
	Does not work	10	66,67	8	53,33	18	60
	Total	15	100	15	100	30	100
4	Parity:						
	1	4	26,67	5	33,33	8	26,67
	2	6	40	3	20	9	30
	>2	5	33,33	7	46,67	13	43,33
	Total	15	100	15	100	30	100

The age characteristics of the two groups were dominated by 20-35 years, as many as 11 people (73.34%) in the intervention group and 13 people (86.67%). Educational characteristics in the intervention group were dominated by the junior high school category, namely as many as 7 people (46.67%), then the high school category was 4 people (26.67%), then the PT category was 3 people (20%) and 1 person (6.67%) ) SD category. In contrast to the control group, education was dominated by the SMA category, namely 6 people (40%), followed by the PT category as many as 4 people (26.67%), then the SMP category 3 people (20%) and SD as many as 2 people (13, 33%). There were also differences in job characteristics, the intervention group was dominated by the non-working category as many as 10 people (66.67%), 5 people who worked (33.33%) while in the control group the difference in the number of respondents who worked and



did not work a little, namely 8 people (53.33%) who did not work and 7 people (46.67%) who worked. Parity characteristics in the intervention group were dominated by parity category 2, namely 6 people (40%), then the parity > 2 category was 5 people (33.33%) and the least parity category 1 was 4 people (26.675), while in the control group Parity characteristics were dominated by parity > 2, namely 6 people (46.67%), then parity 1 was 5 people (33.33%) and parity 2 was 3 people (20%). From the description above, the distribution of respondents appears to be even in each characteristic.

### Result of Pre Test and Post Test of Knowledge and Attitude of Respondents

**Table 1. Distribution of Pre-Test and Post-Test Frequency of Knowledge and Attitudes in Groups Intervention and Control Groups**

No	Variable	PRE TEST groups (n=30)				POST TEST Groups (n=30)			
		Intervention		Control		Intervention		Control	
		n	%	n	%	n	%	n	%
1	Knowledge:								
	Well	6	40	7	6,77	13	86,67	7	6,67
	Less	9	60	8	53,33	2	13,33	8	53,33
	Total	15	100	15	100	15	100	15	100
2	Attitude:								
	Positive	10	66,67	9	60	14	93,33	10	66,67
	Negative	5	33,33	6	40	1	6,67	5	33,33
	Total	15	100	15	100	15	100	15	100

There was an increase in the percentage of good knowledge in the intervention group, from 40% in the pre test to 86.67% in the post test, while in the control group there was no change in knowledge at all, the percentage was still 46.67% during the pre test and post test. There was an increase in positive attitudes in the intervention group and the control group. The percentage increase in positive attitudes in the intervention group from 66.67% in the pre test to 93.33% in the post test, this is greater than the control group, namely 60% in the pre test to 66.67% in the post test.

### Exclusive Breastfeeding in the Intervention and Control Groups

**Table 2. Exclusive breastfeeding in the intervention and control groups**

No	Exclusive Breastfeeding	Intervention		Control	
		N	%	N	%
1	Exclusive	12	80	6	40
2	Not exclusive	3	20	9	60
	Total	15	100	15	100

The percentage of the intervention group that gave exclusive breastfeeding was up to two times that of the control group.

## 2. Bivariate Analysis

### 2.1 Differences in Knowledge and Attitudes of Pre-Test and Post-Test in the Intervention Group

**Table 4. The results of the test for differences in knowledge and attitudes of pre-test and post-test in the intervention group using the Wilcoxon test**

Group	Variable	Pre Test Mean Runk	Post Test Mean Runk	Z-Test	p value
Intervention	Knowledge	4,00	0,00	-2,646	0,008
	Attitude	2,50	0,00	-2,000	0,046
Control	Knowledge	1,50	1,50	0,000	0,378
	Attitude	4,00	4,00	1,000	0,705

The data table above illustrates the test of differences in knowledge and attitudes pre-test and post-test in the intervention group using the Wilcoxon test. It is known that the p value of the knowledge variable is 0.008 and the attitude is 0, 046 (<0.05), which means that there are significant differences in the knowledge and attitude variables in the pre-test and post-test in the intervention group before and after being given family-based education about exclusive breastfeeding.

## 2.2 Differences in Knowledge and Attitudes of Pre Test and Post Test in the Control Group

**Table 5. The results of the test for differences in knowledge and attitudes of pre-test and post-test in the control group using the Wilcoxon test**

Variable	Pre Test		Post Test	
	Mean Runk	Mean Runk	Z-Test	<i>p</i> value
Knowledge	1,50	1,50	0,000	0,378
Attitude	4,00	4,00	1,000	0,705

The data table above illustrates the test of differences in knowledge and attitudes pre-test and post-test in the control group using the Wilcoxon test. It is known that the *p* value of the knowledge variable is 0,378 and the attitude is 0,705 ( $> 0.05$ ), it means that there is no significant difference in the knowledge variable and the attitude variable in the pre-test and post-test in the control group

## 2.3 Differences in exclusive breastfeeding in the control and intervention groups

**Table 6. Test results of differences in exclusive breastfeeding in the control and intervention groups using the Mann Whitney Test.**

Variabel	Kontrol		Intervensi	
	Mean Runk	Mean Runk	Z-Test	<i>p</i> value
Exclusive Breastfeeding	12,50	18,50	-2,198	0,028

The data table above illustrates the difference test of exclusive breastfeeding in the control and intervention groups using the Mann Whitney Test. It is known that the *p* value is 0.028 ( $< 0.005$ ), which means that there is a significant effect of family-based education on exclusive breastfeeding.

## Discussion

Exclusive breastfeeding is giving only breast milk, without the addition of other fluids such as formula milk, honey, tea water and without other food additives such

as bananas, papaya, biscuits, porridge, rice and team (Roesli, 2012).

The results showed the Wilcoxon test in the intervention group for knowledge there was *p* value = 0.008 and an attitude of 0.046 ( $< 0.05$ ) meaning that there were significant differences in the knowledge and attitude variables in the intervention group before and after being given family-based education about exclusive breastfeeding. Whereas in the control group the *p* value was obtained for the knowledge variable 0,378 and the attitude 0,705 ( $> 0.05$ ) meaning that there was no significant difference in the knowledge and attitude variables in the pre test and post test in the control group.

In the pre-test, the percentage of mothers with good knowledge in the intervention group was 6 people (40%) less than the control group as many as 7 people (46.67%), but in the post test there was a significant increase where the percentage of respondents in the intervention group with Good knowledge category became 13 people (86.67%) while in the control group there was no change. In the intervention group there was an increase of 46.67%, in the control group 0%.

There was also a significant increase in the percentage of positive attitudes in the intervention group, namely from 10 people (66.67%) in the pre test to 14 people (93.33%) in the post test. In the control group, there was also an increase in positive attitudes but the percentage was very small, from 9 people (60%) in the pre test to 10 people (66.67%) in the post test.

Education on exclusive breastfeeding is carried out on a family basis, namely providing education to breastfeeding mothers accompanied by one of the mother's closest relatives. The mindset of mothers and their families is directed that the first 1000 days of life (from pregnancy until the baby is 2 years old) is an urgent period, a period that greatly determines the quality of children's resources in the future. Breast milk is the best food that cannot be

replaced and is very economical and practical

Assistance is a form of real support for mothers in the process of giving exclusive breastfeeding. The participation of family members in providing this education becomes meaningful participation for mothers to solve problems that mothers experience in breastfeeding so that they are able to carry out their role optimally.

This is in accordance with the research of Menon et al. (2001) which revealed that the decision making in giving exclusive breastfeeding by mothers was influenced by the role (support) of the family. Support to breastfeeding mothers is an integral part of the family role. The importance of the role of the family has been recommended at the High Level Conference on Child Welfare (1990), that all families (especially husbands) know the importance of supporting women in breastfeeding tasks only in the first 4 to 6 months of the child's life (Roesli, 2009).

During the breastfeeding process, the two groups experienced problems commonly experienced by breastfeeding mothers, among others, blistered nipples, insufficient breast milk. Mothers in the intervention group have known that chafed nipples can occur due to inappropriate breastfeeding techniques and insufficient breast milk can be increased by providing mothers with nutritional intake that can increase milk production such as katuk leaves, suppressing stress levels that mothers experience, helping mothers feel as comfortable as possible during the breastfeeding period. With correct and sufficient knowledge, the mother's attitude when dealing with problems or obstacles in the breastfeeding process, the mother is calmer and knows what to do. There are also family members who remember and help them to overcome the existing problems in order to have adequate nutritional intake for their children.

This is in accordance with the research of Albernaz (2008) that lactation counseling (education) and breastfeeding can prevent

early arteries and are effective in increasing exclusive breastfeeding (Roesli, 2009).

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## RELATIONSHIP BETWEEN KNOWLEDGE AND ADOLESCENT ATTITUDES TOWARDS COMMUNICABLE SEXUAL HIV / AIDS DISEASES IN SENIOR HIGHT SCHOOL TIGAPANAH

Rosmani Sinaga, Sarinem Barus, Srilina Br Pinem

[rosmanisinaga11@gmail.com](mailto:rosmanisinaga11@gmail.com)  
STIKes Mitra Husada Medan

### ABSTRACT

Reproductive health is a state of complete physical, mental, and social well-being, which is not merely free from disease or disability, in all matters relating to the reproductive system, and its functions and processes.

The aim of adolescent reproductive health programs is to help adolescents to understand and be aware of the knowledge so that they have healthy attitudes and behaviors and are certainly responsible for their relationship with reproductive life issues.

The purpose of this study was to determine the relationship of knowledge and attitudes of adolescents to HIV / AIDS sexually transmitted diseases in Senior High School Tigapanah in 2019. Sexually transmitted diseases (STDs) are disorders / diseases that are transmitted from one person to another through direct contact or sexual relations.

The total population in SMA Negeri 1 Thirteen is 66 people with details of 33 class X people, 33 class XI people, the authors take some individuals from a population. And the research results obtained  $p = 0,000$  there is a relationship between knowledge and attitudes of adolescents towards HIV / AIDS sexually transmitted diseases in Senior High School Tigapanah.

**Keywords:** Teenagers, Sexually Transmitted Diseases, HIV / AIDS

### Introduction

Reproductive health is a state of complete physical, mental and social well-being, which is not only free from disease or disability, in all matters relating to the reproductive system, as well as its functions and processes. The aim of the adolescent reproductive health program is to help adolescents understand and be aware of this knowledge so that they have healthy attitudes and behaviors and are of course responsible in relation to reproductive life problems. Efforts can be made through advocacy, promotion, IEC, counseling and services to adolescents who have special problems as well as providing support for positive youth activities (Lestari, dkk, 2014).

In Eastern Europe and Central Asia the number of people dying from AIDS increased from 7,800 to 90,000, in the Middle East and North Africa it increased from 22,000 to 35,000, in East Asia it also

increased from 24,000 to 56,000 (WHO, *Progress Report* 2011).

Many adolescents have premarital sexual relations as a result of being forced because they are "victims". First, becoming victims of culture, the second parent who married as early as possible. On a national level, the statistics for young marriage are 12 percent. In fact, in some areas it exceeds this figure. In East Java (39.43%), South Kalimantan (35.48%), Jambi (30.63%), West Java (36%), and Central Java (27.84%). Early adolescent marriage occurs because the role of parents is very dominant in determining child marriage (especially girls). This is because children are considered as "property" of their parents so that children must be filial and obedient to their parents. orangtua (Lestari,dkk, 2011).

Whatever the cause of sexual behavior by adolescents before their time (not yet old enough / early marriage, unmarried) will greatly affect the quality of

their reproductive health. For girls under the age of 20 who have sexual intercourse is more risky than for women over the age of 20. This is because the reproductive organs have not functioned optimally so that it facilitates the development of the human papilloma virus which is at risk for uterine cancer, sexually transmitted diseases, reproductive tract infections and HIV or AIDS. (Siti,2010).

The UNICEF survey shows that 41% of adolescents do not know how to recognize people who have HIV / AIDS. With these conditions, it is not too surprising that at the national level, until June 2004, the number of HIV / AIDS cases among adolescents reached 30% of all cases (1,252 out of 4,159) .16 The results of a national survey, conducted by YAI (Indonesian AIDS Foundation), shows that 2,150 people infected with HIV / AIDS and 36% are students (Siti,2010).

The increasing rate of sexual transmission of HIV / AIDS, especially through sexual intercourse, has replaced needle-stick transmission among injecting drug users as the main route of transmission of HIV in Medan city. Increased transmission through heterosexual groups has made it more prone to transmission to low-risk groups such as housewives and baby (Wordpress, 2010).

Based on a research survey conducted at SMA Negeri 1 Tigapah, the authors see the lack of knowledge of adolescents about STDs (Sexually Transmitted Diseases) which is advancing very fast with the current prevalence of adolescent problems, not only in developing countries, for the writer would like to research what Of course, the cause of this, one of which is the knowledge of adolescents about infectious diseases of HIV / AIDS. AIDS. "

**Method**

The type of research used is qualitative with a cross-sectional approach, carried out on a set of objects which usually aims to see the relationship between knowledge and attitudes of adolescents

against sexually transmitted diseases HIV / AIDS in SMA Negeri 1 Tigapanah in 2019.

**Result**

**Table 4.1 Distribution of Respondents Based on gender**

N o	Jenis Kelamin	Frekuensi	Presentase (%)
1	Laki-laki	15	45,5%
2	Perempuan	18	54,5 %
	Total	33	100%

Based on table data 4.1. It can be seen from 33 respondents (100%) the majority of women with 18 respondents (54.5%).

**Tabel 4.2 Distribution of Respondents Based on Information Sources**

No	Sumber Informasi	Frekuensi	Presentase
1	Cetak	12	36,3%
2	Elektronik	16	48,5%
3	Papan	5	15,2%
	Total	33	100%

Based on data table 4.2. It can be seen from 33 respondents (100%) that the majority of them get information from electronic 16 respondents (48.5%)

**Tabel 4.3 Bivariate Analysis Of The Relationship Between Knowledge And Attitudes**

Tabel 4.3 Bivariate Analysis Of The Relationship Between Knowledge And Attitudes

	Atitude		Total
	Good	Not good	
Knowledge Good level	23	1	24
Enough	2	1	3
less	0	6	6
Total	25	8	33

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	24.152 <sup>a</sup>	2	.000
Likelihood Ratio	24.422	2	.000
Linear-by-Linear Association	22.938	1	.000
N of Valid Cases	33		

From table 4.4 above, there is a relationship between knowledge and attitudes of adolescents with p value <of 0.05 (p = 0.000).

### Discussion

From table 4.3 above, there is a relationship between knowledge and attitude with p value <than 0.05 (p = 0.000). This is in line with the theory which states that attitudes have an effect on behavior, if the attitude is positive, it will behave positively towards what will be done.

Sexually transmitted diseases (STDs) are disorders / diseases that are transmitted from one person to another through direct contact or sexual contact.

AIDS or Acquired Immune Deficiency Syndrome is a collection of symptoms caused by a decreased immune system by a virus called HIV. AIDS is a group of symptoms that indicate weakness or immune damage caused by external factors (not carried from birth). AIDS is defined as a form of most closely from persistent illness associated with human immunodeficiency virus (HIV) infection.

AIDS is caused by a virus that has several names, namely, HTL II, LAV, RAV. The scientific name is called the human immunodeficiency virus (HIV) which is a viral agent known as retrovirus that is transmitted by blood and has a strong affinity for T lymphocytes.

n acute primary human immunodeficiency virus (HIV) infection for 1-2 weeks, the patient will feel the flu. During the symptomatic immune suppression phase (3 years) the patient will

experience fever, night sweats, weight loss, diarrhea, neuropathic, skin rash fatigue, lymphadenopathy, cognitive gain, and oral lesions. When the human immunodeficiency virus (HIV) infection becomes AIDS (varies 1-5 years from the first determination of the AIDS condition) there will be symptoms of opportunistic infections, the most common is pneumocystic carinii (PCC), interstitial pneumonia caused by protozoa, other infections including meningitis, candidiasis, cytomegalovirus, microbacterial, and atypical, generalized and persistent inflammation of the lymph nodes, with symptoms of swelling of lymph nodes throughout the body for more than 3 months.

### Factors Affecting Adolescent Knowledge About Sexually Transmitted Diseases HIV / AIDS

#### Age

Age is the span of time a person starts from when he is born until his birthday.

If someone is of sufficient age, he will have a mature mindset and experience as well. (Ariani, 2014).

Adolescents are divided into:

1. Early adolescence (10-13 years)
  2. Middle adolescence (14-16 years)
  3. Late adolescence (17-19 years)
- (Setyaningrum, 2014).

#### Gender

Sex is the difference between men and women. The morbidity rate is higher among women while the mortality rate is higher among men across all age groups.

#### Resources

##### Print media

Print media as a tool to convey health messages varies widely, including:

- a. Booklet, a medium for conveying health messages in the form of a book, either in writing or in pictures.
- b. Leaflets, the form of conveying health information or messages through folded sheets. The contents of the information can be in the form of sentences or pictures, or a combination.

c. flyer, in the form of a leaflet or leaflet, but not folded.

d. Flif, in the form of flipcharts / media for delivering messages or health information in the form of flipcharts.

e. Rubric, in the form of writing in a newspaper or magazine that discusses a health problem, or matters related to health.

f. Poster, is a form of printed media containing messages or health information, which is usually affixed to walls or public places.

#### **Electronic Media**

Electronic media as a target to convey messages or health information are of different types, including:

- a. Television
- b. Radio
- c. Video
- d. Slide

#### **Media Board**

Media boards can be installed in public places that can be used and filled with messages or health information. It also includes messages written on sheets affixed to public vehicles (Notoadmojo, 2010).

#### **Conclusion**

Based on the results of the study "The Relationship between Adolescent Knowledge and Adolescent Attitudes on Sexually Transmitted Diseases HIV / AIDS in SMA N. 1 Tigapanah Tahun 2019 "with a total of 33 respondents and data processing that has been done using SPSS, it can be concluded that there is a relationship between knowledge and attitudes of adolescents towards sexually transmitted diseases of HIV / AIDS with a p value <of 0.05 (p = 0.000).

#### **Suggestion**

##### **a. For Health Workers**

It is hoped that health services will provide knowledge information to cadres and mothers to bring babies during the immunization schedule

##### **b. For the Educational Institute**

The results of this study can be used as a library reference at the Mitra Husada

College of Health (STIKes) Medan for further research.

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## THE EFFECT OF PREGNANCY EXERCISE ON ANXIETY LEVEL AND SLEEP QUALITY OF PREGNANT WOMEN AT CLINIC PERA

**Srilina Br Pinem**

[srilina46@gmail.com](mailto:srilina46@gmail.com)

STIKes Mitra Husada Medan

### ABSTRACT

Pregnancy exercise is exercise that recommended for pregnant women because it aims to do to prepare mentally and physically for pregnant women. Disorder during pregnancy which is poor sleep quality, high levels of anxiety, back pain, increased urinary frequency and leg cramps.

This research aimed to determine the effect of pregnancy exercise on anxiety level and sleep quality of pregnant women and to determine the correlation between anxiety level and sleep quality of pregnant women.

This research is an experimental research with one group pretest-posttest design with sample 22 respondents drawn using purposive sampling techniques based on inclusion and exclusion criteria. The data is primary data by answered the questionnaire Zung Self-Rating Anxiety Scale (ZSAS) and the questionnaire The Pittsburgh Sleep Quality Index (PSQI). The data is processed using the Wilcoxon test to determine the difference anxiety level and sleep quality before and after pregnancy exercise of pregnant women and using the Spearman test to determine the correlation between anxiety level and sleep quality of pregnant women.

The results showed difference of anxiety level before and after pregnancy exercise ( $p=0.000$ ) and showed difference of sleep quality before and after pregnancy exercise ( $p=0.001$ ). The results also showed there is not relationship between anxiety level and sleep quality of pregnant women ( $p=0.051$ ).

**Keywords: Pregnancy Exercise, Anxiety Level, Sleep Quality, Pregnant Women**

### Introduction

The gestation period starts from conception until the birth of the fetus. The normal duration of pregnancy is 280 days from the first day of the last menstrual period. Pregnancy is divided into 3 quarters, namely the first quarter starting from conception to 3 months, the second quarter from the fourth month to 6 months, the third quarter from the seventh month to 9 months. Pregnancy involves physical and emotional changes from the mother as well as social changes in the family (Saifuddin, 2009)

Discomfort during pregnancy and anxiety about childbirth cause sleep disturbances in pregnant women and one of the conditions that causes sleep disturbances in pregnant women is physical and emotional changes during pregnancy (Bobak, et al., 2005).

Pregnant women are encouraged to do moderate exercise during pregnancy so that the mother and fetus are healthier and reduce the problems that arise during pregnancy. One of the mild sports that pregnant women can do is pregnancy exercise. When examined further, in fact the pregnancy exercise movement contains a relaxing effect which is useful to stabilize anxiety and reduce fear by means of physical and mental relaxation, as well as getting information that prepares them to experience what will happen during labor and birth (Wibowo & Larasati, 2012).

Pregnancy exercise is a body movement in the form of exercises with rules, systematics, and the principles of special movements adapted to the condition of pregnant women, aiming to make pregnant women mentally and physically ready to face the labor process. (Widianti,

2009). Although not many, several maternal and child hospitals and health centers in Makassar City and Gowa Regency already have pregnant women class programs and pregnancy exercise classes. The benefits of pregnancy exercise itself are not really considered.

Research by Gede Robin in 2015 showed a relationship between the level of anxiety and the quality of sleep in third trimester primigravida pregnant women. The results showed that as much 35 primigravida pregnant women trimester III, 65.7% showed moderate to severe anxiety levels and 68.6% showed poor sleep quality (Robin, 2015). Based on the above background, the researcher is interested in conducting research on the effect of pregnancy exercise on anxiety levels and sleep quality in pregnant women in Pera clinics.

## Method

This research is a type of experimental research with a pre-experimental form with the aim to determine the effect of doing pregnancy exercise on anxiety levels and sleep quality in pregnant women,  $\geq 5$  months at Pera Clinic.

The design of this research is the One-Group Pretest Posttest Design. The first thing to do in this study is to give a pretest (O1) to the subject to determine the level of anxiety and sleep quality of pregnant women before treatment. Furthermore, given treatment (X) in the form of pregnant exercise to the subject. Then performed a posttest (O2) on the subject to determine the level of anxiety and sleep quality after treatment. The results of O1 and O2 were then compared to see the pretest comparison and posttest on the subject.

## Result

**Table 4.1 Characteristics Responden**

No	Characteristics	Frekuensi	Presentasi
1.	Mother's Age		
	<20 Years	1	4.5%

	20-35 Years	18	81.8%
	>35 Years	3	13.6%
2.	Gestational age	2	9.1%
	5 month		
	6 month	6	27.3%
	7 month	8	36.4%
	8 month	6	27.3%
3.	Education	6	27.3%
	SD/ equal		
	SMP/ equal	5	22.7%
	SMA/ equal	11	50.0%
4.	Paritas	19	86.4%
	Multigravida		
	Primigravida	3	13.6%

The table above shows the sample frequency with a mother's age under 20 years of 1 person (4.5%), 18 people aged 20-35 years (81.8%) and 3 people over 35 years of age (13.6%). The table above also shows a sample with a gestational age of 5 months as many as 2 people (9.1%), 6 months of gestation as many as 6 people (27.3%), 8 people at 7 months (36.4%) and 6 months of gestation. (27.3%).

Then the table above shows the sample frequency with the latest elementary school education (SD) or the equivalent as many as 6 people (27.3%), the last education was junior high school (SMP) or the equivalent as many as 5 people (22.7%) and with the last education was high school (SMA) or equivalent as many as 11 people (50%). The table above also shows the sample frequency based on parity of respondents with a multigravida sample of 19 people (86.4%) and a sample of 3 primigravidas (13.6%).

**Tabel 4.2 Distribusi Tingkat Kecemasan dan Kualitas Tidur**

		Pretest	Posttest
Anxiety Level	Normal	19 (86.4%)	22 (100%)
	Mild anxiety	2 (9.1%)	0 (0%)
	Anxious	1 (4.5%)	0 (0%)
Total		22	22
Sleep quality	Good	4(14.8%)	16 (59.3%)
	Bad	18 (66.7%)	6 (22.2%)
Total		22	22

Based on data table 4.2. It can be seen that the distribution of respondents based on the level of anxiety during the pretest, where normal respondents were 19 people (86.4%), respondents with mild anxiety levels were 2 people (9.1%) and respondents with severe anxiety levels were 1 person (4.5%). Meanwhile, at the level of anxiety during the posttest, there were 22 normal respondents (100%).

Based on the normality test on the anxiety level data distribution, the significance value for the pretest level of anxiety was 0.017. Because the significance value is less than 0.05, the data is considered to be not normally distributed. While the normality test for the posttest level of anxiety obtained a significance value of 0.018. because the significance value is less than 0.05, the data is considered to be not normally distributed.

Because it is obtained that the distribution of anxiety level data is not normally distributed, to test the difference in anxiety level values the Wilcoxon test is used. Wilcoxon test results for the pretest and posttest data on anxiety levels are shown in the following table.

**Tabel 4.3 Tabel 4 Tingkat Kecemasan Ibu Hamil Sebelum dan Setelah Senam Ha**

Median	Minimum-Maximum	p*
Pretest	33.0	23 – 62
Posttest	26.0	22 – 35

\* Hasil Uji Wilcoxon

From table 4.3 shows the value of the pretest and posttest the level of anxiety of pregnant women has a significance value of  $p < 0.05$ , that is,  $p = 0.000$ , it can be concluded that there is a significant difference in the level of anxiety before and after giving pregnancy exercise.

## Discussion

WHO provides recommendations for the age that is considered the safest for pregnancy and childbirth is 20-35 years. In this age range, the physical condition of

women is in prime condition. The uterus is able to provide protection, mentally ready to care for and care for her pregnancy carefully (Tobing, 2007). In this study, respondents with an age range of 20-35 years were as many 18 people or as much as 81.8% percentage.

Pregnancy at the age of less than 20 years can cause problems because the physical condition is not 100% ready (Tobing, 2007). This is in line with research conducted by Eka Roisa Shodiqoh and Fahriani Syahrul (2014) which states that third trimester pregnant women with an age range  $< 20$  years experience moderate anxiety levels of 3 people (50%) and experience severe anxiety levels of 3 people (50%). ). In this study, there were 1 pregnant women who were in the age range  $< 20$  years. Meanwhile, after the age of 35 years, some women are classified as having a high risk of congenital abnormalities and complications at the time of delivery. During this period, maternal and infant mortality rates have increased (Tobing, 2007). In this study there were 3 people or 13.6% who were in the age range  $> 35$  years.

The higher the education level of a person, the greater the opportunity to seek treatment at health services. Conversely, low education will cause a person to experience stress, where the stress and anxiety that occur are due to the lack of information that the person gets (Purwatmoko, 2001).

In this study, there were as many multigravida respondents 19 people or 86.4% and primigravida as many as 3 people or 13.6%. Primigravida mothers will tend to feel anxious about their pregnancy, feel anxious, and are afraid to face childbirth, considering that ignorance is a contributing factor to anxiety. Meanwhile, mothers who have been pregnant before (multigravida), perhaps anxiety is related to past experiences that have been experienced (Astria, 2009).

This is in line with research conducted by Eka Roisa Shodiqoh and Fahriani Syahrul (2014) which showed a

statistically significant difference in the level of anxiety among primigravida and multigravida mothers in dealing with childbirth, where it is known that the primigravida respondent group experienced mild anxiety levels of 6 people (27.3%), 6 people (27.3%) had severe anxiety levels, 10 people (45.4%) moderate anxiety levels, while multigravida respondents experienced severe anxiety levels as much as 2 people (9.5%), 4 people (19.0%) moderate anxiety level, and 15 people (71.4%) mild anxiety level.

In this study, 2 people with 5 months of gestation were found, or 9.1%, with 6 months of gestation as many as 6 people or 27.3%, 8 people with 7 months of gestation or 36.4% and 6 months of pregnancy with 6 people or 27.3%. Often in early pregnancy, mothers often feel ambivalent, confused, about 80% of mothers go through disappointment, sadness, anxiety. The second trimester is often said to be a period of profound health. This is because during this trimester women generally feel good and are free from pregnancy discomforts. In the third trimester, the mother usually feels worried, afraid her life, her baby, abnormalities in babies, childbirth, labor pains and the mother will never know when she will give birth (Indrayani, 2011).

The results of testing the difference in the value of anxiety levels before and after giving pregnancy exercise using the Wilcoxon test obtained a significance value of  $p = 0.000$ . Because the  $p$  value  $< 0.05$ , it can be concluded that there is a significant difference in the value of anxiety levels before giving pregnancy exercise with the anxiety level values after giving pregnancy exercise at the Samata Health Center, Gowa Regency, where before giving pregnancy exercise there were 1 pregnant women with severe anxiety levels. The level of mild anxiety as many as 2 people and 19 other people were normal, meanwhile after giving pregnancy exercise, all 22 pregnant women were normal. Based on this, it can be said that there is an effect

of giving pregnant exercise on the anxiety level of pregnant women. This is also confirmed by the difference in the median value of anxiety levels before and after giving pregnancy exercise, namely the median value at pretest 33.0 and the median value at posttest 26.0. It is clear that there is a very significant decrease in the median value of anxiety. The decrease in anxiety levels was also evident At the minimum and maximum values where at the pretest the minimum score was 23, while at the posttest the lower score was 22. Likewise with the maximum value where the pretest score was 62 then at the posttest the score was much lower, namely 35.

This study is relevant to research by Murbiah (2014) entitled The Effect of Pregnant Exercise on Anxiety Levels in the Third Trimester Primigravida in Palembang City which resulted in a significant significance value between the pretest and posttest values of pregnancy exercise. The results of his study also provide qualitative analysis of pregnant women after pregnancy exercise which shows that they feel more comfortable and less anxious about childbirth. Doing pregnancy exercise can reduce the level of anxiety in pregnant women where this exercise is itself one of the competencies of Physiotherapy. One of the reasons for this is the relaxation movement in pregnancy exercise. In addition to relaxation movements, there are also movements for breathing regulation which in addition to helping mothers during childbirth, can also provide a feeling of calm and relaxation for pregnant women. Maternal relaxation can also be assisted by the presence of therapeutic communication during pregnancy exercise. Physiologically, relaxation will affect the parasympathetic work of the central nervous system. The parasympathetic nervous system slows down or weakens the work of the body's internal organs. As a result, there is a decrease in heart rate, breathing rhythm, blood pressure, muscle tension, metabolic rate and the production of stress-causing hormones. Along with the decrease in

stress-causing hormones, the mother will feel calmer. Thus, pregnant women will feel relaxed as symptoms of anxiety decrease.

In this study, it was found that 86.4% of respondents were not anxious or normal at the pretest, which means that there were quite a lot of respondents who did not experience anxiety during pregnancy before giving pregnancy exercise. This can be caused because most of the respondents are multigravida mothers, namely as many 86.4% of respondents. Multigravida mothers are more likely not to experience anxiety during pregnancy because of previous experiences with pregnancy and childbirth. Pregnancy and childbirth experiences can help mothers in dealing with things that occur that can increase their anxiety, such as fear of pain during childbirth or physical changes during pregnancy. In this study, it was also found that respondents with maternal ages ranging from 20 years to 35 years where if the woman is pregnant in this age range, the mother is considered to be more physically and mentally ready to face her pregnancy.

### Conclusion

Based on the objectives and results of research regarding the Effect of Pregnancy Exercise on Anxiety Levels and Sleep Quality for Pregnant Women at the clinic pera, the following conclusions are drawn:

1. The distribution of anxiety levels before giving pregnancy exercise, namely 19 respondents (86.4%) normal, 2 respondents (9.1%) mild anxiety and 1 respondent (4.5%) severe anxiety, and the distribution of sleep quality before giving pregnancy exercise, namely 4 respondents (14.8%) with good sleep quality and 18 respondents (66.7%) with poor sleep quality.
2. The distribution of anxiety levels after giving pregnancy exercise shows that as many as 22 respondents (100%) are normal and the distribution of sleep quality after giving pregnancy exercise is as much as 16 respondents (59.3%) indicated good sleep quality and 6

respondents (22.2%) indicated poor sleep quality.

3. There is an effect of giving pregnant exercise on changes in the level of anxiety of pregnant women where there is a decrease in the value of anxiety levels after giving pregnancy exercise as indicated by significance value  $p = 0.000$ .
4. There is an effect of giving pregnant exercise on changes in the quality of sleep for pregnant women where there is a decrease in the value of sleep quality after giving pregnancy exercise which is indicated by the significance value of  $p = 0.001$ .
5. There is no significant relationship between anxiety level and sleep quality where the significance value shows  $p = 0.051$ .

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MIHHICo I  
2020  
STIKes Mitra Husada Medan

## THE RELATIONSHIP OF THE RECEPTION WITH THE USE OF RATIONAL MEDICINE ON POST PARTUM MOTHER IN PUBLIC HEALTH CENTRE LAU BALENG KECAMATAN LAU BALENG IN 2019

Mediana Br. Sembiring<sup>1</sup>, Riska Susanti Pasaribu<sup>2</sup>, Imarina Tarigan<sup>3</sup>

[mediyana01@gmail.com](mailto:mediyana01@gmail.com)

<sup>1,2,3</sup> STIKes Mitra Husada Medan

### ABSTRACT

Medicine is an important factor in health care. The use of drugs that are inappropriate, ineffective, unsafe, and also not economical is now a problem in health care. Based on data from the North Sumatra Provincial Health Office in 2017, it is known the use of Vitamin A and Fe tablets in the case of Postpartum Mother (56.0%), Postpartum Infection (63.0%), the average use of drugs (3.5 drugs per prescription). This type of research used in this study is an analytic survey with a cross-sectional retrospective design that is the design of epidemiological studies. The sampling technique in this study was to use a purposive sampling unit sampling technique of 65 recipes. This study yielded: the most dominant variable related to rational drug use at the Lau Baleng Health Center, Lau Baleng Subdistrict, was the prescribing variable corresponding to the list of essential drugs, with a significant 0,000, OR = 60,944 (95% CI = 10,375-385,129). It is recommended that prescribing doctors at the Lau Baleng Health Center in Lau Baleng District write prescriptions in accordance with applicable guidelines in accordance with the Republic of Indonesia's Ministry of Health standards for 2015-2019.

**Keywords: Prescribing, Rational Medicine**

### Introduction

Medicine is an important factor in health care. The use of drugs and vitamins that are not appropriate, ineffective, unsafe, and also not economical is now a problem in health care, both in developed and developing countries. This problem is often found in health service units such as in hospitals, health centers, private practice, and in the wider community.

Based on data from the World Health Organization (WHO) in 2019 it is estimated that more than half of the world's population uses drugs that are prescribed, given and sold in an inappropriate way and use drugs incorrectly. One drug that needs to get the right prescription.

Improper use of drugs can have a negative impact on health. In Postpartum Mothers Provision of Vitamin A and Fe Tablet is needed for the prevention of infection and acceleration of healing in postpartum mothers

The cause of anemia is due to lack of nutrients for blood formation, such as iron and vitamin A. But what often happens is anemia due to iron deficiency (Rukiyah, 2010). About 75% of anemia in the puerperium is caused by iron deficiency which shows a picture of hypochromic microcytic erythrocytes on peripheral blood smears. The second most common cause is megaloblastic anemia and vitamin A deficiency. Other rare causes of anemia include hemoglobinopathy, inflammatory processes, chemical toxicity, and malignancy (Prawirohardjo, 2015).

According to the Indonesian Health Profile in 2016 anemia occurred in 37.1% of postpartum mothers in Indonesia, 36.4% of postpartum mothers in urban areas and 37.8% postpartum mothers in rural areas. To prevent anemia each puerperal woman is expected to get at least 90 tablets plus blood during the puerperium. The 2016 PSG (nutritional status monitoring) results found that only 40.2% of postpartum mothers

received at least 90 tablets with blood tablet lower than the 2016 national target of 85%. (North Sumatra health profile, 2016)

### Method

This type of research used in this study is an analytical survey with a cross-sectional retrospective design that is the design of epidemiological studies. The sampling technique in this study was to use a purposive sampling technique, a technique for obtaining samples that were directly carried out in the sampling unit as many as 65 recipes. Data were analyzed by univariate analysis, bivariate analysis, multivariate analysis using logistic regression tests. by testing the value of  $p = 0.05$  (39).

### Result

**Tabel 1. Prescribing Relationships Based on Medication Items**

Medication Items	Rational Drug Use						p value
	Irrational		Rasional		Total		
	f	%	f	%	f	%	
Irrational	16	24,62	23	35,38	39	100,0	0,027
Rasional	14	21,54	12	18,46	26	100,0	
Total	30	46,15	35	53,85	65	100,0	

Based on table, it is known that of the 65 prescriptions studied, the majority of prescriptions based on the number of items per prescription medication were irrational, as many as 39 (60.00%) prescriptions. Of the 39 prescriptions based on the number of irrational prescription drugs items, there were 16 (24.62%) irrational prescriptions in the prescription based on the number of prescription drugs items and irrational prescriptions based on drug use, and as many as 23 (35.38%) prescription that is not rational in prescribing based on the number of items per prescription medication but rational based on the use of drugs. Based on the results of the statistical test calculations the significance of p value is  $0.027 < 0.05$ , so it can be concluded that there is a relationship between the number of drug items per prescription sheet in a single diagnosis with rational drug use

**Table 2. Relationship of Number of Prescribing Based on the Use of Vitamin A Nonspecific**

Medication Items	Rational Drug Use						p value
	Irrational		Rasional		Total		
	f	%	f	%	f	%	
Irrational	16	24,62	23	35,38	39	100,0	0,27
Rasional	14	21,54	12	18,46	26	100,0	
Total	30	46,15	35	53,85	65	100,0	

Based on table 2 it is known that of the 65 prescriptions studied, the majority of prescriptions based on the number of items per prescription medication were irrational namely 39 (60.00%) prescribing. Of the 39 prescriptions based on the number of irrational prescription drugs items, there were 16 (24.62%) irrational prescriptions in the prescription based on the number of prescription drugs items and irrational prescriptions based on drug use, and as many as 23 (35.38%) prescription that is not rational in prescribing based on the number of items per prescription medication but rational based on the use of drugs. Based on the results of the statistical test calculations the significance of p value is  $0.027 < 0.05$ , so it can be concluded that there is a relationship between the number of drug items per prescription sheet in a single diagnosis with rational drug use.

**Table 3. Relationship of Frequency of Prescribing Based on the use of Fe Tablets in Mother Postpartum**

The use of Fe tablets in postpartum mothers	Rational Drug Use						p value
	Irrational		Rasional		Total		
	f	%	f	%	f	%	
Irrational	20	30,77	24	36,92	44	100,0	0,020
Rasional	10	15,38	11	16,93	21	100,0	
Total	30	46,15	35	53,85	65	100,0	

Based on table 3 it is known that of the 65 prescriptions studied, the majority of prescriptions based on the use of Vitamin A in the case of Mother Postpartum were irrational as many as 44 (67.69%) prescribing. Of 44 uses of Fe Tablet in the case of Postpartum mothers, there were 20 (30.77%) prescriptions that were irrational in the use of Vitamin A and Fe Tablet in the case of Postpartum mothers and were not



rational in drug use, and as many as 24 (36.92%) irrational prescription in the use of Vitamin A and Tablet Fe in the case of puerperal women and rational use of drugs.

Based on the results of the statistical test calculations the significance of p value is  $0.020 < 0.05$ , so it can be concluded that there is a relationship between the use of Vitamin A and Fe tablets in the case of postpartum mothers with rational drug use.

**Table 4. Rational Relationship of Drug Use**

Use Rational medicine	Rational Drug Use						p value
	Irrational		Rasional		Total		
	f	%	f	%	f	%	
Irrational	22	33,85	23	35,38	45	100,0	<b>0,007</b>
Rasional	8	12,31	12	18,46	20	100,0	
<b>Total</b>	<b>30</b>	<b>46,16</b>	<b>35</b>	<b>53,84</b>	<b>65</b>	<b>100,0</b>	

Based on table 4 it is known that of the 65 prescriptions studied, the majority of prescriptions based on the use of Fe tablets in the case of Mother Postpartum were irrational as many as 45 (69.23%) prescribing. Of the 45 Fe Tablets used in the case of the Rational Mother, as many as 22 (33.85%) prescribing irrational prescriptions were based on the use of Fe Tablets in the Postpartum mother case and irrational drug use, and as many as 23 (35.38%) irrational prescription based on the use of Fe tablets in postpartum mothers. Based on the results of the statistical test calculations the significance of p value is  $0.007 < 0.05$ , so it can be concluded that there is a relationship between the use of Fe tablets in postpartum mothers with rational drug use at.

**Table 5. Variable Selection as a Model Candidate in Logistic Regression Test Based on Bivariate Analysis**

No	Variabel	p value	Information
1	Medicine item	0,027	Kandidat
2	Use of Vitamin A in Post Partum Mothers	0,027	Kandidat
3	The use of Fe tablets in postpartum	0,020	Kandidat

No	Variabel	p value	Information
4	Rational Use of Drugs	0,007	Kandidat

Based on table it can be seen that all variables are model candidates in the logistic regression test where p value  $< 0.25$ . The results of the logistic regression analysis can be seen in the following table:

**Table 6. Logistic Regression Analysis Results**

No	Variabel	B	p value	Exp(B)OR	95% CI for Exp(B)
1	Medicine item	0,434	0,310	0,648	0,145-2,885
2	Use of Vitamin A in Post Partum Mothers	4,110	0,001	60,832	10,375-385,129
3	The use of Fe tablets in postpartum mothers	4,560	0,002	60,944	10,375-385,129
4	Rational Use of Drugs	18,611	0,276	0,745	0,355-4,351

**Analysis Results**

Based on table 6 above, it can be seen that the logistic regression analysis produces one of the most dominant variables related to rational drug use in the Lau Baleng Health Center, Lau Baleng Subdistrict, which is prescribing variables that correspond to the list of essential medicines, with a significant  $0,000$  (p value  $< 0.05$ ),  $OR = 60,944$  (95% CI = 10,375-385,129) means that the type of prescribing that is in accordance with the list of essential medicines has a 60,944 chance of rational drug use compared to irrational drug use. Coefficient B value of 4.110 is positive, so the more prescribing that is in accordance with the rational list of essential drugs, the higher the rational use of drugs.

## Discussion

### Relationship of the Number of Drug Items per Prescription Sheet in a Single Diagnosis with the Use of Rational Drugs

Based on the results of the statistical test calculations the significance of p value is  $0.027 < 0.05$ , so it can be concluded that there is a relationship between the number of drug items per prescription sheet in a single diagnosis with rational drug use.

The high number of irregular prescription drug items used in the Lau Baleng Health Center in Lau Baleng District is likely due to the pattern of therapy for doctors and midwives given focus on symptoms rather than diagnosis. encourage doctors to prescribe many drugs such as Vitamin A and Fe Tablets without providing proper education and usefulness of the drugs. The economic, socio-cultural impact that makes the community Kususnya Ibu Nifas rarely make repeat visits if conditions are not too hated. So doctors and midwives prescribe a lot of drugs. henceforth the patient no longer pays for the medicine akan ditebusnya di loket obat puskesmas. Semakin tinggi tingkat polifarmasi means that more and more drugs must be provided at the puskesmas. This results in increased costs used to procure drugs.

Polypharmacy events at the Lau Baleng Health Center in Lau Baleng Sub-district can also occur due to the difficult enforcement of diagnoses with limited tools to ensure the diagnosis so that drugs are prescribed according to the patient's symptoms or complaints. In this Puskesmas, there is no set limit for prescribing monitoring, the number of drugs in one prescription (polypharmacy). Polypharmacy is the use of five or more types of drugs simultaneously in one sheet of prescription. Some of the characteristics of Irrational Drug Use include, overprescribing, underprescribing, multiple prescribing and incorrect prescribing.

The results of this study are in accordance with research conducted by Ami, et al with the title of the study "Analysis of Prescribing Medicine for

Children 2-5 Years Old in the city of Bandung in 2012". This study aims to determine the pattern of drug absorption in children aged 2 to 5 years in 14 Bandung City Pharmacy period 2012 through prescribing indicators. The data used were 2,195 recipe sheets from 14 Bandung City Pharmacy taken retrospectively and processed based on WHO prescribing indicators. The results showed that the average number of drugs in each recipe sheet was 3.54

items, the percentage of patients who received 0% injection drugs; the percentage of patients receiving 75% antibiotics; the percentage of drugs prescribed with a generic name of 8.13% and the percentage of drugs prescribed according to the National Essential Medicines (DOEN) list is 32.9%(18).

Use of Rational Drugs, namely the number of drugs per prescription can be achieved if it meets the principles of the right diagnosis, the right patient, the right drug, the right dose, the right way of administration, the right interval and duration of administration, and the right information

According to researchers, polypharmacy can have a detrimental effect on patients such as, there is a risk of drug interactions because some drugs cannot be taken simultaneously. Drug interactions can endanger the patient's condition or even make other drugs have no effect. Besides polypharmacy can also cause an increase in the risk of side effects and costs, to make patients worry the smaller the average value of the number of prescription items, or in other words polypharmacy, the unwanted drug reactions from drug interactions can be avoided. Irrational use of the amount of drugs per prescription also affects the patient's adherence to treatment, the incidence of bacterial resistance to the prescription of irrational antibiotics, and the costs to be paid by the patient.

### **The Relationship between the Use of Vitamin A in the Postpartum Mother Case and the Use of Rational Drugs**

The results showed that of the 65 prescriptions studied, most of the prescriptions based on antibiotic use in the case of Mother Postpartum were irrational as many as 44 (67.69%). Of the 44 uses of Vitamin A in the case of the Postpartum mother, there were 20 (30.77%) irrational prescribing and irrational drug use, and 24 (36.92%) irrational prescription and rational drug use. Based on the results of the statistical test calculations the significance of p value is  $0.020 < 0.05$ , so it can be concluded that there is a correlation between the use of Vitamin A in the case of Postpartum Mother with the use of rational medicine at.

Based on the Indonesian Ministry of Health Policy in the management guidelines, it can only be done if a person has been diagnosed appropriately.

The most worrying consequence of not consuming Vitamin A in the case of Postpartum mothers is the delay in the process of wound healing after childbirth and the production of breast milk which is not smooth so that it is necessary to administer Vitamin A to the postpartum mother who is appropriate and according to the dosage needed by the postpartum mother. in Lau Baleng Health Center, Lau Baleng Sub-District, this can be detrimental both in economic terms (increasing therapeutic costs) and clinical (increasing severity of the disease).

This study is also in line with Sauriasari's research (2017) entitled "Evaluation of the suitability of prescription writing in the case of Mother Postpartum in the Polytechnic of MTBS Puskesmas, Cengkareng District, Jakarta". The results showed the percentage of antibiotic use in the sample was 59.6% where the most widely used antibiotic was amoxicillin. Based on the results of this study, it can be concluded that the use of antibiotics in toddlers coughing non-pneumonia in Cengkareng Health Center is quite high and the suitability of prescription writing with MTBS Chart Book guidelines is inadequate.

According to the researchers' assumptions, the accuracy of the indications is a process of evaluating the selection of drugs that are in accordance with what the patient needs. The accuracy of the indications in choosing Vitamin A drugs is based on the diagnosis made by a doctor or midwife for medical reasons. Evaluation of the accuracy of the indications is seen from the need for patients to obtain the drug according to their needs.

### **Relationship of Use of Vit. A and Fe Tablets in Postpartum Mother Infection Cases with Rational Drug Use**

The results showed that of the 65 prescriptions studied, most of the prescriptions based on the use of Fe tablets in postpartum mothers were irrational as many as 45 (69.23%). Of the 45 Fe tablets used in the non-specific case of puerperium, there were 22 (33.85%) irrational prescribing and irrational drug use, and 23 (35.38%) irrational prescription and rational drug use. Based on the results of the statistical test calculations the significance of p value is  $0.007 < 0.05$ , so it can be concluded that there is a correlation between the use of Fe tablets in the case of Mother Postpartum with rational drug use in the Lau Baleng Health Center, Lau Baleng District symptoms of the disease quickly disappear. From various approaches taken to increase the rationality of drug use, it can be seen that there are many factors that influence the prescription of Fe tablets such as lack of knowledge and habits in prescribing drugs. that is, the patient only gets the medicine needed, but treatment has not yet been carried out that refers to the Basic Medicine Guidelines at the Puskesmas.

The most worrying consequence of the use of Vitamins A and Fe in childbirth infection cases is the excessive use of rational drugs at the Lau Baleng Health Center, Lau Baleng Subdistrict, the slow healing process for Postpartum mothers and a small amount of milk production and resulting in adverse economic impacts

(increasing costs) therapeutic) and clinical (increasing severity of disease) Therefore the percentage of prescription of Fe tablets is expected according to the patient's condition to avoid undesirable effects. Restrictions on the use of these drugs aim to overcome disease resistance to the condition of the puerperal mother.

### Conclusion

From the results at the Lau Baleng Health Center, Lau Baleng Subdistrict, the prescribing variable is in accordance with the list of essential medicines, with a significant 0,000, OR = 60,944 (95% CI = 10,375-385,129).

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## ANALYSIS OF INTAKE CALCIUM AND IRON SUBSTANCE IN THE INCIDENT OF DISMENORE ON FEMALE ADOLESCENT

Hironima Niyati Fitri<sup>1</sup>, Kadek Dwi Ariesthi<sup>2</sup>

hironimaniyatifitri@yahoo.com

<sup>1), 2)</sup> The Midwifery Diploma Program, Citra Bangsa University

### ABSTRACT

Dysmenorrhea is a pain in the lower part of the stomach that occurs at the time before or during menstruation. Symptoms of dysmenore may be accompanied by nausea, vomiting, diarrhea and cramps. In Indonesia, the incidence is estimated at 55% of productive women who suffer from dysmenore, where 15% of them complain of activity becomes limited by dysmenorrhea. This study aims to analyzing calcium and iron source food intake for dysmenorrhea in female adolescent at Citra Bangsa High School. This research is a type of analytic study using the case control method. The independent variable in this study is the intake of calcium and iron sources, and the dependent variable is the incidence of dysmenorrhea in Female Adolescent. The population is female adolescent at Citra Bangsa Senior High School with a total sample of 32 people divided into a sample group of 8 respondents and a control group of 24 respondents involving a case group and a control group 1: 3. Data were collected using food recall 24-hour form to determine intake food sources of calcium and iron consumed by female adolescent. The bivariate analysis used was the Chi-square test with  $\alpha = 0.05$ . The result in this study are Most of the age of respondents in the second group depends on the age of late adolescents (17-25 years) and the longer the normal menstruation in the range of 2-7 days. The analysis showed that there was a significant relationship between intake of calcium source food with the incidence of dysmenorrhea ( $p = 0.022$ ; OR = 26.6) and there was a significant relationship between the intake of food source substances with the incidence of dysmenorrhea ( $p = 0.022$ , OR = 14.0). Lack of intake of food sources and substances increases the incidence of dysmenorrhea of female adolescent. The intake of food sources needed every day cannot meet the needs of female adolescent need additional intake of calcium and iron in the form of supplements.

**Keywords:** dysmenorrhea, calcium intake, iron intake

### Introduction

The problem experienced by most women at the time of menstruation is the discomfort or severe pain that is commonly called dysmenorrhea. Dysmenorrhea is a pain in the lower part of the stomach that occurs at the time before or during menstruation. Symptoms of dysmenore may be accompanied by nausea, vomiting, diarrhea and cramps. In Indonesia, the incidence is estimated at 55% of productive women who suffer from dysmenore, where 15% of them complain of activity becomes limited by dysmenorrhea. Dysmenorrhea or menstrual pains have a considerable impact on the female adolescent because they cause disruption to daily activities. Female

adolescent who have pain dysmenorrhea or menstrual pain during menstruation will feel limited in conducting activities especially learning activities at school(1). The condition of female adolescent who are experiencing menstrual pain (dysmenorrhea) and at the same time following a learning activity in the process can cause learning activities to become impaired, not excited, the concentration of being decreased is even difficult to concentrate so that the material delivered during learning can not be well received even until some do not enter school (2). Factors of the cause of dysmenore are multi-factor, among others: psychiatric, individual, blockage in the cervical tract,

female reproductive organs, endocrine, allergies, and intake of nutrients (3). Nutrients that contribute to the occurrence of menstrual pain (dysmenorrhea) include calcium and iron. Calcium has a role in muscle contraction. Calcium is instrumental in the interaction of proteins in the muscles, namely actin and myosine when the muscles contract. The deficiency of calcium causes muscles can not loosing after contraction, so it can result in cramps Otot (4). The research conducted by Hidayati (2016), it states that there is a link between consumption of calcium and dysmenore events. Research conducted on female adolescent SMK Batik 2 Surakarta shows 83.6% of female adolescent have a calcium intake rendah (5). Iron has a role in the formation of hemoglobin. Deficiency of iron intake caused the disruption of the formation of hemoglobin, so the amount of hemoglobin in red blood cells will be reduced. Low hemoglobin conditions in red blood cells, causing the body to lack oxygen and cause anemia (6). According to Sylvia and Lorraine (2006), anemia is one of the factors constitutions the cause of lack of immune resistance to pain during menstruation. Anemia is not only one of the causes of dysmenore, but it can also cause severe dismenore. A study conducted on students of SMK Negeri 10 Medan shows that 88% of the 171 students have less nutritional status (underweight) with anemia. Women with anemia have a risk of 1.2 times greater experiencing dismenore (7).

### Method

This research is a type of analytical research using the case control method, to study the intake of calcium and iron with dysmenore. The research was conducted at Citra Bangsa Senior High School on September 2019. The population of the case in this study was all the female adolescent in Citra Bangsa High School with a sample of research of 32 people divided in 8 respondents case groups and 24 respondents control group with comparisons of case groups and control

groups of 1:3. The criteria for the inclusion of the case in this research is the respondent willing to be the subject of the study by signing the informed consent that has been provided and subjected to dysmenore every month while the exclusion criteria of the case is if the respondent is not able to communicate/not willing to be the subject of research. The control population is obtained from all female adolescent who do not experience dysmenorrhea or painful menstruation every month. The criteria for inclusion of the case in this study is that respondents are willing to be subject to research by signing informed consent that has been provided, while the case exclusion criteria is if the respondent is not able to communicate/not willing to be the subject of research. The types of data collected in this study are primary and secondary data. Secondary data is derived from the number of female adolescent in Citra Bangsa High School. Primary Data is collected using a 24-hour food recall form to determine the intake of calcium and iron consumed by female adolescent. Bivariate analysis uses chisquare test with  $\alpha = 0$ .

### Result

Table 1. Characteristic of respondents

No	Characteristic	Case (%)	Control (%)
<b>Age</b>			
1.	Early teens (12-16 years old)	3 (9,4)	6 (18,7)
2.	Late teens(17-24 years old)	5 (15,6)	18 (56,3)
<b>Total</b>		<b>8 (25)</b>	<b>24 (75)</b>
<b>Long Menstruation</b>			
1.	< 2 Days	0 (0,0)	0 (0,0)
2.	2-7 Days	8 (25,0)	24 (75,0)
3.	>7 Days	0 (0,0)	0 (0,0)
<b>Total</b>		<b>8 (25)</b>	<b>24 (75)</b>

Table 1 shows that most of the respondents were in the late adolescent age range in either case groups (15,6%) As well as in the control group (56,3%). The length of menstruation every month in both groups, the case group (25%) and control

group (75%) is at a normal time span of 2-7 days.

Table 2. Analysis of calcium intake and iron to the incidence of dysmenore

No	Risk Factor	Case (%)	Control (%)	p	OR
<b>Calcium Intake</b>					
1.	< 77%	7 (21,8)	5 (15,6)	0,005	26,6
2.	≥ 77%	1 (3,2)	19 (59,4)		
<b>Total</b>		<b>8 (25)</b>	<b>24 (75)</b>		
<b>Iron Intake</b>					
1	< 77%	7 (21,8)	8 (25,0)	0,022	14,0
2	≥ 77%	1 (3,2)	16 (50,0)		
<b>Total</b>		<b>8 (25)</b>	<b>24 (75)</b>		

Table 2 indicates a significant link between the intake of calcium and the occurrence of dysmenore with the value  $p < 0.05$ ; OR 26,6 which means that female adolescent who consume calcium intake of < 77% risk 26 times higher in dysmenore than the female adolescent who consume calcium intake  $\geq 77\%$ . There is a significant relationship also between iron intake and dysmenore occurrence with the value  $p < 0.05$ ; OR 14,0 which means that female adolescent who consume iron intake of <77% risk 14 times higher in dysmenore than the female adolescent who consume iron intake  $\geq 77\%$ .

Stated that there was a relationship between the knowledge of pregnant women about anemia and adherence to consuming Fe tablets with a p value <of 0.05 ( $p = 0,000$ ).

## Discussion

Female adolescent experience menstruation every month so that the body loses a lot of iron coming out through the blood menstruation. According to WHO, each month the young woman experiences an iron loss of 12.5-15 mg per month or 0.4-0.5 mg per day due to her menstrual periods. This is what causes iron reserves in the body of the female adolescent less than

the young men. To compensate or replace the loss of iron that occurs at the time of menstruation, the body needs a high intake of iron. High iron intake is also necessary to expand the volume of blood because at the age of adolescence occurs very fast growth (8,9).

This research consistent with the research conducted by Hidayati, et al (2016) conducted on the students at SMK Batik 2 Surakarta, where the research show nutrition intake Most of the respondents are in the category of less good intake of calcium (83.6%) or iron intake (71.6%). The occurrence of dysmenorrhea or menstrual pains suffered by most respondents are in the category of moderate pain (22.4%). Bivariate analysis also shows the connection between calcium intake and the occurrence of dysmenore with the value of  $p < 0.05$ ; R-0415 value and there is a link between the intake of iron with the occurrence of dysmenore with the value  $p < 0.05$  and the value of R-0586. The lower the intake of calcium and iron, the higher the dysmenorrhea or the perceived menstrual pain (5).

Adolescent age requires mineral intake especially calcium intake. For teenage years, calcium is not only needed for bone growth but it is also necessary to reduce or minimize the pain that occurs before or during menstruation commonly referred to as the term dysmenorrhea. Calcium intake affects the permeability of the nerve membrane. The condition of muscle cramps can occur due to low intake of kalsium (10,11). A female adolescent also needs to reduce high fatty foods that can cause pain before or during menstruation (12) In addition to calcium, iron is also indispensable for the formation of hemoglobin (Hb) in the bone marrow. Plasma iron levels can be reduced in case of insufficient iron intake. This causes the supply of iron into the bone marrow to be reduced, thus interrupting the process of even lowering the hemoglobin formation. The deficiency of hemoglobin in the blood can lead to anemia. Anemia is one of the

factors that can cause a decrease in body endurance and cause high sensitivity to pain when menstruation (5,12,13). In addition, research conducted by Rosvita, et al. (2017) shows that female adolescent who are in the category of calcium consumption are more or less in the group of female adolescent who have experienced abdominal cramps during menstruation as much as 83,7%. The intake of calcium female adolescent aged 13-18 years according to the national standard Recommended Dietary Allowance (RDA) is  $\geq 1200$  mg/day. The consumption rate of calcium in the category of less is  $\geq 1200$  mg/day. The consumption rate of calcium in the less category is  $< 77\%$  (14).

Based on the recommendation of Recommended Dietary Allowance (RDA) 2013, the adequacy of iron per day for adolescents aged 13-21 years is 26 mg/day. In this research, the description of the type and quantity of food and beverages consumed by respondents daily to see the total intake of iron is obtained using the method of interview using Food Frequency Questionnaire (FFQ) (15).

Nutritional intake also has an influence on Dysmenore events. The most influential nutrients include iron. Iron has various functions, such as: Iron has a role in the formation of hemoglobin. Hemoglobin is a protein that carries oxygen in red blood cells throughout the tissues. Deficiency of iron intake can cause disruption of the formation of hemoglobin, so the amount of hemoglobin in red blood cells will also be reduced. Low hemoglobin conditions in red blood cells, causing the body to lack oxygen and cause anemia. Anemia can cause a health disorder in a person (16). According to Sylvia and Lorraine, anemia is one of the factors constitutions that causes a lack of immune to pain during menstruation. Anemia is not only one of the causes of dysmenore, but it can also be worsened dysmenore. Iron also has a function as an immune system. Iron holds a role in the immune system. Cell immune response by lymphocytes-T is interrupted due to the reduced formation of these cells, which are

likely caused by decreased DNA synthesis. The decrease in DNA cycleesis is caused by a disturbance of ribonucleotide reductase enzymes requiring iron to function. This immune system that can affect the pain of menstruation.

### Conclusion

Insufficient intake of calcium and iron in female adolescent can increase the risk of menstrual pain (dysmenorrhea). Female adolescent need to meet the needs of calcium and iron per day. Since the need for calcium and iron affects the incidence of dysmenore, the female adolescent are expected to consume more foods that contain a lot of these minerals. If the foodstuffs are not able to fulfill the nutritional needs of these nutrients, the government in this case health department and related sectors can seek the provision of iron tablets and also fortification foodstuffs with nutrients needed in the period of growth and development of adolescents, especially female adolescent (6).

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## **HEMOCARE FOR ELDERLY PEOPLE DURING THE COVID-19 PANDEMIC**

**Rosmega**

rosmega1062@gmail.com  
STIKes Mitra Husada Medan

### **INTRODUCTION**

Coronavirus disease 2019 (COVID-19) is a respiratory illness that can spread from person to person. The virus that causes COVID-19 is a novel coronavirus that was first identified during an investigation into an outbreak in Wuhan, China. The virus spreads from person to person mainly between people who are in close contact with one another (within about 6 feet) through respiratory droplets produced when an infected person coughs or sneezes. A person can also get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly their eyes. The virus that causes COVID-19 is spreading very easily and sustainably (going from person to person without stopping) between people. A person can be infectious before showing symptoms, which is why it is important to practice proper social distancing measures. To reduce the risk of infection, older adults should avoid leaving their homes unless it's critically necessary.

The COVID-19 pandemic is impacting the global population in drastic ways and, in many countries; older people are facing the most serious threats and challenges. Although all age groups are at risk for contracting the COVID-19 virus, older people face a significant risk of developing severe illness due to physiological changes that come with ageing and existing underlying health conditions.

This pandemic has brought about unprecedented fear and uncertainty, especially among older adults. The elderly rely on social connection more than most and they need it now more than ever. The elderly and retired sometimes need a helping hand and they also often need to have people around them. With practicing a nation-wide lock down and social distancing vulnerable seniors could be feeling more alone than usual.

There are several reasons why the elderly are somewhat more vulnerable - they have more chronic conditions than younger people, their aging immune system makes it harder to fight off diseases, infections and viruses. Recoveries are usually slower and more complicated. Most of us are worried for our loved ones that are older and living far away from us. They might face anxiety because they live alone, are on a fixed income or pension, no longer drive and cannot take public transport, their routine health checkups are delayed. They could also have un-diagnosed or poorly managed depression.

**Keywords: Covid-19, Elderly people, Homecare**

### **TAKING CARE OF ELDERLY DURING COVID-19**

When it comes to Coronavirus (COVID-19), elderly people, especially those at home are vulnerable to severe illness. Research says that adults 60 years and older and especially those with pre-existing medical conditions like hypertension (High BP), lung disease, diabetes, heart disease or cancer are prone to have severe, or even deadly, coronavirus infection compared to other age groups.

You may be worried if you are caring for an elderly loved one who is at home. Here are some guidelines you may need to know to keep elderly people at home safer, and what to do if they get infected with COVID-19.

### **Assessing the Risk for COVID-19 in Elderly**

If you are an elderly person or you have a member in the family who is elderly, it is pertinent that you do a risk assessment for

CORONA infection. The following factors have to be kept in mind.

- AGE- 60-70, 70-80, above 80 years – risk increases with every decade
- Associated co-morbid conditions (pre-existing medical conditions) – Diabetes, High BP, Heart problems, Lung problems, Underlying Cancer, HIV or any other immunodeficient condition

Mitigating Risk of COVID-19 in Elderly

- Minimize the contact of elderly with other members of the family- Ensure only one person deals with them at a safe distance and that their food is also served with caution
- Avoid any visitors for the elderly
- Avoid any outdoor activity like walking, going to grocery etc
- Report any new symptom as soon as possible - do not wait for things to worsen

Handling New Symptoms or Problems

- Report all new symptoms immediately - elderly do not get high fever and may not get the classic signs as we see in young people. Hence, any change in behavior, symptoms or signs must be reported immediately
- Any cough, breathing difficulty, change in smell or taste function, loose motions, etc. are symptoms associated with COVID-19. They must be immediately reported to your home health doctor, via tele-consult

Ensuring Emotional Well-being

Elderly are likely to be overwhelmed with the entire COVID scenario and they need to be handled very sensitively in these times.

- Keep them active and positive- Yoga/Meditation can help
- Revisiting memories: watching old pictures, letters, videos can be a good way of keeping the elderly engaged during this time
- Using social media to video call with family /friends on a daily basis

## CONCLUSION

Support for older people, their families and their caregivers is an essential part of the countries' comprehensive response to the pandemic. During times of isolation and quarantine, older people need safe access to nutritious food, basic supplies, money, medicine to support their physical health, and social care. Dissemination of accurate information is critical to ensuring that older people have clear messages and resources on how to stay physically and mentally healthy during the pandemic and what to do if they should fall ill.

In closing, I sum up 4 key messages underscoring that combating COVID-19 is a collective responsibility:

- While older people are at highest risk from COVID-19, all of us, at all ages, need to act in solidarity to prevent further community spread of the virus.
- It is crucial that we support all health and social care workers equally and give special attention to those who provide nursing and social care services for older people. Supporting and protecting older people living alone in the community is everyone's business.

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2020  
STIKes Mitra Husada Medan

## THE CORRELATION BETWEEN BREAST CARE WITH THE INCIDANCE OF BREASTMILK DAMS AT NS BABY SPA AND MOM CARE CLINIC MEDAN JOHOR DISTRICT MEDAN CITY IN 2019

Juliana Munthe<sup>1)</sup>, Ucha Egatamara<sup>2)</sup>

E-mail:munthejuliana25@gmail.com E-mail:uchaegatamara@gmail.com<sup>2)</sup>  
Sekolah Tinggi Ilmu Kesehatan (STIKes) Mitra Husada Medan,

### ABSTRACT

Breast milk dams are of milk due narrowing of the lactic ducts or by the glands not being emptied completely or due to abnormalities in the nipples. Breast milk dam is the occurrence of swelling in the breast due to increased venous and lymph flow which causes milk dams and pain accompanied by an increase in body temperature (Winkjosastro, 2016). The purpose of this study was to determine in the relationship between breast care and the incidence of ASI dams in the Ns Baby Spa And Mom Care Clinic Medan Johor District Medan City in 2019. This type of research is an observational analytic case control study approach. The population was all breastfeeding mothers who experienced breastfeeding dam events in the 2019 Ns Baby Spa And Mom Care Clinic , totaling 80 people. The number of samples used was 31 people obtained using simple random sampling technique. Data collection using questionnaires and checklist sheets to monitor the management of breast care. Data analysis techniques and checklist sheets to monitor the management of breast care. Data analysis techniques using the chi square test. The results obtained are p value (0,000) which means there is a relationship between breast care and the incidence of breast milk dams at the Ns Baby Spa And Mom Care Clinic in Medan Johor District Medan City in 2019.

**Keywords:** *Breast Care, Breast Milk Dam*

### Introduction

According From data WHO (World Health Organization) in 2013 the United States, percentage of breastfeeding women who experienced breast milk dams reached an average of 87.05% or as many as 8242 post-partum mothers out of 12,765 people, in 2014 mothers who experienced dams As many as 7198 people were breastfed out of 10,764 people and in 2015 there were 6543 mothers out of 9,862 people who experienced ASI dams (WHO, 2015).

According data from the ASEAN (Association of Southeast Asian Nations) in 2013, it is known that the percentage coverage of cases of breast milk dams in postpartum mothers was recorded as 107,654 post-partum mothers, in 2014 there were 95,698 postpartum mothers who experienced ASI dams, and in 2015 mothers who experienced breastfeeding dams as many as 76,543 people from this. This is because public awareness in encouraging

increased breastfeeding is still relatively low (Depkes RI, 2014).

According the 2015 Indonesian Demographic and Health Survey Data, there are as many as 35,985 postpartum mothers or (15.60%) postpartum mothers, and in 2015 postpartum mothers who experienced ASI dam were 77,231 or (37, 12%) mothers. nifas (IDHS, 2015).

Based on the health profile of North Sumatra in 2014, the average postpartum care in the province of North Sumatra reached 84.62%, number 3 has decreased compared to the achievement in 2013, namely 86.7%, so that the coverage of postpartum mothers who experience ASI dam tends to decrease . The coverage achievement per regency / city varied greatly, where the highest coverage was Medan city (98.0%). (North Sumatra Provincial Health Office, 2014).

Based on the Preliminary Study data that I did at the NS Babyspa And Mom Care

Clinic, Medan Johor City, Medan District, data from September to December 2018 were obtained that there were 20 postpartum mothers who experienced ASI dams and for the January - April 2019 period, postpartum mothers as many as 63 people and 30 people who experienced ASI Dam (BPM Ns Babyspa And Mom Care).

Postpartum breast care is breast care performed on postpartum mothers to improve blood circulation and prevent blockage of the milk ducts so as to facilitate breastfeeding. Implementation of breast care starts as early as possible, namely 1-2 days after the baby is born and is carried out 2 times a day. Breast care for postpartum mothers who are breastfeeding is an effort to support breastfeeding for babies.

Breast milk retention is caused by narrowing of the lactiferous ducts, glands that are not emptied completely or abnormalities in the nipples. Several factors can cause breast milk damages, namely incomplete emptying of the mother. During lactation, there is an increase in milk production in mothers whose milk production is excessive. Inactive baby suction factors During lactation, if the mother does not breastfeed her baby as often as possible or if the baby is not actively sucking, it will cause milk dams, the baby's improper breastfeeding position factor, immersed nipples, immersed nipples will make it difficult for the baby to suckle . Because the baby cannot suckle the nipple and areola, the baby does not want to suckle and the result is milk infestation and the nipple is too long. Long nipples make it difficult when the baby feeds because the baby cannot suck the areola and stimulates the lactiferous sinuses to release milk. As a result, breast milk is retained and causes breast milk dams (Winkjosastro, 2016)

Postpartum breast care is breast care performed on postpartum mothers to improve blood circulation and prevent blockage of the milk ducts so as to facilitate breastfeeding. Implementation of breast care starts as early as possible, namely 1-2 days after the baby is born and is carried out

2 times a day. Breast care for postpartum mothers who are breastfeeding is one of the efforts to support breastfeeding for babies (Pilleteri A, 2016).

Breast care during the puerperium is very important for mothers to increase breast production to stimulate the milk glands. Breast care performed during the puerperium is very useful for mothers in addition to increasing breast production as well as preventing breast sagging during breastfeeding. Breasts are a mother's valuable "asset" for her baby, with which she can provide the best and quality food called ASI. As another valuable asset that requires the best care, breasts are the same. For the sake of the continuity of the breastfeeding process, the breasts must be cared for properly and appropriately in order to avoid the disorders and diseases that may occur during the lactation process (Riskani, 2014).

The hypothesis in this study is that there is a relationship between breast care and breast milk dam incidence of ASI dams in the Ns Baby Spa And Mom Care Clinic Medan Johor District Medan City in 2019.

### Method

This type of research is an observational analytic study with a case control study design that used a prospective approach, which aims to identify risk factors at this time, then compare the risk factors that have been identified or have occurred in the past.

The population in this study were all breastfeeding mothers from January to June 2019 totaling 80 mothers. The determination of the sample size is based on the unpaired categorical comparative analytic formula according to Dahlan (2010) of 31 respondents. Sampling in this study used purposive sampling, namely a sampling technique that was formed or determined by the researcher with inclusion criteria, namely breastfeeding mothers who experienced breast milk damages, breastfeeding mothers who were not exclusively breastfed, breastfeeding mothers

who had problems with flat nipples. and breastfeeding mothers who come to the NS baby spa clinic and mom care and live around the clinic. For the control group, namely breastfeeding mothers who did not experience breast milk damages, breastfeeding mothers who were exclusively breastfed, all postpartum mothers who did not breastfeed, breastfeeding mothers who came to the NS baby spa clinic and mom care. The exclusion criteria for the case and control groups were mothers who were not willing to be observed and mothers who had had breast care.

This research was conducted at the NS Baby And Mom Care Clinic, Medan Johor district. In this study, the data collection method used to collect breast care and the incidence of breastfeeding was a closed questionnaire, meaning that all answers were provided and the respondents simply chose the available answers. (Arikunto, 2010). Data collection was carried out by secondary retrieval through data from the NS Baby Spa And Mom Care clinic in 2019, by giving a questionnaire in the form of questions presented in the form of questions that were presented in the form of questions that would be given a check list (√) in the column or place appropriate and primary data obtained directly from respondents by means of physical examination (Notoadmojo, 2014).

The statistical test used was univariate analysis to describe the frequency distribution of each variable, both independent variables (age, parity, job and education). The dependent variable (ASI dam).

Hastono (2007). Bivariate analysis was conducted on 2 (two) variables to determine 2 (two) variables. The analysis technique used is the chi square test. The first stage is knowing the relationship between the independent variable and the dependent variable. The second stage is knowing the risk of the independent variable on the dependent variable. Measurement of the amount of risk in this study was carried out by calculating the

OODS ratio, because the type of research was case control. The ODs ratio (OR) is a measure of the association of exposure (risk factor) to disease incidence.

### Results And Discussion Univariate Analysis

Based on the results of the study, the distribution of breast care at the Ns Baby Spa And Mom Care Clinic, Medan Johor City Medan District is as follows:

**Tabel 4.1**

**Frequency Distribution of Breast Care for Mothers at NS Baby Spa And Mom Care Clinic, Medan Johor District, Medan City in 2019**

No	Category	Frequency	Percent (%)
1.	Not given	16	51.6
2.	Given	15	48.4
	Total	31	100.0

Based on table 4.1 above, from a total of 31 respondents, 16 respondents (51.6%) were not given breast care and 15 respondents (48.4%) were given breast care.

**Table 4.2**

**Frequency Distribution of ASI Dams in Nursing Mothers at NS Baby Spa And Mom Care Clinic, Medan Johor District, Medan City in 2019**

No	Category	Frequency	Percent (%)
1	No dams	13	41.9
2.	Any dams	18	58.1
	Total	31	100.0

Based on table 4.2 above from total 31 respondent consisting 13 respondent (41.9%) no ASI dams and 18 respondent (58.1%) any ASI dams.

**Tabel 4.3**  
**Frequency Distribution Characteristic of**  
**Ages in Breastfeeding Mother at NS Baby**  
**Spa And Mom Care Clinic Medan**  
**Johor District Medan City in 2019**

No	Category	Frequency	Percent (%)
1	risk (<20 and >35 years old)	12	38.7
2.	No risk (25-35 Years old)	19	61.3
	Total	31	100.0

Based on table 4.3 above from total 31 respondent consist 12 respondent (38.7%) with risk ages (less than 25 years old and more than 35 years old) and consist 19 respondent (61.3%) with no risk ages (ages between 25- 35 years old).

**Tabel 4.4**  
**Frequency**  
**Distribution Characteristic Parity**  
**in breastfeeding Mother at NS Baby Spa**  
**And Mom Care Clinic Medan Johor**  
**District Medan City in 2019**

No	Category	Frequency	Percent (%)
1	≥2 kids	10	32.3
2.	≤2 kids	21	67.7
	Total	31	100.0

Based on table 4.4 above from total 31 respondent consist 10 respondent (32.2%) with more than 2 kids and 21 respondent (67.7%) with less than or same 2 kids

**Tabel 4.5**  
**Frequency**  
**Distribution Characteristic Education in**  
**Breastfeeding Mother at NS Baby Spa**  
**And Mom Care Clinic Medan Johor**  
**District Medan City in 2019**

No	Category	Frequency	Percent (%)
1.	Low	7	22.6
2.	High	24	77.4
	Total	31	100.0

Based on table 4.5 above from total 31 respondent consist 7 respondent (22.6%) with low education and 24 respondent (77.4%) with high education.

**Tabel 4.6 Frequency Distribution**  
**Characteristic Job in Breastfeeding**  
**Mother at NS Baby Spa And Mom Care**  
**Clinic Medan Johor District Medan City**  
**in 2019**

No	Category	Frequency	Percent (%)
1.	No job	16	51.6
2.	Have job	15	48.4
	Total	31	100.0

Based on table 4.6 above from total 31 respondent consist 16 respondent (51.6%) no job and 15 respondent (48.4%) have job.

#### Bivariate Analysis

**Tabel 4.7 Result of Chi Square Test**  
**about The Correlation Breast Care with**  
**ASI Dams incident at NS Baby Spa And**  
**Mom Care Clinic Medan Johor District**  
**Medan City in 2019.**

Category	Asi Dams		Total	P Value	RR
	Not have	Have			
Breast Care (N %)	Not given	16 (100%)	16 (100%)	0,000	0,000
	Given	2 (13,33%)			
Total	n%	18 (58,06%)	31 (100%)		
		13 (41,93%)			



Based on table 4.7 above, there are 16 respondents who were not given breast care and all of them experienced breast milk dams, while there were 15 respondents who were given breast care, where 13 of them had no ASI dams and 2 others had ASI dams. The significance value is p value (0.000) <(0.05). then  $H_a$  is accepted and  $H_0$  is rejected. Thus it can be concluded that "There is a relationship between breast care and the incidence of breast milk dam at the NS Baby Spa and Mom Care Clinic, Medan Johor District, Medan in 2019". This means that the more frequent breastfeeding, the less likely it is to have a dam of breast milk, and conversely, the more you never do breast care, the more likely it is to have a dam. This study is an observational analytic study with a case-control design that used a prospective approach, namely a study that looks at and compares the risk factors that occur at this time and those that occurred in the past, where when the mother is breastfeeding, the researcher monitors the observations of the management of breast care. conducted by midwives using a checklist sheet, and a checklist sheet for ASI dam, and after that the researcher distributed a questionnaire about parity, age, education and work on the subject under study, if the checklist and questionnaire sheets were collected then the data was processed into a computer using the SPSS version of the application. 22.0

The results showed that from a total of 31 respondents, 16 respondents (51.6%) were not given breast care and 15 respondents (48.4%) were given breast care. According to Rustam (2009), breast care is a way of caring for breasts that is carried out during pregnancy or the puerperium for breast milk production, in addition to breast hygiene and the shape of the inverted or flat nipple. Such nipples are actually not an obstacle for the mother to breastfeed properly, knowing from the start, the mother has time to make the nipples easier when breastfeeding. Besides that, it is also very important to pay attention to personal hygiene. Postpartum breast care is a

continuation of breast care during pregnancy, according to Notoadmojo (2012), breast care aims to maintain breast hygiene so as to prevent blockage and avoid infection.

The results showed that most of the respondents, there were 13 respondents (41.9%) who did not experience ASI dams and 18 respondents (58.1%) experienced ASI dams. Dams of ASI are the occurrence of swelling in the breasts due to increased venous and lymph flow, causing milk damages and pain accompanied by an increase in body temperature (Sarwono, 2010). According to Prawirohardjo (2010), the mother's complaints are breast swelling, hardness, heat and pain. Treatment should be started during pregnancy with breast care to prevent abnormalities. If this also happens, then give symptomatic therapy for the pain (analgesics), empty the breast, before breastfeeding first massage or pump it, so that the blockage is gone. If necessary, give stilbestrol or lynoral tablets 3 times a day for 2- 3 days to temporarily stem milk production.

Based on table 4.7 above, there are 16 respondents who were not given breast care and all of them experienced ASI dams, while there were 15 respondents who were given breast care, where 13 of them had no ASI dams and 2 others had ASI dams. Based on the p value obtained through the Chi square table

4.8 test above, a significance value of p value (0.000) <(0.05) is obtained, which means that  $H_a$  is accepted, so it can be concluded that there is a significant relationship between breast care and breast milk dams. This means that the more frequent breast care, the less likely it is to have an ASI dam.

In relevant studies with research conducted by (Tuti, 2015), said that breasts with an incidence of ASI dam were obtained that data from respondents who did not perform breast care were almost Overall (75.6%) of respondents experienced ASI Dam (15.9%) did not experience ASI Dam then Respondents who performed breast

care (31.8%) of respondents experienced ASI Dam and partially.

### Conclusion

Based on the results of research on the relationship between breast care and the incidence of breast milk dam at the Ns Baby Spa and Mom Care Clinic, Medan Johor City, Medan District in 2019, the following conclusions can be drawn:

Most of the respondents (51.6%) were breastfeeding mothers who did not perform breast care, while almost half of the respondents (48.4%) were breastfeeding mothers who did breast care at the Ns Baby Spa And Mom Care Clinic, Medan Johor Kota Medan District in 2019.

Most of the respondents (58.1%) were breastfeeding mothers who experienced breast milk dams, while nearly half of the respondents (41.9%) were breastfeeding mothers who did not experience breastfeeding at the Ns Baby Spa And Mom Care Clinic, Medan Johor Kota Medan District. 2019 year.

There is a significant relationship between breast care and the incidence of breast milk dams at the Ns Baby Spa And Mom Care Clinic, Medan Johor City Medan District in 2019 with a p value of 0,000, it can be concluded that  $p < \alpha$  ( $0,000 < 0.05$ ).

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## THE RELATIONSHIP BETWEEN KNOWLEDGE AND ATTITUDES OF MOTHER WITH BEHAVIOR OF SUPPLEMENTARY FEEDING OF BREAST MILKFOR INFANTS AGED 6-24 MONTHS AT THE AUXILIARY COMMUNITY HEALTH CENTER, UJUNG GADING JULU VILLAGE, NORTH SUMATRA IN 2019

Wahyu<sup>1</sup>, Lasria Simamora<sup>2</sup>

[lasriasimamora@gmail.com](mailto:lasriasimamora@gmail.com)

STIKes Mitra Husada Medan

### ABSTRACT

#### INTRODUCTION

Complementary Food Mother's Milk (MP-ASI) is food that is given to babies over 6 months as additional food to meet the baby's intake. giving the right MP-ASI will affect optimal growth and development in infants, therefore Knowledge and Attitude about the MP-ASI will influence the behavior of the mother's in giving the MP-ASI. North Padang Lawas district health survey In 2017, toddlers who experienced malnutrition status 2.8%, malnutrition 0.6% for Simangambat sub-district 2.8% toddlers with under nutritional status and 0.9 with malnutrition status. The purpose of this study was to determine the relationship of knowledge and attitudes of mothers with the behavior of giving MP-ASI to infants aged 6-24 months at the auxiliary community health center, Ujung Gading Julu Village, North Sumatra.

#### MATERIAL AND METHODS

The research used is quantitative with cross sectional design. The sampling technique is purposive sampling technique with a sample size of 62 respondents. The data were analyzed by using univariate analysis, bivariate analysis with chi square test

#### RESULT

The results of univariate analysis showed that the majority of respondents had good knowledge as much as 64.5% and had good attitude as much as 56.4% and good behavior as much as 59.7%. The results of the bivariate analysis showed that knowledge was obtained  $p = 0.010 < 0.05$ , while attitudes were obtained  $p = 0.028 < 0.05$

#### CONCLUSION

From the results of this study it can be concluded that there is a significant relationship between mother's Knowledge and Attitudes with the Behavior of Giving MP-ASI to infants in Ujung Gading Julu Village, North Sumatra in 2019

**Keywords :** *Knowledge, Attitude, Behavior, Complementary foods of breast milk*

#### 1. INTRODUCTION

The age of 0-24 months is a period of rapid growth and development, so that it is often termed the golden period as well as the critical period. The golden period can be realized if at this time infants and children receive appropriate nutrition for optimal growth and development. To achieve optimal growth and development, in the Global Strategy For Infant And Young Child Feeding, WHO / UNICEF recommends four important things that must be done, namely: first giving breast milk to

babies immediately within 30 minutes after the baby is born, second only giving breastfeeding only from birth to 6 months of age (exclusive breastfeeding), the third providing complementary foods (MP-ASI) from 6 months to 24 months of age, and the fourth continuing breastfeeding until the child is 24 months or older (UNICEF, 2009).

One of the efforts to improve community nutrition is monitoring the nutritional status of children under five. By looking at the development of the

nutritional status of children under five, the development and growth of children can be seen, so that it can be seen if there are abnormalities in toddlers. Monitoring activities for the development of the nutritional status of children under five is carried out by weighing each month to children under five at the posyandu. Based on the weighing, the data on the number of children under five is weighed every month, under-five with weight gain, and under-five who are categorized as Weight Under the Red Line (Kemenkes RI, 2014).

Efforts to improve community nutrition are aimed at improving the nutritional quality of individuals and communities, among others through improving food consumption patterns, improving nutrition awareness behavior, increasing access to and quality of nutrition and health services in accordance with advances in science and technology. Good nutrition is the foundation of health, nutrition affects immunity, susceptibility to disease, and physical and mental growth and development. Good nutrition will reduce morbidity, disability and mortality, thereby increasing the quality of human resources (Kemenkes RI, 2014).

According to WHO (2012) the number of malnourished sufferers in the world reaches 104 million children and malnutrition still causes one third of all causes of child mortality worldwide. The prevalence of malnutrition among children under five years of age in Indonesia according to the results of the 2018 Nutrition Status Monitoring conducted by the Indonesian Ministry of Health, infants under five years of age (toddlers) experiencing nutritional problems in 2018 reached 17.8% the same as the previous year. This number consists of underfives who experience 3.8% malnutrition and 14% malnutrition (Riskasdas, 2018).

Based on data from the North Sumatra provincial health office in 2017, the percentage of children under five 0-23 months according to the Weight for Age index (BW / U) the incidence of

malnutrition was 4.60%, malnutrition 11.40%, good nutrition 81.70% 2.40% more. Meanwhile, according to the Height to Age index (TB / U) is very short 12.50%, 16.00% short, and 71.50% normal. Meanwhile, according to the index of body weight and height, very thin 6.70%, thin 10.20%, normal 77.40% and fat 5.70% (Profil Kesehatan Sumut, 2017).

Based on the health report of North Padang Lawas (Paluta) district in 2017, the number of children under five who had malnutrition status was 2.8% and malnutrition was 0.6%, for Simangambat sub-district there were 1.8% of children under five with malnutrition status and 0.9% with malnutrition status (BPS Paluta, 2018). Various factors can reduce morbidity, disability and mortality of children under five, including by improving the quality of health services in terms of working partners and public knowledge about improving nutrition which will have a good impact on the body's resistance to disease infections (Palas Health Office, 2017).

Based on a preliminary survey at the Supporting Puskesmas Desa Ujung Gading Julu, Simangambat Subdistrict, it was recorded that in May 2019 there were 73 babies aged 6-24 months, counting from births in June 2017. Of the 5 mothers who had babies aged 6-24 months there were 3 of them are not correct in giving complementary breastfeeding to their babies, many factors influence this situation, one of which is the factor of mother's knowledge about complementary feeding itself, besides that there are mothers who do know about complementary feeding but do not apply according to the Health book Mother and Child.

From the description above, the authors are interested in knowing the relationship between knowledge and attitudes of mothers with the behavior of giving complementary foods to babies aged 6-24 months by putting it in the form of a thesis with the title "The Relationship between Knowledge and Attitudes of

Mother and Behavior of Breastfeeding in Infants Age 6. -24 months at the village health center in Ujung Gading Julu, North Sumatra in 2019".

Village, Simangambat District, North Padang Lawas Regency, North Sumatra Province in June - July 2019.

## 2. RESEARCH METHOD

### 2.1 Research design

This type of research is quantitative research with the type of analytical research using the survey research method approach which is used to observe using a cross sectional design where the cause or risk and effect variables or cases that occur on the object of research are measured or collected at the same time, namely to determine the relationship between knowledge and attitudes. mothers with complementary feeding behavior to babies 6-24 months. In this study, the authors will take the dependent variable data (behavior of complementary feeding) and independent variables (knowledge and attitudes of mothers) in one unit at the same time.

### 2.2 Population and sample

Population is the whole subject to be studied (Hidayat, 2011). In this study, it was concluded that the population of all mothers who had babies aged 6-24 months at the Puskesmas Pembantu Gading Julu Village, Simangambat District in May 2019, totaling 73 people counted since the birth of a baby in June 2017.

The sample is part of the population to be studied or part of the number of characteristics possessed by the population. The sample is randomly selected from mothers who have babies aged 6-24 months. According to Sugiyono (2012), calculating the sample size in the study can be calculated using the Slovin formula, so that the sample size in this study was 62 respondents, where the sampling technique was carried out by using purposive sampling technique.

### 2.3 Location and time of study

This research will be conducted at the Sub-Puskesmas Ujung Gading Julu

### 2.4 Measurement Method

Data collection is a process of approaching the subject and the process of collecting the characteristics of the subject required in research. The data collection process is carried out, the researcher makes an approach and explanation to prospective respondents about the research and for respondents who are willing and meet the sample criteria are welcome to sign the research agreement, then explain how to fill out the questionnaire, after all the questionnaires are answered, the researcher collects and checks the completeness of the data.

The primary data obtained were directly obtained from researchers conducting univariate analysis to describe knowledge and attitudes with the behavior of complementary feeding in infants aged 6-24 months and bivariate analysis to determine the relationship between maternal knowledge and attitudes with complementary feeding behavior in infants aged 6-24 months using the chi square test and a significant level of 95% ( $\alpha$  0.05)

## 3. RESEARCH RESULTS

This research is the relationship between knowledge and attitudes of mothers with the behavior of breastfeeding infants aged 6-24 months at the village health center in Ujung Gading Julu, North Sumatra in 2019.

The general description of respondents in this study can be explained as follows:

**Table 1. Frequency distribution of respondents based on characteristics (n = 62)**

Respondent Characteristics	Category	F	Proportion
Age	15-20 years	3	4.8
	21-25 years	25	40.3
	26-30 years	19	30.6
	31-35 years	11	17.7
	36-40 years	4	6.5
Total		62	100.0
	Primary	26	41.9

Respondent Characteristics	Category	F	Proportion
Education	school		
	Primary school	16	25.8
	Senior High School	17	27.4
	College	3	4.8
Total		62	100.0
Profession	Farmer	10	16.1
	Housewife	38	61.3
	Labor	3	4.8
	Entrepreneur	8	12.9
	Teacher	3	4.8
Total		62	100.0
etcnic	Javanese	47	75.8
	Batak tribe	11	17.7
	Banjar tribe	2	3.2
	the Sundanese	1	1.6
	Nias tribe	1	1.6
Total		62	100.0
Age of the baby	6-9 months	15	24.2
	10-12 months	12	19.4
	13-24 months	35	56.5
Total		62	100.0
Parity	Primipara	15	24.2
	Multipara	43	69.4
	Grande Mutipara	4	4.5
Total		62	100.0

Tabel 1 menunjukkan bahwa dari 62 responden mayoritas berumur 21-25 tahun 40,3%. Mayoritas pendidikan terakhir SD 41,9%, dan untuk pekerjaan mayoritas responden bekerja sebagai IRT sebanyak 61,3%, Mayoritas responden suku jawa 75,8%, untuk responden yang memiliki bayi usia 13-24 bulan 56,5% dan Paritas terbanyak yaitu multipara 69,4%.

**Table 2. The Relationship between Knowledge and Complementary Feeding Behavior**

Knowled ge	Behavior of giving complementary foods						Asimp .sig (2-sided)
	Good		Not Good		Total		
	F	%	F	%	F	%	
Well	28	70.0	12	30.0	40	100	0.010
Enough	6	66.7	3	33.3	9	100	
Not good	3	23.1	10	76.9	13	100	
Total	37	59.7	25	40.3	62	100	

Table 2 shows the Asimp.Sig value of 0.010 <0.05, it can be concluded that there is a significant relationship between knowledge and the behavior of giving complementary foods to infants.

Table 3. The Relationship between Attitudes and Behavior of Complementary Feeding

**Table 3. The Relationship between Attitudes and Behavior of Complementary Feeding**

Attitude	Perilaku Pemberian MP-ASI						Asimp. sig (2-sided)
	Good		Not Good		Total		
	F	%	F	%	F	%	
Well	26	74.3	9	25.7	35	100	0.028
Enough	6	42.9	8	57.1	14	100	
Less	5	38.5	8	61.5	13	100	
Total	37	59.7	25	40.3	62	100	

Table 3 shows the Asimp.Sig value of 0.028 <0.05, it can be concluded that there is a significant relationship between attitude and behavior of giving complementary foods to babies.

#### 4. DISCUSSION

##### 4.1 Relationship between Knowledge and Breastfeeding Behavior in Infants

From statistical analysis using the Chi-square test, the p value is obtained = 0.010 which explains that there is a difference in the proportion between respondents who are well-informed, sufficient, and lacking complementary feeding to their babies, and at a significant level of 95% with an alpha of 0.05, statistical null hypothesis (H0) is rejected, which means that there is a significant relationship between knowledge and complementary feeding in infants aged 6-24 months.

The results showed that respondents who had good knowledge and good behavior were 70.0% of giving complementary foods to their babies appropriately, respondents with good

knowledge and good behavior were 66.7%, while for the category of respondents with poor knowledge but good behavior were 23.1%. This shows that almost all respondents have good knowledge about complementary feeding.

This research is in accordance with Bahri's (2011) research on the relationship between knowledge and attitudes of mothers with the provision of complementary foods in PB Village. Selayang II Medan Selayang District which states that knowledge is related to the mother's actions in giving complementary foods with a p value of 0.001 ( $p < 0.05$ ). Likewise research by Darmawan (2015) on the relationship between knowledge and attitudes of mothers with the behavior of giving proper MP-ASI to infants aged 6-12 months in Sekarwangi Village, Sumedang Regency, where the results showed that knowledge was significantly related to giving complementary feeding to infants. with ( $p = 0.000$ ).

This research is also supported by the statement by Notoatmodjo (2012) that knowledge is a very important domain in shaping one's actions. Knowledge is the result of knowing, and this happens after sensing certain objects. Knowledge is a very important factor for the formation of one's actions. Knowledge based on a correct understanding will lead to a positive understanding so that eventually one form of expected behavior grows.

Several things affect the level of knowledge of respondents about complementary foods so that they are able to provide the right complementary breastfeeding to their babies. In addition to higher education factors, information from the mass media and socio-culture also contributes to the increase in respondents' knowledge, where there is new information about something that provides a new cognitive foundation for the formation of knowledge about it, and with the habits and traditions that people do without through reasoning whether what is done is good or

bad. Thus a mother will increase in knowledge even if she does not do it.

In addition, environmental factors and respondents' experiences can provide a lesson so as to increase knowledge. Notoatmodjo (2012) states that the environment affects the process of entering knowledge into individuals who are in that environment. this happens because there is a reciprocal reaction or not which will be responded to as knowledge by each individual

#### **4.2 Relationship between Attitude and Behavior of Breastfeeding in Infants**

From the statistical analysis using the Chi-square test, it was obtained p value = 0.028 which explains the difference in the proportion between respondents who were good, good enough and less good in giving complementary foods to babies aged 6-24 months. The results showed that respondents who had good attitudes and good behavior were 74.3%, respondents who had a good attitude and good behavior were 42.9% and respondents who had a bad attitude with good behavior were 38.5% giving complementary foods. on the baby exactly.

This research is in accordance with Bahri's (2011) research on the relationship between knowledge and attitudes of mothers with the provision of complementary foods in PB Village. Selayang II Medan Selayang District which states that attitude is related to the mother's actions in giving complementary foods with a p value of 0.002 ( $p < 0.05$ ). Likewise research by Darmawan (2015) About Relationships Knowledge and attitudes of mothers with appropriate Mp-breastfeeding behavior for infants aged 6-12 months in Sekarwangi Village, Sumedang Regency where the results showed that attitudes were significantly related to giving complementary breastfeeding to infants with ( $p = p = 0.013$ ).

According to Sunaryo's opinion in Notoatmodjo (2012), attitude is a person's

closed response to an object. Attitudes in reality show a response to certain stimuli. From the aspect of mother's attitude, many mothers think that their babies are hungry and will sleep soundly if they are fed even though it is irrelevant. many think it is true even though because the digestive system is not yet perfect, the digestive system has to work harder to process food.

## 5. CONCLUSIONS AND SUGGESTIONS

### 5.1 Conclusion

From statistical analysis for the relationship between knowledge and behavior of complementary breastfeeding, it was obtained p value = 0.010 ( $\alpha < 0.05$ ), which means a significant relationship between knowledge and complementary feeding in infants aged 6-24 months, as well as for the relationship between attitudes and breastfeeding. The behavior of complementary breastfeeding obtained p value = 0.028 ( $\alpha < 0.05$ ) means that there is a significant relationship between the attitude and behavior of complementary feeding in infants.

### 5.2 Suggestions

It is hoped that Health Service Agencies will further improve health promotion by involving the community in order to establish good cooperation

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## THE EFFECT OF OXYTOCIN MASSAGE USING THE ONSET OF BREASTMILK EXPENDITURE IN THE POSTPARTUM MOTHERS AT CLINIC ASNAH MEDAN TEMBUNG DISTRICT IN 2019

Suryanti Kristin Harefa<sup>1</sup>, Lisa Putri Utami Damanik<sup>2</sup>, Marliani<sup>3</sup>

[Suryantikristin2@gmail.com](mailto:Suryantikristin2@gmail.com)  
STIKes Mitra Husada Medan

### ABSTRAK

Oxytocin massage is one of the solutions to overcome the smooth production of breast milk by massaging along the spine (vertebrae) to the fifth-sixth rib. Oxytocin massage provides comfort to the mother, reduces swelling (engorgement), reduces breast milk obstruction and is an attempt to stimulate the hormones prolactin and oxytocin after childbirth. This study aims to determine the effect of oxytocin massage with the onset of breastfeeding in postpartum stage IV mothers at the Asnah Clinic, Medan Tembung District in 2019. This study was a quasi experimental study with a one group pre and post test design approach. The population of this study were all 2 hour postpartum mothers at Midwife Asnah's clinic, while the sample in this study were 2 hour postpartum mothers, totaling 30 people with purposive sampling technique. The data analysis technique used chi-square. The result is mean time of colostrum expenditure in post partum mothers in the oxytocin massage intervention group was 4.26 hours and the mean time of colostrum expenditure in post partum mothers in the control group was 5.10 hours, the result of statistical analysis was  $p = 0.026 < \alpha = 0.05$ . The conclusion is an effect of oxytocin massage with the onset of breastfeeding in postpartum stage IV mothers at the Asnah Midwife Clinic, Medan Tembung District in 2019.

**Key words:** *oxytocin massage, breast milk*

### Introduction

The baby is growth and development is largely determined by the amount of breast milk receives, including energy and other nutrients contained in breast milk. Breast milk without other foodstuffs can meet growth needs until the baby is 6 months old<sup>1</sup>. Breast milk is the best source of nutrition that can improve the health of both mother and child. Breastfeeding to babies is very important, especially in the early period of life, therefore it is sufficient for babies to be exclusively breastfed for the first 6 months without adding / or replacing them with other foods or drinks (Kemenkes RI, 2015)<sup>2</sup>. One of the goals of the SDG program (Sustainable Development Goals) is to end all forms of malnutrition with a strategic plan (renstra) to increase the percentage of infants less than 6 months of age who are breastfed. Based on data from the 2017 national health profile of Indonesia, the coverage of exclusive

breastfeeding in Indonesia is 61.33%. This figure has not reached the national target of 80% (Kemenkes RI, 2016)<sup>3</sup>. The highest percentage of coverage of exclusive breastfeeding was found in West Nusa Tenggara (87.35%), while the lowest percentage was in Papua (15.32%). The percentage of newborns who receive exclusive breastfeeding in the province of North Sumatra is 45.74%, this has not reached the national target expected by the government (Kemenkes RI, 2018)<sup>4</sup>. Many mothers complain that their babies do not want to breastfeed, this can be caused by technical factors such as nipples that are inserted or the wrong position. Apart from these technical factors, breast milk is also influenced by nutritional intake, the mother's psychological condition and is inhibited by the mother's emotional state if the mother feels afraid, tired, embarrassed and feels uncertain or when she feels pain (Pitriani, Andriyani, 2014)<sup>5</sup>. According to

Rusdiarti (2014), it is explained that the achievement of exclusive breastfeeding is influenced by several factors such as reduced milk production caused by hormones and the mother's perception of insufficient breast milk. Postpartum mothers who experienced problems in the breastfeeding process included 38%, 35% less breast care, 15% less than 8x / day breastfeeding frequency, 12% acute and chronic diseases<sup>6</sup>. Oxytocin massage is one solution to overcome the non-smoothness of breast milk production by massaging along the spine (vertebrae) to the fifth-sixth rib. Oxytocin massage provides comfort to the mother, reduces swelling (engorgement), reduces breast milk obstruction and is an attempt to stimulate the hormones prolactin and oxytocin after childbirth (Rahayu, 2016)<sup>7</sup>. Based on the research of Ummah (2014), the results showed that breastfeeding in the oxytocin massage intervention group was faster (Mean = 6.2143) than the control group (Mean = 8.9286). The independent sample test results obtained  $p$  value = 0.000 ( $p < 0.005$ ), which means that there is an effect of oxytocin massage on breastfeeding in normal postpartum mothers in Sono Hamlet, Ketanen Village, Panceng Gresik District. So it can be concluded that oxytocin massage can accelerate breastfeeding<sup>8</sup>. From the results of interviews in the initial survey at Asnah's midwife clinic, midwives stated that 3 out of 5 mothers gave birth, 3 had breastfeeding slow or long after delivery. Therefore, the researchers chose the Asnah midwife clinic as the study site because research on the relationship of oxytocin massage to the onset of IV postpartum breastfeeding had not been done before<sup>9</sup>. Based on the description above, the researcher was interested in conducting a research on oxytocin massage in postpartum mothers and took the title " The Effect of Oxytocin Massage using the Onset of Breastmilk Expenditure in the Postpartum Mothers at Clinic Asnah Medan Tembung District in 2019"<sup>10</sup>.

## Method

This research is a quasi experimental study with a one group pre and post test design approach. In this study, there were 2 groups consisting of an intervention group that received oxytocin massage treatment and a control group that was not given treatment but still carried out observations. The population of this study were all 2 hour postpartum mothers at Midwife Asnah's clinic, while the sample in this study were 2 hour postpartum mothers, totaling 30 people with purposive sampling technique. Purposive sampling is sampling based on considerations and in accordance with the criteria desired by the researcher (Nursalam, 2013). The research sample used in this study were postpartum mothers who fit the researchers' inclusion criteria. Data analysis was carried out in two stages, namely by using Univariate analysis and Bivariate analysis using the Statistical Product and Service Solution (SPSS) 24.0 program.

## Result

### 1.1. Distribution of Average Onset of Breast Milk Expenditure (Hours) among Postpartum mothers in the Intervention Group

Group	Mean (hour)	Varians	N
Dispensing of breastmilk in postpartum mothers in the intervention group	4,26	.073	15

Table 1.1, it can be seen that the mean onset of postpartum maternal breastfeeding in the intervention group was 4.26 hours.

### 1.2. Distribution of Average Onset of Breast Milk Expenditure (Hours) among Postpartum mothers in the Control Group

Group	Mean (hour)	Varians	N
Dispensing of breastmilk in postpartum mothers in the control group	5,10	1,202	15

Table 1.2, it can be seen that the average onset of postpartum maternal breastfeeding in the control group was 5.10 hours.

### 1.3. Difference in Average Onset of Breast Milk Expenditure (Hours) in Postpartum Mothers in the Intervention Group and the Control Group at the Asnah Midwife Clinic

No.	Group	Mean (hour)	$\rho$ value	N
1	Intervention	4,26	0,026	15
2	Control	5,10		

Based on table 1.3, it can be seen that in the intervention group the average onset of breastfeeding was 4.26 hours, while in the control group it was 5.10 hours. The statistical test results obtained  $\rho$  value = 0.026 ( $\rho \leq 0.05$ ), which means that there is an effect of oxytocin massage with the average onset of breastfeeding.

## Discussion

### 1. Average of onset of breast milk expenditure (hours) in postpartum mothers in the intervention and control groups

Based on the results of the study, it showed that the intervention group had a mean onset of breastfeeding at 4.26 hours. In this study, oxytocin massage was carried out based on the Standard Operating Procedure (SOP) given to post partum mothers for 2 hours. While the results obtained in the group that did not get oxytocin massage (control) the mean onset of breastfeeding was 5.10 hours. With a long time the release of colostrum can be accelerated by non-pharmacological actions, namely through massage or stimulation of the spine, nerves will stimulate the medulla oblongata directly sending messages to the hypothalamus in the posterior hypophise to release oxytocin which causes the breasts to secrete milk. With a massage in the spinal area, it will relax tension and relieve stress so that the oxytocin hormone comes out and will help the release of breast milk. In

addition, the baby sucks on the nipple immediately after the baby is born with a normal baby, colostrum that drips or comes out is a sign of active oxytocin reflex. The results of this study are relevant to the results of Endah's (2011) study, which found that the treatment group spent an average of 5.8 hours of breastfeeding. This study was conducted on post partum mothers who gave birth at 2 hours post partum or after post partum mothers had early mobilization.

Massage along the spine (vertebrae) to the fifth-sixth rib, will stimulate the prolactin hormone produced by the anterior pituitary and oxytocin produced by the posterior pituitary, so that breast milk can automatically run more smoothly. In addition to facilitating breastfeeding, oxytocin massage provides comfort to postpartum mothers, reduces swelling (engorgement), reduces milk blockage, stimulates the release of the hormone oxytocin, maintains milk production when the mother and baby are sick. The mother's feeling of comfort during massage is a prerequisite for the success of the oxytocin massage. Breastmilk comes out from the first day to the fourth or seventh day after delivery, breast milk will come out on the first day (<24 hours). By not doing oxytocin massage, colostrum expenditure will experience a delay compared to mothers who received oxytocin massage. The hormone oxytocin will come out through stimulation to the nipples through the baby's mouth suction or through a massage on the spine of the baby's mother, with a massage on the spine the mother will feel calm, relaxed, increase the pain threshold and love her baby, so that the hormone oxytocin comes out and The milk quickly comes out.

Mothers who are not given oxytocin massage experience delays in the release of colostrum, this can occur because the mother's nipples are very small so that the production of the hormone oxytocin and the hormone prolactin will continue to decrease and the milk will stop. In addition, the expenditure of breastmilk is strongly

influenced by psychological factors, mothers who are always in a state of depression, sadness, lack of self-confidence and various forms of emotional tension will reduce the volume of breast milk and even milk production will not occur.

## 2. The Effect of Oxytocin Massage on the Average Onset of Breast Milk Expenditure in the Intervention and Control Groups

The results of calculations with the statistical analysis of the Independent T-Test on 15 respondents in the intervention group and 15 respondents in the control group obtained p value = 0.026 (<0.05), which means statistically  $H_0$  is rejected, thus it can be concluded that there is an effect on the average time of spending on breastmilk between the intervention group and the control group. These results indicated that there was a difference in the time of release of breastmilk between post partum mothers who were massaged with oxytocin (treatment) and mothers who were not given oxytocin massage (control). The oxytocin massage treatment is a way to help accelerate the release of breast milk or colostrum by stimulating massage on both sides of the spine, starting from the neck towards the shoulder blades followed by the ribs under the two breasts of the post partum mother.

Through massage or stimulation of the spine, neurotransmitters will stimulate the medulla oblongata to send messages directly to the hypothalamus in the posterior hypofise to release oxytocin, which causes the breasts to release milk. With a massage in the spinal area, it will also relax tension and relieve stress so that the oxytocin hormone comes out and will help the excretion of breast milk. Colostrum that drips or comes out is a sign of active oxytocin reflex. In fact, breastfeeding is not an activity that occurs automatically, it requires things that can motivate and change the way the mother views breastfeeding. Lack of smooth expressing of breast milk after birth needs to be addressed because

this will affect exclusive breastfeeding by the mother.

Research by Ummah in 2014 massage / massage is an effective supportive therapy to reduce physical discomfort and improve mood disorders. Reducing discomfort in nursing mothers will help smooth the reduction of breast milk. The increase in milk production in the treatment group can have a relaxing effect on the mother, which indirectly stimulates the hormone oxytocin, which can help the process of smooth milk production. In this study, the treatment group average colostrum expenditure time was 4.26 hours shorter than the control group average 5.10 hours. By doing a massage along the spine (vertebrae) to the fifth-sixth rib bone will stimulate the prolactin hormone released by the anterior pituitary and oxytocin hormone released by the posterior pituitary, so that milk comes out which occurs because the smooth muscle cells around the breast gland shrink. The cause of the muscles to shrink is the hormone oxytocin. In addition to facilitating breastfeeding, oxytocin massage provides comfort to postpartum mothers, reduces swelling (engorgement), reduces milk blockage, stimulates the release of the hormone oxytocin, maintains milk production when the mother and baby are sick. The feeling of comfort felt by the mother during the massage process is a prerequisite for the success of the oxytocin massage.

### Conclusion

Based on the results of the analysis and discussion of the effect of oxytocin massage with the onset of breastmilk release in fourth stage postpartum mothers at the Asnah clinic in 2019, it can be concluded:

1. The mean time of colostrum removal in post partum mothers in the oxytocin massage intervention group was 4.26 hours.
2. The mean time of colostrum expulsion in post partum mothers in the control group was 5.10 hours.

3. Oxytocin massage has an effect on the average time of releasing breastmilk in post partum mothers ( $p$  value = 0.026).

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## DETERMINANTS OF ANEMIA PREVALENCE IN URBAN AREAS IN THE WORKING AREA OF THE SIALANG BUAH HEALTH CENTER IN 2020

Edy Marjuang Purba<sup>1</sup>, Fitri Jelita<sup>1</sup>, Cristianna Simanjuntak

<sup>1</sup>STIKes Mitra Husada Medan, Medan - Indonesia

email: endypurba65@gmail.com

### ABSTRAK

**Background:** The prevalence of anemia in pregnant women at the Sialang Buah Health Center is quite high in 2019 (41.9%), 2018 (40.7%), 2017 (40.5%) and 2016 (32.3%). The prevalence of anemia among pregnant women in urban areas is still quite high (35.4%). The purpose of this study was to determine the determinants of anemia prevalence in pregnant women in Urban Areas in the working area of the Sialang Buah Health Center in 2020

**Methods:** The study is an analytic observational which is conducted to determine the determinants of anemia prevalence in pregnant women in the urban area in the working area of the Sialang Buah Community Health Center in 2020. The research sample was all pregnant women from urban areas (58 people). Hb blood levels were checked using a stick / Hb meter at the Sialang Buah Health Center. Pregnant women are declared anemic if the blood Hb level is <11gr / dl. The data collected was then analyzed univariate and bivariate.

**Results:** The results of bivariate analysis showed that there was a association between knowledge and consumption of Fe tablets with anemia in pregnant women in urban areas in the working area of the Sialang Buah Health Center in 2020. There was no association between teenage pregnancy, education, economic status and ANC visits with Fe with anemia in pregnant women in urban areas in the working area of the Sialang Buah Health Center.

**Conclusions:** It is suggested to Staffes of Sialng Buah Health Center to continue to carry out regular counseling to increase knowledge of pregnant women about anemia prevention and monitoring of Fe tablet consumption.

**Keywords:** anemia, knowledge, Fe tablet consumption, urban

### BACKGROUND

Maternal Mortality Rate and Infant Mortality Rate are indicators of successful development in the health sector. Maternal mortality rate refers to the number of maternal deaths starting from pregnancy, childbirth and childbirth. Maternal mortality and infant mortality are measures of the ability of a country's health services. WHO (2017) states that the Maternal Mortality Rate in Indonesia is quite high compared to the Maternal Mortality Rate in Southeast Asian countries such as Malaysia (29 / 100,000 live births), Thailand (48 / 100,000 KH), Vietnam (59 / 100,000 KH), and Singapore (3 / 100,000 KH). If compared with developed countries, the figures are very different, such as Australia (7 / 100,000 KH) and Japan (5 / 100,000 KH)

and one of the causes of maternal death is bleeding due to anemia.<sup>1</sup>

The results of the 2012 Indonesian Demographic and Health Survey stated that the maternal mortality rate (MMR) was 359 per 100,000 live births. The MMR is quite high and far worse than that of the poorest countries in Asia.<sup>2</sup> The 2015 Inter-Census Population Survey (SUPAS) states that MMR in Indonesia has decreased to 305 / 100,000 live births, but this is still far from the 2030 Sustainable Development Goals (SDGs) target of 70 per 100,000 live births. Based on the Indonesian Health Profile in 2018, it is stated that bleeding due to iron anemia is one of the main causes of maternal death with a proportion of 31.25%.<sup>3</sup> Anemia is a condition in which the number of red blood cells or the

concentration of oxygen carriers in the blood is insufficient.<sup>4</sup> Pregnant women are the group most prone to anemia, namely having a Hb less than 11gr / dl during pregnancy. Anemia is very dangerous for pregnancy, which can cause fetal death in the womb, abortion, and congenital abnormalities.<sup>5</sup>

The prevalence of anemia in pregnant women in Indonesia based on the 2018 RISKESDAS increased significantly from 2013 (37.1%) to 2018 (48.9%).<sup>6</sup> The prevalence of anemia in North Sumatra Province is in the range of 15 to 39%.<sup>7</sup> Anemia has become a priority health problem at the Sialang Buah Health Center in recent years. The prevalence of anemia in pregnant women at the Sialang Buah Health Center is quite high in 2019 (41.9%), 2018 (40.7%), 2017 (40.5%) and 2016 (32.3%).<sup>8</sup> The prevalence of anemia in pregnant women in urban areas is still quite high, so it needs a strategy and health program that focuses on overcoming the high prevalence of anemia in urban areas by utilizing available resources.

Anemia in pregnancy cannot be separated from the physiological changes that occur during pregnancy, the age of the fetus, and the condition of the previous pregnant woman. During pregnancy, the body will experience significant changes, the amount of blood in the body increases by about 20-30%, so it requires an increased supply of iron and vitamins to make hemoglobin (Hb). When pregnant, the mother's body makes more blood to share with her baby. The body requires up to 30% more blood than before pregnancy.<sup>9</sup>

The prevalence of anemia in 2019 in urban areas in the Sialang Buah Community Health Center is quite high, namely 35.4%. Some of the determinants that are suspected to be the cause of the high incidence of anemia are teenage pregnancy, education, knowledge, economic status, low antenatal visits and lack of maternal compliance in consuming Fe tablets. Based on the report of the Midwife Coordinator at the Sialang Buah Health Center, the proportion of

teenage pregnancies at the Sialang Buah Health Center is quite high. Some of them are pregnant at school age (Junior and High School) so that the level of knowledge and education needs to be investigated whether it also affects the incidence of anemia. The purpose of this study was to determine the determinants of anemia prevalence in pregnant women in the urban area in working area of the Sialang Buah Health Center in 2020.

## METHODS

The study is an observational analytic conducted to determine the determinants of anemia prevalence in pregnant women in the urban area in working of the Sialang Buah Health Center in 2020. The sample of this study was all pregnant women from urban areas (58 people) who made antenatal visits at the Sialang Buah Health Center. This area is used as a research location because it has a high number of anemia cases of pregnant women. The stages of this research began when the mother visited the Sialang Buah Health Center and then the pregnant women were interviewed with a questionnaire to find out their characteristics, and after that, the blood was collected from the veins. Hb blood levels were checked using a stick / Hb meter at the Sialang Buah Health Center. Pregnant women is considered anemia if the blood Hb level is <11gr / dl.

## RESULT

### Respondent Characteristics

**Table 1. Distribution of Pregnant Women Based on Characteristics**

No	Characteristics of Pregnant Women	f	%
1	<b>Teenage Pregnancy</b>		
	Yes	19	31.76
	No	39	67.24
2	<b>Education</b>		
	Low	27	46.55
	High	31	53.45
3	<b>Knowledge</b>		
	Bad	25	43.10
	Goog	33	56.90

4	<b>Economic Status</b>		
	Low	30	51.72
	High	28	48.28
5	<b>ANC Visit</b>		
	Irregular	23	39.66
	Regular	35	60.34
6	<b>Fe Tablet Consumption</b>		
	Not Enough	34	58.62
	Enough	24	41.38
	<b>Total</b>	<b>58</b>	<b>100%</b>

Based on Table 1. It can be seen that there were more respondents who were not teenage pregnancies, namely 39 people (67.76%). Based on the level of education, there were more pregnant women who had higher education levels, namely as many as 31 people (53.45%). Based on from the knowledge, there were 33 pregnant women who had good knowledge (56.90%). Based on economic status, there were more pregnant women who had low economic status, namely 30 people (51.72%). Based on from the ANC visits, more pregnant women who had regular ANC visits were 35 people (60.34%). Based on the consumption of Fe tablets, more pregnant women who consumed Fe tablets were not enough, namely as many as 34 people (58.62%).

### Prevalence of Anemia

The prevalence of anemia in pregnant women in urban areas in the working area of the Sialang Buah Health Center can be seen in the following table:

**Table 2. Distribution of Pregnant Women Based on Anemia Status in Urban Areas in the Working Area of the Siang Buah Health Center in 2020**

Anemia Status	Number (People)	%
Anemia	22	37.93
Normal	36	62.07
<b>Total</b>	<b>58</b>	<b>100,0</b>

Based on the table 2, it can be seen that the prevalence of anemia in urban areas in the working area of the Sialang

Buah Health Center is quite high, namely 37.93%. The number of pregnant women who did not get anemia was 36 (62.07%)..

### Bivariate Analysis

Bivariate analysis of several determinants with the incidence of anemia in urban areas in the working area of the Sialang Buah Health Center, Serdang Bedagai Regency can be seen in the following table:

**Table 3. Bivariate Analysis of Anemia Determinants in Pregnant Women in the Working Area of the Sialang Buah Health Center in 2020**

Variable	Anemia Status				RP (95%CI)	P-value	
	Anemia		Normal				Total
	n	%	n	%	n	%	
<b>Teenage Pregnancy</b>							
Yes	9	47.4	10	52.6	19	100.0	1.857 (0.83-3.93)
No	13	33.3	26	66.7	39	100.0	
<b>Education</b>							
Low	12	44.4	15	55.6	27	100.0	1.355 (0.65-3.47)
High	10	32.3	21	67.7	31	100.0	
<b>Knowledge</b>							
Bad	17	68.0	8	32.0	25	100.0	1.988 (1.67-4.59)
God	5	15.2	28	84.8	33	100.0	
<b>Economic Status</b>							
Low	14	46.7	16	53.3	30	100.0	0.966 (0.47-2.93)
High	8	28.6	20	71.4	28	100.0	
<b>ANC Visit</b>							
Irregular	12	52.2	11	47.8	23	100.0	1.711 (0.85-3.16)
Regular	10	28.6	25	71.4	35	100.0	
<b>Fe Tablet Consumption</b>							
Not Enough	19	55.9	14	41.1	34	100.0	2.481 (1.51-5.37)
Enough	3	12.5	21	87.5	24	100.0	

Based on the results of the bivariate analysis, it can be seen that there is a association between knowledge, Fe tablet consumption and anemia in pregnant women in urban areas in the working area of the Sialang Buah Health Center in 2020. From the results of the bivariate analysis it is also known that there is no association between adolescent pregnancy, education, economic status and ANC visits with anemia in pregnant women in urban areas in the working area of the Sialang Buah Health Center in 2020.



## DISCUSSION

The characteristics of pregnant women who were respondents in this study in the urban area in working area of the Sialang Buah Community Health Center, Serdang Bedagai Regency were that 19 people with status teenage pregnancy (67.76%), more pregnant women who had a high level of education, namely 31 people (53.45), more pregnant women who have good knowledge, namely as many as 33 people (56.90%), more pregnant women who have low economic status as many as 30 people (51.72%), more pregnant women 35 people (60.34) had regular ANC visits, and 34 people who consumed inadequate Fe tablets were more than 34 people (58.62%). The prevalence of anemia in urban areas in the work area of the Sialang Buah Puskesmas is quite high namely 37.93%. The results of the bivariate analysis stated that there was a relationship between knowledge of Fe tablet consumption and anemia in pregnant women in urban areas in the work area of the Sialang Buah Community Health Center in 2020. This means that the determinant of anemia prevalence in urban areas in the working area of the Sialang Buah Health Center is low knowledge and insufficient consumption of Fe tablets.

From this research it can be concluded that the lower the person's knowledge, the higher the risk of pregnant women for anemia. Change in practice which is also called open change due to a certain stimulus, is preceded by closed changes, namely changes in knowledge, then changes in attitudes, then changes in practice. This also applies to the practice or behavior of preventing anemia from pregnancy to delivery.<sup>10</sup>

Consuming iron tablets irregularly and insufficiently can result in inability to absorb iron optimally. Iron consumption should not be stopped after hemoglobin reaches normal values, but should be continued for another 2-3 months to restore iron stores. Giving iron for 2-3 months after hemoglobin becomes normal, what is

important in iron treatment is that it is continued until the peripheral blood morphology is normal and iron reserves in the body are fulfilled. Prior to treatment, the amount of iron needed must be calculated.<sup>11</sup>

Consuming Fe tablets in insufficient amounts will have an impact on the effectiveness of increasing red blood cells which is not optimal. Even though this Hb level can be improved by consuming blood booster tablets that have been given by health workers. Provision of Fe tablets as much as 90 grains during pregnancy is actually sufficient to meet the iron needs of pregnant women and fetuses. In an effort to improve the behavior of pregnant women in consuming Fe tablets, it is necessary to carry out continuous health education, such as in the class of pregnant women, screening or detection of pregnant women to monitor consumption of Fe tablets by involving health cadres.<sup>12</sup>

## CONCLUSIONS

The prevalence of anemia in urban areas in the working area of the Sialang Buah Health Center is quite high, namely 37.93%. More respondents in this study did not experience adolescent pregnancy, more had higher education levels, more had good knowledge, more had low economic status, more had regular ANC visits, and more consumed Fe tablets. not enough. The determinants of anemia prevalence in urban areas in the working area of the Sialang Buah Health Center are low knowledge and insufficient consumption of Fe tablets. Immediate treatment and follow-up is needed for pregnant women who are caught with anemia so that the anemia does not get worse. For the saffes of Sialng Buah Health Center, it is hoped that they will continue to carry out periodic counseling to increase the knowledge of pregnant women about the prevention of anemia and monitoring of consumption of Fe tablets.

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## THE EFFECTIVENESS OF TRIAL POSITION, HALF-SITTING POSITION AND DORSAL RECUMBENT IN STAGE II LABOR TO REDUCE TRAUMA IN NORMAL LABOR IN THE HOSPITAL. RHIDOS

Marlina L. Simbolon<sup>1</sup>, Ingka Kristina Pangaribuan<sup>2</sup>, Kamelia Sinaga<sup>3</sup>, Annisa Grananda<sup>4</sup>

<sup>1</sup> STIKes Mitra Husada Medan

correspondence author: Telepon: 082164003047, E-mail

[simbolon.marlina@yahoo.com](mailto:simbolon.marlina@yahoo.com)

### Abstract

The high rate of cesarean section delivery is influenced by many things. One of them is the trauma of childbirth to the mother due to the long labor time. This can be due to the incorrect position of the labor. Most of the maternal and perinatal deaths occurred during delivery. One of the causes is long period II (37%) and asphyxia in infants (28%) (Depkes RI, 2009).

The aim of the study was to determine the differences in the position of half-sitting, tilted to the left and dorsal recumbent labor towards the length of the second period in the hospital. Rhidos 2020. This research is a static experimental group comparison study, the sample of this study were all primigravida maternity with normal delivery care, divided into 3 groups, namely the group with half-sitting labor position as many as 20 respondents, the left tilted labor position group as many as 20 respondents. group of 20 people with the dorsal recumbent position. The study was conducted at the hospital. Rhidos City of Medan in 2020.

Data analysis used univariate analysis presented with frequency distribution, and bivariate analysis to determine the difference in the length of second stage with left tilted position and semi-fowler / half-sitting position using the independent T test.

The results showed that the half-sitting labor position group was 87.5 minutes, obtained p value = 0.029, which means the p value > of alpha (0.05), in the half-sitting position with  $\alpha < 0.05$  (p-value = 0.029) and in the dorsal recumbent position with  $\alpha < 0.05$  (p-value = 0.001) It can be concluded that Ho is rejected and Ha is accepted, meaning that there is a difference in the effectiveness of the oblique position, half-sitting position and dorsal recumbent position on the smoothness of the labor process.

Keywords: Old Kala II, Half Sitting Position, Left Tilt Position, Dorsal Recumbent Position

### Introduction

Childbirth is the process of passing live products of conception from the uterus through the vagina to the outside world. The labor process is divided into four stages, namely stage I, during the opening of the cervix or birth canal, where the cervix opens until it is 10 cm wide. Stage II is called when the fetus is released. Stage III is called the discharge and expulsion of the placenta. Stage IV early observation of post partum hemorrhage (Wiknjastro, 2005).

Maternal Mortality Rate (MMR) in the world reaches 289,000 inhabitants. MMR in Southeast Asia, namely Indonesia 190 people, Vietnam 49 people, Thailand 26

people, Brunei 27 people, Malaysia 29 people. Most of the maternal deaths occur in developing countries due to lack of access to health services, lack of facilities, late delivery assistance accompanied by low social and economic conditions and education (WHO, 2014).

Maternal death can occur during the second period of labor. The causes include the long second period due to the position during childbirth, the wrong head of labor, his abnormalities, the wrong way of pushing so that it can cause asphyxia in babies, fetal death, uterine inertia, fatigue in the mother (2010). Rhidos Hospital In the city of Medan, which previously started with the

Independent Practice Midwife, is a place for delivery assistance services that are directly carried out by midwives. Based on the data above, the researcher is interested in conducting research on the differences in the position of half-sitting labor, left tilt and dorsal recumbent position with respect to the length of the second period.

**Research Method**

This study is a static group comparison experimental study (comparison of static groups), namely observing the experimental group (labor position tilted to the left), the experimental group (half-

sitting labor position) and the experimental group of labor positions (dorsal recumbent) (Notoatmodjo, 2010). The data collection technique is to use primary data which is collected using a checklist and partograph as a basis for observing the length of the second period. Respondents who met the inclusion criteria were grouped into one of the respondent groups in the following order: Respondent 1 was put in the left tilted position and Respondent 2 was grouped in a half-sitting position and respondent 3 was placed in a dorsal recumbent position and so on until the number of samples in each group was 20 person.

**Research Result**

**A. Univariat Analysis**

**Tabel 4.1 Distributio Frequency For Smoothness of The Labour Procces on the Tilted position**

Smooth Delivery Procces	N	Mean	SD	Minimum	Maximum
Tilt Position	20	87,75	90,00	50	130

From table 4.1 it is found that of the 20 respondents the fastest process of delivery was 50 minutes and a maximum of 130 minutes or 1 hour 10 minutes and the average length of time

**Tabel 4.2 Distribution Frequency For Smoothness Of the labour on Half Sitting Position**

Smooth Delivery Procces	N	Mean	SD	Minimum	Maximum
Half Sitting Position	20	70,00	62,50	30	130

From table 4.2, it is found that of the 20 respondents the fastest delivery process is 30 minutes and a maximum of 130 minutes or 1 hour 10 minutes and the average length of labor in stage II with a half-sitting position is 70 minutes.

**Tabel 4.3 Distribution Frequency For Smoothness Of the labour on dorsal recumbent position**

Smooth Delivery Procces	N	Mean	Minimum	Maximum
dorsal recumbent Position	20	30	20	40

**Tabel 4.4 Uji Normalitas data**

Smooth Delivery Procces	Mean	Median	SD	Shapiro-wilk		
				Statistic	df	P-Value
Tilted Position	87,75	90,00	23,646	0,967	20	0,692
Half Sitting Position	70,00	62,50	25,649	0,919	20	0,094

Table 4.3 The results of the data normality test using the Shapiro-Wilk test, namely the smoothness of the delivery process with a tilted position P-Value > 0.05, namely 0.692 and the smoothness of the delivery process with a half-sitting position P-Value > 0.05, namely 0.094, then it is concluded that the data is distributed normal, so that a bivariate analysis can be done with the independent t-test sample t-test.

#### B. Bivariat Analysis

**Tabel 4.4 The Effectivitas of trial Position, Half Sitting position, dorsal recumbent position in stage II labour**

Smooth Delivery Procces	N	Mean	SD	P-Value
Tilted Position	20	87,75	23.646	0,029
Half Sitting Position	20	70,00	25,649	0,029
Dorsal Recumbent Position	40		10,02	0,001

From table 4.4 the analysis results of the independent sample t-test test in an oblique position with  $\alpha < 0.05$  (p-value = 0.029), in a half-sitting position with  $\alpha < 0.05$  (p-value = 0.029) and in the dorsal position recumbent with  $\alpha < 0.05$  (p-value = 0.001) with the conclusion that  $H_0$  is rejected and  $H_a$  is accepted, meaning that there is a difference in the effectiveness of the tilted position and the half-sitting position on the smoothness of the delivery process.

#### Discussion

In the second stage of labor, the mother is advised to try comfortable positions during labor and deliver the baby by making it easier for the midwife to assist in a more comfortable delivery. Changing the position of labor during stage II can help labor progress. In this study, it was found that there was a difference in the smoothness of the second stage of labor between half-sitting and oblique positions. The second stage in the oblique labor position group was 87.5 minutes, while the

second stage in the half-sitting labor position was 70 minutes.

The left tilt position has the advantage of giving the mother a relaxed feeling to get the baby out. The oblique position makes it more comfortable and effective for the mother to press and helps repair the occiput transverse to rotate into the occiput anterior position and makes it easier for the mother to rest between contractions if she experiences fatigue. Meanwhile, the semi-sitting position has advantages, namely the flow of the birth canal that needs to be taken to get out shorter and the gravitational force of the earth to lower the fetus into the pelvic cavity.

The lying position on the left side can reduce pressure on the inferior vena cava so that it can reduce the possibility of hypoxia because uninterrupted oxygen supply can provide a relaxed atmosphere for mothers who are tired and can prevent lacerations / tears of the birth canal.

When assisting childbirth, especially during the second stage of labor, mothers are advised to try comfortable positions during labor and deliver babies with the advantage of making it easier for midwives to help deliveries and deliveries more comfortably (Saifudin, 2006). Changing positions regularly during the second stage can help progress in labor (JNPK-KR, 2008). In this study, it was found that there was a difference in the average value of the second stage between half-sitting and left tilted labor positions. The length of the second stage in the half-sitting labor position group was 26.87 minutes, while the second stage in the left oblique labor group was 23.60 minutes, with a difference in the mean value of 3.27 minutes.

This is not in line with Syarifah's research (2013) which states that there is no significant difference between the side position and the half-sitting position on the progress of the second stage of labor at BPM Palembang City. This research is supported by Nurul (2013) that there is no relationship between the left tilt position

and the process of accelerating the reduction of the fetal head.

The results of the T test obtained in this study could occur due to several factors, including the power factor, passer, passage, maternal psychology, and birth attendants. This birth attendant can help the mother to stay calm and relaxed, so the helper is recommended to facilitate the mother in choosing her own position of giving birth and explaining the alternatives of the position of giving birth if the position chosen by the mother is not effective. (Sumarah, 2009). So that it can be analyzed that the choice of the position of giving birth does not affect the progress of the second stage of labor, because the position of giving birth is influenced by the comfort of the mother, there is no element of coercion. As for other factors that influence the delivery process, namely maternal psychology such as physical and psychological preparation, and delivery assistance from the closest family.

### Conclusion

Proportion of oblique and half seated labor positions in the hospital. Rhidos Medan City with delivery times <2 hours were 18 people (90%) respectively. The average value of the second stage of labor in oblique labor position was 87.75 minutes and half-sitting labor was 70 minutes and the dorsal recumbent position was 40 minutes. The results of the t-test analysis of the independent sample t-test in a slanted position with  $\alpha < 0.05$  (p-value = 0.029) and in a half-sitting position with  $\alpha < 0.05$  (p-value = 0.029) and in the dorsal recumbent position with  $\alpha < 0.05$  (p-value = 0.001) with the conclusion that  $H_0$  is rejected and  $H_a$  is accepted, it means that there is a difference in the effectiveness of the tilted position and the half-sitting position on the smoothness of the delivery process. It is hoped that health workers pay more attention to the needs of labor positions for mothers who give birth.

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## PERSONAL BELIEF ON THE ACCESSIBILITIES OF FAMILY PLANNING PROGRAM TOWARDS POOR COUPLES OF REPRODUCTIVE AGE AT SABU RAIJUA DISTRICT

Aysanti Yuliana Paulus<sup>1</sup>, Arman Rifat Lette<sup>2</sup>

[aysantiyp@gmail.com](mailto:aysantiyp@gmail.com),  
Citra Bangsa University

### ABSTRACT

One of the strategic decisions taken by the Indonesian government to reduce the rate of population growth is the national family planning (FP) program. One of the goals of the family planning program is to spell pregnancy using contraceptive methods for pregnancy prevention and family planning. Aim/Objective to figure out the personal belief on the accessibilities of family planning program towards poor couples of reproductive age at Sabu Raijua District. Material and method is a qualitative study with a phenomenological research design. The main respondents are never-user (contraceptive user), the supporting informants which are health practitioners, family planning officers and the community leaders. The data collection is using observational and in-depth interview. The study shows the personal believe is caused by internal and external factors. The category of internal factors related to family planning access causes health problems and illnesses. Some related aspects such as the existence of local religious believe (jingitiu), a rumor about infertility causing by family planning, women perceived incompatible for using contraceptive methods without any prior attempt. External factor is there is the government programs that can finance pregnant women and children. There is an important role of health practitioners to provide an accurate information and education of family planning and the side effects for the community. Despite of any wrong believes of contraceptive and family planning, the community have confident and convincing for using contraceptive methods. Inter-sectors collaboration is needed to succeeded the government program.

**Keywords:** Family Planning, Personal beliefs, Poor Couples Of Reproductive

### Introduction

The high rate of population growth is currently a major problem in Indonesia. The high number of teenage pregnancies in Indonesia due to adolescent premarital sexual behavior. One reason is the easy access to information and exposure to pornographic media (1; 2). One of the strategic decisions taken by the Indonesian government to reduce the rate of population growth is the national family planning (FP) program. One of the goals of the family planning program is to spell pregnancy using contraceptive methods for pregnancy prevention and family planning (3). Family Planning is the use of methods of regulating fertilization to help a person or family achieve certain goals. The purpose referred to here is a deliberate pregnancy regulation

by the family, which is not against any applicable law or legislation as well as the Pancasila morals and for family welfare. The general purpose of family planning medical services is to improve the welfare of mothers and children and families in order to realize NKKBS (4).

Based on the data obtained from the National Family Planning Coordinating Agency (BKKBN) of East Nusa Tenggara Province, the number of female acceptors in 22 regencies/ cities were more than the number of male acceptors. Tis proved that the level of men participation in family planning program was still low compared to women. In the last 3 years, the number of new women acceptors was continuously increased. And at Sabu Raijua District had the second lowest number of new FP



participants who use contraceptive method, after Nagekeo District. Another concerning fact was the absence of users of IUD, men sterilization method and women sterilization method in Sabu Raijua District was zero (5)

Many factors were causing women or couples of reproductive age to have no access family planning service there are Meager knowledge and understanding of family planning programs, Physical environment factors such as: transportation, distance from home to health facility, availability of contraception, and Socio-cultural environment factors such as beliefs, existing norms and the influence of significant others. Personal belief is a mental condition based on a person's situation and social context. When a person makes a decision, he or she will prefer based on the him or her believed. Social capital can be divided into two dimensions, cognitive and structural. In other words, this dimension has the perception of motivational or encouraging behavior, sharing and mutual belief with each other. Existing belief will be related with motivation or encouragement to behave in community.

**Method**

Type of research is qualitative study with an exploratory descriptive design and a

phenomenological approach. Data was collected from April to June 2019 at Sabu Raijua District. The main informants were the Fertile Age Couple (PUS) especially women who had not become FP acceptors and drop out (DO) status. Supporting informants were health workers, family planning Field officers and community leaders. Data collection is done by: In-depth interview and Observation. The informants were taken with purposive sampling technique. The first in-depth interview was conducted with main informants, namely women who had not become family planning acceptors or who have Drop Out (DO) status. Interviews were conducted at the informant's house or at a health facility. Furthermore, in-depth interviews were conducted with health workers, family planning field workers, and community leaders. Interviews were conducted after the informant signed an informed consent. Researchers also made observations as long as research.

The data were analyzed qualitatively, with the Miles and Huberman Models. Steps as follows 1) make a transcript; 2) perform data coding using an open code program; 3) categorizing information (display the data) 4) Interpreting Information and conclusions.

**Table.1 distribution of informant characteristic**

<b>characteristic</b>	<b>n</b>	<b>Percent (%)</b>
Main Informants	11	68.7
Supporting Informants	5	31.3
<b>Main Informants:</b>		
women who had not become FP acceptor	9 person	56.2
women with the status of Drop Out	2 person	12.5
<b>Supporting Informants:</b>		
FP Field Officer	1 person	6.3
Community Leader	1 person	6.3
health workers	3 person	18.7
<b>Education:</b>		
No education	9 person	56.2
Junior High School	2 person	12.5
Senior High School scholar	1 person	6.3
Bachelor	4 person	25.0
<b>Sex:</b>		

Male	2 person	12.5
Female	14 person	87.5
<b>Age:</b>		
< 25 Age	3 person	18.7
25-40 Age	6 person	37.5
≥ 40 Age	7 person	43.8
<b>Work:</b>		
Housewife	8 person	50.0
Farmer	4 person	25.0
Government employees	4 person	25.0

Based on the table.1 shows that the main informants were 68.7% and supporting informants were 31.3%. The main informant is more women who had not become FP acceptor than women with the status of Drop Out and the supporting informant is more health worker than FP

field officer and community leader. According to the sex most of them are women with the most age between 25 to 40 years, and the type of work more housewife than farmer and government employees.

**Table 2. Result of the Thematic Analysis**

Theme	Category	Key words
Personal belief caused by internal factors	FP program was causing health problems and causing illness	- Menstrual disorders - Bleeding, - Illness (gout, and dizziness) - Obesity (fat with a disease in the body)
	Religious believes (jingitui)	- Do not trust and do not want to come into contact with modern health services, - Consider family planning services a taboo, - There is still the belief that “many children, many fortune”
	Fear of being infertile	Fear using FP and no more children
	Belief in natural birth control rather than modern birth control	More compatible with natural birth control, does not want to be drug dependent
	Feeling incompatible with FP even though they have never tried it	Incompatible with FP devices and fear of not compatible because they have tiny body
Individual trust caused by external factors	There are Government program that can finance pregnant women and children	They stopped participating in FP because they got money, there is a Government program that can help during pregnancy

**Discussion**

Based on table 2. Shows that personal belief is influenced by two factors, namely internal factors and external factors. The informant stated that during joining the

family planning program is causing health problems such as menstruation disorder and bleeding so the mother decided to stop following the family planning program or Drop Out. The FP field officer also stated

that there were women who decided to stop participating in the family planning program due to menstrual disorders. Generally, injection contraception, using the hormones estrogen and progesterone so that an increase in the amount of the hormones estrogen and progesterone in the body with androgenic effects that can causing menstrual disorders or menstruation becomes not smooth (6).

The informant also stated that by following the FP Program it is causing obesity and become sick (fat but there is a disease). The results of the research by Sriwahyuni and Wahyuni (2012) also showed that respondents who used hormonal contraception for more than one year would causing a weight gain of 85.7% and there was a relationship between the length of hormonal contraceptive use and weight gain. Because there are fears of side effects that may arise from joining the family planning program so there are mothers who have not or do not want to become family planning acceptors. Side effects are something that can happen to the mother use acceptor, but all of these can be overcome if the mother always consults with health workers to find the best solution (to replace contraceptive methods, etc.) (7).

The results of research by Nault, et al (2013) showed that women who participated in the family planning program felt and can be increasing weight gain of 5.3 kg. The use of implantable and injectable contraceptive methods is more likely to make weight gain among its users. Injection contraception method, using the hormones estrogen and progesterone, resulting in an increase in the amount of the hormones estrogen and progesterone in the body with androgenic effects. The hormone progesterone stimulates the appetite control center in the Hypothalamus. This causes an increase in acceptor appetite and an increase in body weight.

The informant also stated that there was an ancestral belief that family planning could have an adverse effect on mother and child, and related to (local) beliefs in Sabu

that's called Jingitui, where people who still had Jingitui's faith were less willing to come in contact with modern health services. Local beliefs that emerge and develop in an area with different backgrounds in life, traditions, customs and culture show different characteristics from each other. That is, a local belief contained in an area will not be the same as a local trust contained in another region. The similarity of some aspects of local trust can occur as an expression of spirituality and a form of practice of trust, but each local belief will reveal its own characteristics and characteristics (8). The existence of hereditary local trust is also related to access to family planning services where the mother does not want to be a family planning acceptor because of hereditary ancestors' belief that family planning can cause bad effects.

The FP Field Officer and health workers also stated that women in their work areas still feel taboo with birth control method especially IUD. This causes the women to have no intention to join the FP Program. The informant also stated that there are still families believe that "many children, many fortune" Its supporting by the knowledge of the couples of reproductive age and low of social economic make more stigma about their believe that the more children will take care of them in the future or old age (9).

Women had not become FP acceptors also stated that until now they have not to participated in FP programs because of fears of suffering from disease. Fear is an emotional response to threats. Fear is a reaction that arises within the individual, then moves the individual to protect herself against stimuli or dangers from the outside, keep away from something that can hurt themselves or other suffering. (10)

The informant also stated that she did not want to become family planning acceptors because of government assistance that could guarantee his life along with his children. women had motivation to be able to get government assistance because of

guarantees for pregnant women and mothers who have children and toddlers. This causes mothers to be reluctant to become the family planning acceptors because they are sure they will get the assistance. Behind that, pregnancy at close range can threaten the health of the mother and her child. The need to pay attention to the ideal distance of pregnancy also helps prevent premature babies and / or low birth weight babies (LBW) (3).

### Conclusion

Personal belief greatly influences accessing family planning services. Existing believe is also based on the knowledge they have, personal experiences, and social relationships with others. The role of health workers is very important in providing correct understanding and understanding of family planning and the side effects that may arise, so that people are not afraid and do not have the wrong understanding or belief related to family planning. Cross-sectoral cooperation also needs to be carried out so that Government programs do not conflict with each other.

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## THE EFFECTIVENESS OF YOGA IN DECREASING MENOPAUSAL SYNDROME COMPLAINTS TO IMPROVE QUALITY LIFE FOR MENOPAUSAL WOMEN AT MEDAN JOHOR PUBLIC HEALTH CENTER 2020

Imarina Tarigan<sup>1</sup>, Mediana Beru Sembiring<sup>2</sup>

Program Studi Kebidanan Sekolah Tinggi Ilmu Kesehatan Mitra Husada Medan

Telepon : (061) 8367405. Fax.(061)8367405

[Husada.mitra@yahoo.co.id](mailto:Husada.mitra@yahoo.co.id)

### ABSTRACT

**Background** Menopause causes changes ovarian function which is automatically affect to hormone production that can cause of various complaints. The increases of the number of elderly women will cause its own problems, that is the appearance of complaints during menopause that can affect to health. It causes discomfort and sometimes causes disruption in daily work, so it can affect for quality of life menopausal women. Yoga is one of effort to unites physical and physical strength to stimulate an increase in beta endorpine production to reduce complaints due to menopause.

**Objective** This research aims to determine whether yoga is effective in reducing complaints of menopause syndrome.

**Methods** This research used a quasi-experiment design and pretest and posttest one group. Interventions were given to menopausal women at Public Health Center of Medan Johor from June to September. The respondents were 89 menopausal women using purposive sampling technique. The Primary data collection is obtained from respondents directly with a questionnaire guideliness. The Complaints about menopause both physics and psychological, were assessed using a menopause syndrome research instrument questionnaire adopted from the Menopause Rating Scale (MRS).

**Results** The results showed the mean pre test was 24.15 with SD 5.193, the mean post test was 10.20 with SD 4.093, it's mean there was a differences of average before and after getting yoga. The results of the paired sample t-test obtained P-Value of 0.000,

**Conclusion** that means yoga is effective in reducing complaints of menopausal syndrome to improve the quality life of menopausal women.

**Keywords** Menopause, Menopause syndrome, Yoga, Quality of life

### INTRODUCTION

Reproductive health issues do not only cover women's reproductive health in a narrow manner by only linking to problems of pregnancy and childbirth, but various kinds of problems in the reproductive health of adult women which are the focus of reproductive problems itself (Manuaba, 2012).

One of the development goals in Indonesia is to improve the public health status. In order to achieve these goals, various programs have been launched by the government as an effort to deal with existing health problems, Yanti (2015). The demographic survey in 2017 stated that many adult women have experienced changes in the number of life expectancy (UHH) > 60 years which has

increased rapidly, it can be estimated that Indonesia's population in 2020 will reach 28.8 million people or around 11% of the total population of Indonesia. In 2021 it is estimated that the population will reach 30.1 million people, which is the 4th in the world after China, India, the United States, and by 2050 it is estimated to be 50 Million People.

The projection of Indonesia's population based on the results of the population census in 2017 is 261890.90 people, population of North Sumatra 2191140.00 people, Total female population aged 45-59 years is 1,035,350 people, the emergence of several diseases is often experienced by Premenepausal women starting from an increase in cardiovascular disorders 20.30%,

Increased Vessels 41.70%, Insomnia 12.60%, Anxiety (Mental Disorders) 23.55%, to Osteoporosis 62.40% which is the impact of life problems for Elderly Women (Premenopause).

In Putri's research, et al (2014), menopause is a period that causes some women to experience physical and psychological disorders and can affect their daily activities and their quality of life. According to Greenblum, Rowe and Neff (2012), in a study by Syarifah, et al. (2014), said that when women experience menopause can affect the quality of his life. More than 80% of women show symptoms physically or psychologically at the time of approaching menopause with various levels of disturbances and disruptions to their lives.

The climacterium is an intermediate period between the reproductive period and the senium accompanied by characteristic symptoms caused by extreme hormonal changes. As a result of this condition, there are physical changes accompanied by several psychological disorders, so that it requires the right handlers, Yanti (2015).

Physical changes felt by menopausal women due to decreased estrogen and progesterone hormones are changes in menstrual patterns where bleeding will appear for several months and will eventually stop altogether, hot flush, these symptoms will be felt starting from the face to the rest of the body, feeling hot accompanied by a reddish color on the skin and sweating, this hot feeling will affect the sleep patterns of menopausal women which will eventually making menopausal women sleep deprived and exhausted. Hot flush is experienced by about 75% of menopausal women and will be experienced for 1 year and 25-50% of women will experience hot flush for 5 years. Hot flush can also affect menopausal women to experience night sweats which will make menopausal women feel uncomfortable (Widyastuti, et al, 2010).

Short-term health problems in menopause, including symptoms of vasomotor disorders, hot flus, heavy sweating, heart palpitations, sleep disorders, long-term health problems in

menopause, osteoporosis, due to deficiency of the hormone estrogen so that bones are easily brittle, Irianto (2015). In Kargenti's (2013) study, during the menopause phase there will be several symptoms accompanied by complaints that often make women feel anxious and feel depressed due to significant changes in the hormonal system that cause discomfort.

Premenopause is one of the reproductive health problems in women. More than 80% of women menopause experiences symptoms at menopause and in some will last for several years so that the quality of life will be disturbed. Besides having to be able to adapt to menopausal complaints, the emergence of several diseases is often experienced by menopausal women. From a medical point of view there are 2 of the most important changes that occur at menopause, namely the increased likelihood of heart and blood vessel disease, and loss of minerals and protein in the bones (osteoporosis). The government's efforts in addressing the Constitution 36 Year 2009 Article 138 have been carried out in each health facility. Puskesmas Medan Johor as a health facility in the city of Medan has also carried out several activities that support government efforts in the field of improving public health status. For the elderly community, PROLANIS and posyandu for the elderly are carried out

### **Materials and Methods**

This research was conducted at Puskesmas Medan Johor Jln Karya Jaya, Pangkalan Mansyur, starting from June to September 2020. The purpose of this study was to determine the effectiveness of yoga. Against the Decrease in Complaints of Menopausal Syndrome to Improve the Quality of Life of Menopausal Women in the Work Area of the Medan Johor Health Center in 2020. This type of research is quantitative research with Quasi experimental design and one group pretest and posttest design, namely research conducted to provide yoga to the sample group, giving intervention

carried out for 3 months, measuring complaints of menopause syndrome with the Menopause Rating Scale (MRS). Before the bivariate data was tested with the paired sample t-test, previously the data normality test was carried out. The population in this study were all menopausal women who checked themselves and routinely participated in the Chronic Disease Control Program (PROLANIS) in the work area of the Medan Johor Health Center.

## Result

**Table 1 Frequency Distribution of Respondent Characteristics in the Work Area of the Medan Johor Health Center in 2020**

Characteristics	Amount	
	F	%
<b>1 Age (th)</b>		
< 50	32	35,9
≥ 50	57	64,1
<b>2 Education</b>		
Primary school	7	19,1
Junior high school	4	24,3
Senior high school	59	65,3
College	19	21,3
<b>Parity</b>		
< 2	16	18,0
≥ 2	73	82,0
<b>Occupation</b>		
Work	26	29,2
Not Work	63	70,8
<b>Duration of Menopause</b>		
< 2	33	37,1
≥ 2	56	62,9

Table 1 shows that the majority of respondents with high school education are 59 people (65.3%), the majority with parity ≥ 2 are 73 people (82.0%), the majority are worked as many as 63 people (70.8%), and the majority with menopause duration ≥ 2 years as many as 56 people (62.9%).

**Table 2 Data Normality Test**

Variabel	Mean	SD	Shapiro-wilk	P-Value
			Statis Df	
Menopause Syndrome Pre Test	24,15	5,193	0,983 89	0,200
Menopause Syndrome Post Test	10,20	4,093	0,957 89	0,095

Table 2 The results of the normality test of quality of life score data before and after yoga using the Shapiro-Wilk test ( $p > 0.05$ ), it is concluded that the data is normally distributed, then the t-test is carried out. The results of data normality test calculations can be seen in the attachment. For the pre-test value, the mean menopause syndrome was obtained or a mean of 24.15 with SD 5,193. Meanwhile, for the post test, the mean menopause syndrome was obtained, or a mean of 10.20 with SD 4.093.

**Table 3 Results of the Analysis of Complaints of Menopausal Syndrome in Menopausal Women Before and After being given Yoga by Using the T-Paired Sample T-Test**

Variabel	N	Mean	SD	P-Value
Menopause Syndrome Pre Test	89	24,15	5,193	0,000
Menopause Syndrome Post Test	89	10,20	4,093	

From table 3, the results of the t-test analysis show that the value with  $\alpha < 0.05$  ( $p\text{-value} = 0.000$ ). From the results of these statistical tests, it was found that there was a significant difference between the total score of quality of life after yoga and quality of life before yoga. There is a difference

rates between menopause syndrome before yoga and menopause syndrome after yoga. This means that yoga is effective in reducing menopausal syndrome complaints in menopausal women so that it can improve the quality of life for menopausal women. For the pre-test value, the mean menopause syndrome.

### Discussion

The results showed that the majority of menopausal women in the work area of the Medan Johor Community Health Center were with age  $\geq 50$ , namely 57 (64.1%) menopausal women. In terms of education, the majority are with high school education, namely 59 (65.3%) menopausal women, the majority of respondents with parity  $\geq 2$  are 73 people (82.0%), the majority do not work as many as 63 people (70.8%), and the majority with menopause duration  $\geq 2$  years as many as 56 people (62.9%).

was obtained, or a mean of 24.15 with SD 5.193. Whereas for the post test, it was obtained an average menopause syndrome or mean 10.20 with SD 4.093 meaning that there was a difference in the average before and after get yoga.

The results of the t-test analysis showed  $\alpha < 0.05$  (p-value = 0.000), yoga is effective in helping reduce menopausal syndrome complaints to improve the quality of life for menopausal women. The results of this study are in line with research conducted by Astari (2014) at Puskesmas Sukahaji Majalengka Regency and research conducted by Triyaningsih (2016) shows that there is a relationship between menopause syndrome from a physiological and psychological aspects with quality life of menopausal women, which means that complaints of menopause syndrome are decreasing, the quality of

life for menopausal women is increasing.

In this study, most of the respondents experienced mild and moderate menopause symptoms. Women who experience menopause symptoms in the mild and moderate categories will more easily adapt to the changes that occur so they do not affect the quality of life. The results of this study are in line with the results of research conducted by Rosida, et al., 2017 which states that there is a significant influence between yoga and quality of life related to health, and there is a significant difference between the quality of life scores of menopausal women who do yoga with menopausal women who do not. do yoga.

Women who have been afraid to face the arrival of pre-menopause and menopause. The feeling of burning in the body and sweating that is continuously resolved or at least reduced. By doing yoga, the symptoms that accompany menopausal syndrome can be alleviated. Even yoga is said to improve mental function. From research conducted by several experts, shows the superiority of yoga. This too means showing that physical activity also improves cognitive function by emphasizing proper breathing, rhythmic breathing with body movements, relaxation, and resting the mind, Proverawati (2016).

The yoga posture will help balance the endocrine system, which is controlling hormone production and heart rate. This body position supports weight, helps and prevents osteoporosis. Cooling and breathing during yoga is very good when there are hot flushes coming, helps reduce body heat and night sweats, improves blood circulation and helps oxygen enter cells, and maintains memory by reducing the hormone cortisol, Mulyani (2015).



According to Kargenti (2010) the decline in ovarian function (egg cells) results in a reduction in hormones, especially estrogen and progesterone, in our bodies. This deficiency of the hormone estrogen causes physical and psychological complaints that will affect the quality of life of women. Quality of life is individual perceptions of their functioning in the field of life. If this is not addressed properly, she will feel uncomfortable with the condition that is her nature as a woman. During the menopause phase there will be several symptoms accompanied by complaints that often make women feel anxious and feel depressed due to significant changes in the hormonal system that cause discomfort. Symptoms and complaints that accompany the menopause phase. If menopause is linked to the dimensions of quality of life that have been issued by WHO, it is clear that the quality of life for menopausal women has decreased.

In this study, most menopausal women experienced mild and moderate menopausal symptoms and had a relatively good quality of life. Another case with menopausal women who have severe menopause symptoms actually have a poor quality of life. Women who experience symptoms menopause in the mild and moderate categories will more easily adapt to the changes that occur so that it does not affect the quality of life. When compared with menopausal women with mild menopause symptoms, menopausal women with severe menopausal symptoms admitted that their pain inhibited their activities more often, had less vitality, were less satisfied with the quality of their sleep, and were less satisfied with their ability to work and to carry out daily activities. This may be associated with menopausal symptoms such as insomnia, frequent physical fatigue and

pain in joints, and decreased memory is more common in them. The handling of psychological problems that arise during the menopause phase will be very effective if it is handled with psychological approaches. Yoga is a relaxation technique that is appropriate for menopausal mothers to do because in addition to providing physical benefits, yoga can help provide comfort. for psychics, especially menopausal women who experience various menopausal syndrome complaints, Proverawati (2016).

According to the authors' assumptions, menopause symptoms and quality of life for menopausal women are closely related concepts. The severity of menopausal symptoms experienced by menopausal women will have an impact on the quality of life. Menopause is a life process that cannot be avoided but also not to be feared / worried about its presence. Likewise, in a mental condition that is unstable and turbulent, the individual needs help psychologically. to restore their self-confidence, straighten their way of thinking, point of view and how they feel so that they return to being realistic, able to see the real reality and able to solve the problem in ways that can be accounted for.

To reduce complaints of menopause syndrome or even eliminate these complaints, it is necessary to apply yoga as a positive hobby and be applied regularly. In addition, providing proper preparation and positive thinking will enable women to face productive menopause (Romauli, 2017).

#### **Thankyou note**

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## THE RELATIONSHIP BETWEEN KNOWLEDGE OF PREGNANT WOMEN WHO HAVE ANEMIA AND COMPLIANCE WITH CONSUMING FE TABLETS AT RIMENDA'S CLINIC MEDAN CITY

Retno Wahyuni<sup>1</sup>, Berti Wulandari<sup>2</sup>, Kismiasih Adethia<sup>3</sup>

[retnowahyuni.rw25@gmail.com](mailto:retnowahyuni.rw25@gmail.com)

STIKes Mitra Husada Medan

### ABSTRACT

**Background:** Almost half or as many as 48.9% of pregnant women in Indonesia suffer from anemia or lack of blood (Riskesdas, 2014). Based on the results of data from the Basic Health Research (Riskesdes) in 2018, the proportion of pregnant women who experienced anemia increased, compared to the results in 2013 which was 37.1%. From the data in 2018, the highest number of pregnant women who experienced anemia was at the age of 15-24 years at 84.6%, aged 25-34 years at 33.7%, 35-44 years old at 33.6%, and age 45 -54 by 24%. In addition, for women of childbearing age who were not pregnant, 20.8% in 2013 decreased to 14.5% in 2018. The prevalence of anemia and the risk of chronic energy deficiency in women in the suburbs greatly affects the condition of their children when they rise (Ministry of Health, 2014).

**Methods:** This study used non-probability sampling with sampling using total sampling. Data collection Using interview techniques and checklists. The data analysis used was univariate analysis with presentation and bivariate analysis with Chi-Square test.

**Conclusion:** The conclusion in this study obtained significant results between the knowledge of pregnant women with anemia and compliance with consuming Fe tablets at the Rimenda Br. Tarigan Clinic, Medan Denai District in 2019.

**Keywords:** Knowledge, Compliance, Fe Tablets

### Background

Anemia is one of the indirect causes of death for pregnant women. The maternal mortality rate (MMR) in Indonesia is the highest compared to other ASEAN countries. Women who died due to complications during pregnancy and childbirth experienced a decrease in 2015 by 289,000 people. The target of reducing maternal mortality is by 75% between 1990 and 2015 (WHO, 2016).

One of the components of health care for pregnant women is the provision of iron as much as 90 tablets (Fe). Iron is a mineral the body needs to form red blood cells (hemoglobin). During pregnancy, iron intake must be increased considering that during pregnancy, the volume of blood in the mother's body increases. So, to be able to continue to meet the needs of the mother and oxygen to the fetus through the placenta, more iron intake is needed (Kemenkes RI, 2015).

The noncompliance of pregnant women taking Fe tablets can reflect how big the chances of getting anemia are. Providing information about anemia will increase their knowledge about anemia, because knowledge plays a very important role so that pregnant women can adhere to taking Fe tablets.

One of the efforts made to reduce the prevalence of anemia is by giving 90 tablets of Fe tablets during pregnancy. The percentage of coverage of pregnant women who received 90 iron tablets in North Sumatra in 2016 amounted to 73.31%, this decreased compared to 2015 which was 80.13% or there was a decrease of 6.82%. With the coverage presentation, the coverage of iron tablets during pregnancy has not been able to reach the national target set at 80% (Health Profile of North Sumatra, 2016).

In consuming iron tablets at the Private Practice Midwife Cut Maryamah

Triggadeng in 2012 (Safarina, 2012) that there is a relationship between mothers who do not consume Fe tablets or do not comply with or consume Fe tablets which increase the risk of developing health problems or prolonging and worsening the pain suffered, and pregnant women who adhere to consuming iron (Fe tablets) can prevent anemia in pregnancy.

Based on a preliminary survey conducted at the Rimenda Br. Tarigan clinic there were 10 women who had anemia, of the 10 pregnant women, there were 3 people who had sufficient knowledge about anemia and the importance of consuming Fe tablets, and 7 people who lacked knowledge and did not know its importance. consuming Fe tablets, so from here I am interested in taking the title "The Relationship between Pregnant Women Knowledge About Mild Anemia and compliance in consuming Fe tablets at the Clinic Rimenda Br.Tarigan".

### Methods

The research design is an analytic survey with a cross sectional approach which is a study of the relationship between two variables in a situation or a group of subjects conducted to see the relationship between other variables (Notoadmodjo, 2010). which aims to determine the relationship between the knowledge of anemia pregnant women with the necessity of consuming Fe tablets at the Rimenda Br Tarigan Clinic, Medan Denai District, Medan City.

The population in this study were all pregnant women who had mild anemia, and pregnant women who had mild anemia, while the population obtained was 35 people. This study uses non-probability sampling with sampling using total sampling. The total sampling technique, namely sampling was carried out by taking all respondents of pregnant women who had anemia and who had experienced anemia in March-June 2019. Bivariate analysis was carried out on 2 (two) variables to determine the relationship of 2 (two)

variables. The analysis technique used is the chi square test.

### Result

Table 4.1 Distribution of Characteristics of Respondents at the Rimenda Br. Tarigan

No	Variabel	Total	Percentage(%)
<b>Age</b>			
1	<20	12	34,28
2	20-35	15	42,86
3	35>	8	22,86
<b>Total</b>		<b>35</b>	<b>100%</b>
<b>Education</b>			
1	Primary school	16	45,71
2	Junior high school	6	17,14
3	High school	7	20
4	College	6	17,14
<b>Total</b>		<b>35</b>	<b>100%</b>
<b>Profession</b>			
1	Work	15	42,86
2	Freelance	20	57,14
<b>Total</b>		<b>35</b>	<b>100%</b>

In Table 4.1, it can be seen that the age of respondents 20-35 years old is 42.86%, age <20 years is 34.28% and age is at least 35> years old at 22.86%. Furthermore, based on the level of education, it is known that the primary education level dominates in this study which is 45.71%, the high school education level is 20% and the lowest education level is SMP and PT at 17.14%.

Furthermore, based on work, it is known that respondents who do not work dominate in this study, namely by 57.14% and respondents who do not work by 20%.

Table 4.2 Distribution of Respondents based on compliance with consuming Fe Tablets at the Rimenda Br. Tarigan

Obey	Total	Percentage(%)
Obey	13	37,14
Not obey	22	62,86
<b>Total</b>	<b>35</b>	<b>100%</b>

Based on Table 4.2, it can be seen that the number of respondents who consumed

Fe tablets was 37.14% and respondents who were not compliant in consuming Fe tablets were 62.86%.

Table 4.3 Distribution of Respondents Based on Mother's Knowledge About Anemia at the Rimenda Br. Tarigan

Knowlegde	Total	Percentage(%)
Good	8	35,3
Enough	12	34,28
Less	15	42,86
<b>Total</b>	<b>35</b>	<b>100</b>

Based on Table 4.3, it can be seen that the characteristics of respondents are based on the mother's knowledge of anemia. It is known that respondents who have less knowledge are the most dominant at 42.86%, 34.27% have sufficient knowledge and those who have good knowledge are 35.3%.

Table 4.4 Distribution of Cross Frequency Based on Knowledge of Pregnant Women with Compliance in Consuming Fe tablets at the Clinic Rimenda Br. Tarigan

No	Knowlegde	Compliance with Fe Tablet Consumption				Chi-Square		
		Not obey		Obey				
		F	%	F	%			
1.	Good	0	0	8	22,86	8	22,86	0,000
2.	Enough	7	20	5	14,28	12	34,28	
3.	Less	15	42,86	0	0	15	42,86	
Total		22	62,86	19	54,29	35	100	

Based on table 4.4, Respondents' knowledge in knowing more Fe tablets is less knowledge, namely 15 (42.85%) higher than Sufficient knowledge 7 (20%). From the Chi-square results obtained p value = 0.000, there is a relationship between knowledge of pregnant women who have anemia with compliance with consuming Fe tablets.

### Discussion

From the research conducted, it can be seen that there were 12 respondents aged <20 years (34.28%), 20-35 years old there were 15 respondents (42.86%) and those aged >25 years there were 18 respondents (22.86 %). According to Soekanto (2000) in Utami's research, Wahyu Tri and Dwi Anita

Apriastuti (2013) that 20-40 years of age have a mature emotional status so that their ability to capture and process information is quite good, this can be seen from knowledge (good and sufficient) of the respondents about the benefits of Fe tablet was quite high, namely 72.54%.

Based on the test results in Table 4.4, it is known that there is a relationship between the knowledge of pregnant women about anemia and compliance in consuming Fe tablets, namely with a value of 0.000 < 0.05, so that the hypothesis in this study is accepted. The results of this study are in line with research conducted by (Manoe, 2010) which states that there is a relationship between maternal knowledge about anemia and maternal compliance in consuming Fe tablets in the work area of the Alalak Tengah Community Health Center, Banjarmasin City.

Then based on research (Erwin, Machmud, & Utama, 2013) it was found that there was a relationship between knowledge and compliance of mothers in consuming Fe tablets. The results of this study are in line with research conducted by (Ramawati, 2008) which shows that knowledge is one of the factors related to the compliance of pregnant women in consuming Fe tablets.

Then based on research (Putri W. D, 2017) which shows that knowledge is one of the factors related to the compliance of pregnant women in consuming Fe tablets. Furthermore, based on research (Ichsan, Burhannudin, 2012) said that the knowledge possessed by pregnant women about health in pregnancy can help in caring for the health of pregnant women themselves and their contents properly and accordingly, including in terms of choosing the type of food consumed during pregnancy so that it can have a negative impact. in mothers and babies, this means that there is a relationship between mothers and their adherence to consuming Fe tablets.

According to (Sugeng Triyani, 2016) the factor that affects compliance is lack of knowledge, and explains that there is a

relationship between the knowledge of pregnant women about anemia and adherence to consuming Fe tablets at Karangdowo Klaten health center which explains that there is a relationship between compliance with consuming Fe tablets and knowledge of pregnant women with anemia.

The impact of anemia in pregnancy is that miscarriage can occur. The impact of anemia in childbirth is premature birth, uterine inertia, uterine atony, prolonged labor, atonic bleeding and birth with LBW (Low Birth Weight) with a weak baby.

### Conclusion

Based on the results of research on the Knowledge Relationship of pregnant women who have anemia with adherence to consuming Fe tablets at the Rimenda Br. Tarigan Clinic, Medan Denai District in 2019, it can be concluded as follows:

1. Based on the characteristics of the respondents, amounting to 35 respondents, it is known that the age of the respondents 20-35 years old dominates, namely by 42.86% . The level of education, it is known that the primary education level dominates in this study, which is 45.71%. Furthermore, based on work, it is known that respondents who do not work dominate in this study, namely 57.14%.
2. From the 35 respondents who were compliant with consuming iron tablets, 13 were obedient (37.14%).
3. From the research results, of the 35 respondents who had less knowledge, 15 respondents (42.86%).
4. There is a correlation between Knowledge of Anemic Pregnant Women and Compliance with consuming Fe tablets at the clinic Rimenda Br. Tarigan, Kec. Medan Denai in 2019.

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## THE EFFECTIVENESS OF PRENATAL YOGA AND PREGNANT YOGA ON THE REDUCTION OF PHYSICAL COMPLAINTS IN PREGNANT WOMEN IN PERA CLINIC, MEDAN CITY

Riska Susanti Pasaribu<sup>1</sup>, Tetti Seriati Situmorang<sup>2</sup>, Imarina Tarigan<sup>3</sup>

<sup>1,3</sup> Prodi Kebidanan Program Diploma Tiga Kebidanan STIKes Mitra Husada Medan

<sup>2</sup> Prodi Kebidanan Program Sarjana Kebidanan STIKes Mitra Husada Medan  
[riskasusantinataliap@gmail.com](mailto:riskasusantinataliap@gmail.com)

### ABSTRACT

#### Background

Pregnancy is a normal, natural process that begins with intrauterine fetal growth and development and from conception to delivery. During pregnancy, pregnant women experience physical and psychological changes that can cause discomfort such as dyspnea, insomnia, gingivitis and epulsion, frequent urination, pressure and discomfort in the perineum, back pain, constipation, varicose veins, fatigue, Braxton hicks contractions, leg cramps, ankle edema and mood swings and increased anxiety.

#### Objective

The purpose of this study was to gain more knowledge and understand the implementation of the effectiveness of prenatal yoga and pregnancy exercise in reducing physical complaints and in pregnant women.

#### Methods

This research is a quasi experimental research and the design used is a pre-test post-test research design with a control group design, the sampling technique is total sampling, the number of samples is 30 people, where the control group is 15 people and the intervention group is 15 people.

#### Result

The paired t test on the effectiveness of prenatal yoga and pregnancy exercise in reducing physical complaints before and after it was given was respectively  $p = 0.001$ , meaning  $p < 0.05$ , prenatal yoga was effective and pregnancy exercise was effective in reducing physical complaints in pregnant women.

#### Conclusion

The effectiveness of prenatal yoga and pregnancy exercise in reducing physical complaints was  $p = 0.001$ , where the p value was  $< 0.005$ , where prenatal yoga and pregnancy exercise were very effective in reducing physical complaints in pregnant women.

**Keywords:** Prenatal Yoga, Pregnant Exercise, Physical Complaints

#### Preliminary

Pregnancy is a normal, natural process that begins with intrauterine fetal growth and development and from conception to delivery. In women's life, there is a phase of pregnancy which is a time of great change. These changes are not only associated with physical changes, but also biochemical changes, physiological, even psychological which is a consequence of the growth of the fetus in the uterus. Discomfort during pregnancy mild complaints found in

pregnancy such as dependent edema, nocturia, constipation, shortness of breath, heartburn, leg cramps and low back pain. During this period, pregnant women are vulnerable to all kinds of "stress", which results in changes in physiological and metabolic functions.

Physical complaint of pregnant women is a condition that is prone to all kinds of "stress", which results in changes in physiological and metabolic functions. Discomfort during pregnancy mild



complaints found in pregnancy such as dependent edema, nocturia, constipation, shortness of breath, heartburn, leg cramps and low back pain.

As the uterus enlarges and weight gain in the third trimester of pregnancy, the center of gravity moves forward so that the pregnant woman has to adjust its stance. Improper body changes will force additional stretching and fatigue on the body, especially in the back. About 50% - 72% of women when pregnant experience low back pain, the pain will increase with gestational age. Pregnant women complain of lower back pain. Therefore, the disruption of daily physical activities such as climbing stairs (47%), walking (40%), working hard (28%), participating in exercise (30%), disturbing sleep quality (58%), 10% of all mothers. pregnant women who complain of low back pain are forced to take time off from work.

Physical complaints of pregnant women in Medan City also show that 63% of pregnant women have poor sleep quality due to physiological and psychological changes experienced by mothers during pregnancy. The results of a preliminary study conducted in prenatal yoga (yoga during pregnancy) is a modification of hatha yoga that is adapted to the condition of pregnant women. The goal of prenatal yoga is to prepare pregnant women physically, mentally and spiritually for childbirth. With careful preparation, the mother will be more confident and gain confidence in going through labor smoothly and comfortably.

## Method

**Research method** This research is a quasi experimental research and the design used is a pre-test and post-test research design with control group design, which is a research design to analyze the effectiveness of prenatal yoga and pregnancy exercise in reducing physical complaints between the intervention and control groups. In the case group, prenatal yoga interventions were given, while the control group was given pregnancy exercise intervention, both groups were given

intervention every week 2 times a week for 6 months. So researchers will control the provision of interventions and observe physical complaints and maternal readiness for childbirth. Data processing was carried out using paired t test and comparison test, namely independent t test.

Where the research was conducted at the Pera clinic on Jl. Bunga Rampai II No. 77 Simalingkar B. The samples in the study were all pregnant women who visited Pera clinic and met the inclusion criteria. The sample in this study was total sampling, namely all pregnant women aged 20 - 35 weeks who visited the Pera clinic as many as 30 people (total population) which were then divided into 15 control groups and 15 intervention groups. The sample in this study were pregnant women who had physical complaints and were not sick or under medication.

## Result

### 1. Characteristics of Research Subjects Based on age, education, occupation and number of pregnancies

No	Characteristics	Groups	
		Intervensi n=15 N (%)	Control n=15 N (%)
1.	Age		
	a. <20	2 (13,3)	1 ( 6,7)
	b. >20-25	5 (33,3)	6 (40,0)
	c. >25-30	6 (40,0)	5 (33,3)
	d. >30-35	2 (13,4)	3 (20,0)
2.	Education		
	a. Primary school	4 (26,7)	1 (6,7)
	b. Junior high school	1 ( 6,7)	1 (6,7)
	c. Hight school	8 (53,3)	11(73,3)
	d. Bachelor	2 (13,3)	2 (13,3)

Table: 1. Based on age > 25-30 years there were 11 people, based on high school education there were 19 people, in the control and intervention groups.

2. The effectiveness of prenatal yoga in reducing physical complaints before and after treatment for pregnant women

<b>Physical complaints</b>	Mean	SD	Value P
Pre-test	27,300	17,364	0,001
Post-test			

Table: 2. It is the result of the effect of prenatal yoga in reducing physical complaints before and after being given prenatal yoga in the control group and the paired sample t-test is carried out. The results for physical complaints of pregnant women value  $p = 0.001$ , meaning  $p < 0.05$ , states there is an effect of prenatal yoga in reducing physical complaints of preparation for delivery of pregnant women.

3. The effectiveness of pregnancy exercise in reducing physical complaints before and after treatment given to pregnant women

<b>Physical complaints</b>	Mean	SD	Value P
Pre-test	25,633	15,806	0,001
Post-test			

Table: 3. Is the result of the effect of pregnancy exercise in reducing physical complaints before and after being given pregnancy exercise in the intervention group and the paired sample t-test was carried out. The results were obtained for the reduction of physical complaints, the value of  $p = 0.001$  means that  $p < 0.05$ , states that there is an effect Prenatal yoga in reducing physical complaints of preparation for delivery of pregnant women.

## Discussion

### 1. Characteristics of Research Subjects

In this study, physical complaints of preparation for delivery in pregnant women in the control and intervention groups were influenced by factors such as age, education, occupation and number of pregnancies. Theoretically, pregnant women

do have physical complaints during pregnancy that vary based on age, education, occupation, and number of pregnancies. Physical complaints are also greatly influenced by various factors, both internal and external, therefore every pregnant woman will have different complaints depending on these factors.

2. The effectiveness of prenatal yoga in reducing physical complaints before and after treatment for pregnant women

In the results of this study, the control group that was given prenatal yoga treatment showed the results to reduce physical complaints during labor preparation with a value  $p = 0.001$ , meaning that  $p < 0.05$ , stated that there was an effectiveness of prenatal yoga in reducing physical complaints of preparation for labor in pregnant women.

Research on prenatal yoga conducted by Rafika (2018) found that pregnant women who were given prenatal yoga treatment experienced a reduction in physical complaints in pregnant women compared to those who were not given prenatal yoga. This is because the body is stretched more relaxed, so that blood circulation works properly and the body produces endorphin hormones.

According to Widiastini (2016) that endorphins are natural hormones produced by the human body, so endorphins are the best pain relievers. Endorphins can be produced naturally by doing activities such as meditation, deep breathing, eating spicy foods, or through acupuncture treatments or chiropractic.

The results of this study are also in accordance with Sindhu's (2014) theory, that practicing yoga during pregnancy is a useful solution as a self-help medium that will reduce discomfort during pregnancy, assist in childbirth, and even prepare mentally for the early days. after childbirth and while raising children. Pregnant women who exercise regularly report lower levels of discomfort during pregnancy and healing faster than those who don't exercise during pregnancy.

The Effectiveness of Pregnant Exercise in Reducing Prior Physical Complaints The results of the study in the intervention group that were given pregnant exercise treatment showed that the results were to reduce physical complaints of preparation for delivery in pregnant women with a value of  $p = 0.001$  meaning  $p < 0.05$ , stating that there is pregnancy exercise which is effective in reducing physical complaints in pregnant women. The results of the study are in accordance with the results of research conducted by Pudji Suryani, Ina Handayani (2017), that pregnancy exercise has a significant effect in reducing the discomfort felt by pregnant women. The analysis results obtained a significance value of 0.025 ( $p < 0.05$ ) for complaints of swelling,  $p$  value 0.03 ( $p < 0.05$ ) for complaints of low back pain,  $p$  value = 0.003 ( $p < 0.005$ ) for complaints of back pain,  $p = 0.003$  ( $p < 0.005$ ).

The results of this study are in accordance with research conducted by Elok Sari Dewi, et al (2016) that prenatal yoga and pregnancy exercise have a significant effect on reducing physical complaints and preparation for delivery in pregnant women. Based on the results of research by Rusmita (2011), yoga pregnancy exercise can increase physical readiness in the face of childbirth by 60.8%. Meanwhile, in Putri's research (2013). According to research by Widyawati & Syahrul (2013), mothers who do pregnancy exercise experience delivery 1.80 times faster than pregnant women who do not exercise (Widyawati & Syahrul, 2013).

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## THE EFFECT OF BACK MASSAGE WITH SMOOTH DELIVERY OF PUERPERIAL BREAST MILK IN THE WORK AREA OF MEDAN GLUGUR HEALTH CENTER 2019

Rahel Friscilla Marbun<sup>1</sup> Lisa Putri Utami Damanik<sup>2</sup>, Lasria Simamora<sup>3</sup>

[Rahelmarbun57@gmail.com](mailto:Rahelmarbun57@gmail.com)  
STIKes Mitra Husada Medan

### Abstract

Back massage / oxytocin is a massage of the cervical spine, back or along the vertebrae (vertebrae) to the fifth to sixth rib. Oxytocin massage is an action taken by the husband to breastfeeding mothers in the form of back massage on the mother's back to help release the hormone oxytocin. Purpose: research to determine whether there is an effect of back massage with the smoothness of breast milk. Research method: Using Quasi-Experiment, Population: This research is the post-partum mothers in the working area of Puskesmas Glugur Darat Medan with a total of 88 people, and the sample is 32 people with purposive sampling technique. Dependent variable is Pungung massage, Independent variable is smoothness of breastfeeding. Data collection: observation sheets which were then processed using editing, coding scoring, tabulating and using the Wilcoxon Signed Rank Test statistical test. The results of this study indicate that there was a change in the number of respondents before doing and after back massage in the intervention group. Not smooth as many as 14 respondents (88%), after back massage was carried out smoothly as many as 14 respondents (88%). The results of this study were confirmed by the Wilcoxon test results obtained p value 0.000. P value = (0,000)  $\alpha < 0.05$ , which means there is an effect of back massage on the smoothness of breastfeeding.

**Keywords:** Back massage, Smoothness of breast milk

### Premiliary

Breast milk is the main and most perfect food for babies. Where ASI contains almost all nutrients with a position according to the baby's needs to grow and develop optimally (Saymsul Alam, 2016). Exclusive Breastfeeding is the provision of breast milk to babies aged 0-6 months without being given additional food or drinks other than drugs for therapy (treatment of diseases). The percentage coverage of Exclusive Breastfeeding in North Sumatra Province in 2016 had a sharp decline compared to 2015 and did not reach the National target of <40%. District / City With the achievement of > 40%, namely Labuhan batu Utara (97.90%), Samosir (94.8%), Humbang sedition (84.0%), Simalungun (60.6%), Dairi (55.7%) ) pak pak barat (50.5%), Deli Serdang (47.1%), Asahan (43.6%), Labuhan Batu (40.9%), Gunung sitoli (84.5%), Sibolga (46, 7%).

Areas with an achievement of <10% are Medan City (6.7%), high cliffs (7.4%) (District / City Health Profile, 2011-2016). Back massage is a back massage that starts from the lower part of the neck, Kostae 5-6 to the scapula along the side of the spine in a circular manner with pressure using both thumbs which can provide somatic sensory simulation through afferent pathways so as to stimulate the posterior pituitary to release the hormone oxytocin. which is a hormone that plays a role in breastfeeding (Dewi, 2017). According to the research (Mariatul Kiftia, 2014) with the title "The Effect of Oxytocin Massage on Breast Milk Production in Post Partum Mothers" states that the results of the Research Hypothesis P value 0.001 < 0.05 which indicates a significant difference in the average value before and after massage therapy. oxytocin, it can be concluded that oxytocin massage therapy is effective for postpartum mothers.

**Method**

The research design used in this study was the Quazi Experiment (Quasi-Experiment). Quasi-Experiment Research with pre-test and post-test control approaches. The design group aims to determine whether there is an effect of back massage on the smoothness of breastfeeding (Lestari, 2017).

In this study, there were 2 groups consisting of an intervention group that received back massage treatment and a control group that was not given treatment, still observing it. The subjects of this study were postpartum mothers who were taken from April-May 2019 in the working area of the Glugur Darat Medan Health Center, the sample that the researchers used was "purposive sampling" with a non-random method, namely the sampling technique by selecting samples among the population according to what the researcher wanted. (Inclusion criteria) then obtained a sample of 32 people. Data collection was carried out by researchers directly using observation sheets and Standard Operating Procedures (SOP). The data obtained were analyzed using the Chi Square test with the SPSS program.

**Result**

**Table 4.1 Frequency Distribution Based on Characteristics of Respondents in the Work Area of Puskesmas Glugur Darat Medan**

No	Characteristic	Group				Total
		Eksperimen		Control		
		F	(%)	F	(%)	
1	Age					
	a. <20 years	5	31%	1	6%	6
	b. 20-35 years	10	63%	13	81%	23
	c. >35 years	1	6%	2	13%	3
	Total	16	100%	16	100%	32
2	Frequenci Breastfeeding					
	a. >8 kali	4	25%	3	18,75%	7
	b. <8 kali	12	75%	13	81,25%	25
	Total	16	100%	16	100%	32

From table 4.1 it can be seen that Of the 16 respondents in the experimental

group mostly aged 20-35 years, as many as 10 respondents (63%). Most of the control group were also aged 20-35 years, as many as 13 respondents (81%). 16 Respondents in the Experiment Group breastfeeding frequency <8 times as many as 12 respondents (75%), in the control group also showed the results of breastfeeding frequency <8 times a day as many as 13 respondents (81.25%).

**Table 4.2 Smoothness of breastfeeding for postpartum mothers before back massage in the intervention group and control group in the Work Area of the Glugur Darat Health Center, Medan**

No	Smoothness of Breastfeeding	Group Intervension		Group Control	
		F	(%)	F	(%)
1	Smooth	2	12%	5	31%
2	Not Smooth	14	88%	11	69%
	Total	16	100%	16	100%

From the table it can be seen that Most of the respondents in the intervention group before being given oxytocin massage smooth breastfeeding were 13 respondents (81%), Most of the respondents in the control group before being given oxytocin massage the smoothness of non-current breastfeeding were 11 respondents (69%).

**Table 4.3 Smoothness of breastfeeding for postpartum mothers after back massage in the intervention group and control group in the Work Area of the Glugur Darat Health Center, Medan**

No	Smoothnes of Breastfeeding	Group Intervension		Group Control	
		F	(%)	F	(%)
1	Smooth	14	88%	6	37%
2	Not smooth	2	12%	10	63%
	Total	16	100%	16	100%

From the table shows that most of the respondents in the intervention group after being given oxytocin massage to smooth breastfeeding were 14 respondents (88%). Most of the respondents in the control group after being given oxytocin massage the smoothness of breastfeeding were 10 respondents (63%).

**Table 4.4 Normality of the distribution of treatment groups and control groups in the working area of the Glugur Darat Health Center, Medan**

		Tests of Normality		
		pijat	Shapiro-Wilk	
		punggung	Statistic	Df Sig.
Pengaruh	Pre Test			
	Intervensi	.839	16	.009
	Post Test			
	Intervensi	.819	16	.005
Pengaruh	Pre Test			
	Kontrol	.842	16	.010
	Post Test			
	Kontrol	.854	16	.016

From the table 4.4 The results of the Normality Test using the Shapiro Wilk Test obtained a significant value of the pre-test intervention group of 0.009 and 0.005 of the post test, while the control group obtained a significant value of 0.010 pretest post test 0.016. Because the significant value of the two groups  $<0.05$ , it can be said that the Intervention group and the Control group were not normally distributed.

Computerized bivariate analysis was performed using the Wilcoxon Test to compare two groups from two different samples. In principle, we want to know whether there is a difference between 2 samples, by comparing the significance level of  $\alpha = 0.05$ . If the p value  $<0.05$  means that there is a significant influence between the independent and dependent variables

**Table 4.5 Differences in the fluency of breastfeeding in the intervention group and the control group in the working area of Puskesmas Glugur Darat Medan**

No	Smooth of Breastfeeding Group	N	p Value
1	Intervention	16	0,000
2	Control	16	

From the table 4.5 It can be seen that the statistical test using the Wilcoxon test showed that the p value of the intervention

group was 0,000 where  $<0.05$  means that there is an effect of Back Massage with the smoothness of breastfeeding. It can be concluded that the back massage that is carried out greatly affects the smoothness of breastfeeding for postpartum mothers in the working area of the Glugur Darat Health Center, Medan.

### Discussion

The control group were 11 respondents (69%), supported by The results of the study before back massage were most of the respondents that the breast milk was not smooth and could not pass through the mother's nipples because the mother rarely breastfed her baby and the child's suction was reduced, thus reducing breastfeeding. Smoothness of breastfeeding in post-partum mothers after back massage in the intervention and control groups based on research conducted in the working area of the Glugur Darat Health Center in Medan, it was found that most of the respondents to the smoothness of current breastfeeding were 14 respondents (88%). Whereas in the Control group who did not do back massage there was no increase in fluency in breastfeeding where the respondents were breastfeeding fluently as much as 6% of respondents (37%). The result support by Theory According to (Susilo, 2016) Oxytocin massage is one solution to overcome the inadequacy of breastfeeding. Back massage / oxytocin is a massage of the cervical spine, back or along the vertebrae (vertebrae) to the fifth to sixth rib rib. Oxytocin massage is an action taken by the husband to breastfeeding mothers in the form of back massage on the mother's back to help release the hormone oxytocin.

Based on Tables 4.2 and 4.3, it shows that there was a change in the number of respondents before it was done and after back massage was done in the intervention group. Not smooth as many as 14 respondents (88%), after back massage was done, there were 14 respondents (88%). The results of this study were confirmed by the Wilcoxon test results obtained p value

0.000. The p value  $<0.05$ , which means there is an effect of back massage on the smoothness of breastfeeding. Based on the fluency of breastfeeding before and after back massage, it is known that prior to back massage, the excretion of breastmilk was not smooth, while after back massage, most of the respondents were expressing breastmilk smoothly. So it can be concluded that there is an effect of back massage on the smoothness of breastfeeding in the Work Area of the Glugur Darat Health Center in Medan, with these results supported by Research (Mariatul Kiftia, 2014) with the title "The Effect of Oxytocin Massage on Breast Milk Production in Post Partum Mothers" states that the results of the Research Hypothesis P value  $0.001 < 0.05$  which indicates a significant difference in the average value before and after oxytocin massage therapy, it can be concluded that oxytocin massage therapy is effective for postpartum mothers.

### Conclusion

1. Post-partum mothers in the work area of the Puskesmas Glugur Darat Medan, 14 respondents (88%) had more fluency in their breastmilk 2 respondents (12%).
2. Postpartum mothers in the work area of the Puskesmas Glugur Darat Medan have more fluency in breast milk is not fluent in the control group. Breastfeeding is not smooth as many as 11 respondents (69%) of the fluent 5 respondents (31%).
3. There is an effect of back massage on the fluency of mother's milk in the working area of Puskesmas Glugur Darat Medan, where the p value (0.001) value  $\alpha < 0.05$ . It is hoped that health workers can provide counseling or counseling in order to increase the knowledge of postpartum mothers about the importance of back massage so that it can improve the fluency of breastfeeding and provide a feeling of relaxation to the mother. It is hoped that further researchers can continue this research with different variables.

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STIKes Mitra Husada Medan



## THE INFLUENCE OF BABY MASSAGE ON BABY SLEEP QUALITY IN 3-4 MONTHS IN BPM PERA SIMALINGKAR B MEDAN IN 2018

Endang Suyatni S<sup>1</sup>, Juliana Munthe<sup>2</sup>, Widia Sarah<sup>3</sup>

[wiyawidiasarah@gmail.com](mailto:wiyawidiasarah@gmail.com)  
STIKes Mitra Husada Medan

### ABSTRACT

Baby massage is a fun way to relieve tension and feelings of anxiety, especially in babies, gentle massage will help relax the muscles so that the baby becomes calm and sleeps soundly. Data from BPM PERA Simalingkar B in 2018, out of 30 babies, 22 babies reported having trouble sleeping so they experienced quality sleep.

The research objective was to determine the effect of infant massage on sleep quality for infants aged 3-4 months at BPM PERA Simalingkar B Medan in 2018. This type of research is a quasi experiment with one group pre test and post test design carried out in May and August 2018. There were 30 mothers of babies aged 3-4 months who visited and all of them were used as research samples. Collection using a questionnaire and analyzed using the Wilcoxon test at the limit of significance  $\alpha = 0.05$ .

The results showed that the quality of sleep for babies aged 3-4 months before the baby massage was good, namely 17 people (56.7%) and the rest, the quality of sleep was poor, namely 13 people (43.3%) and after the baby massage the quality of sleep was good to 24 people (80%) and the rest had poor sleep quality, namely 6 people (20%). There is an effect of massage for babies aged 0-6 months on the quality of sleep for babies before and after massage (p value 0.017 < 0.05).

It is recommended that the clinic leadership provide health education about baby massage to new mothers or mothers of babies who come to visit about baby massage and suggest doing massage so that the baby has good quality sleep. Health workers can provide brochures and leaflets about the correct technique and method of infant massage as a source of health information.

**Keywords:** Massage Babies 3-4 Months, Sleep Quality

### Introduction

Infancy is a golden age as well as a critical period for one's development. It is called a critical period because at this time the baby is very sensitive to the environment and it is said to be the golden age because the baby's period is very short and cannot be repeated. In Indonesia, there are quite a lot of babies who have trouble sleeping, which is around 44.2% of babies who experience sleep problems such as waking up frequently at night. However, more than 72% of parents consider sleep disturbance in infants not a problem or only a minor problem (Ministry of Health, 2009).

Babies are weak individuals and need a process of adaptation. Babies must be able to make 4 adjustments in order to stay alive,

namely adjusting for temperature changes, sucking and swallowing, breathing and removing waste. The developmental age of infants is divided into 2, namely, neonates from birth to 28 days of age and babies from 29 days to 12 months (WHO, 2013). Meanwhile, according to Rusli (2013) babies are children aged 0 to 12 months.

Infant Mortality Rate (IMR) in ASEAN, WHO estimates the total IMR is around 170,000 per 1000 live births. 90% of this figure occurs in Indonesia, Bangladesh, Nepal and Myanmar. The Infant Mortality Rate (IMR) in 2015 was 22.23 per 1,000 live births, which means that it has reached the 2015 Millennium Development Goals (MDGs) target of 23 per 1,000 live births (Indonesia Health Profile, 2015).

The Infant Mortality Rate (IMR) in North Sumatra in 2013 was 21.59 per 1,000 live births and in 2014 was 20.22 per 1,000 live births (Health Profile of North Sumatra, 2014).

Babies who experience sleep problems in Indonesia, about 44.2% of babies experience sleep disorders such as frequent waking at night. However, more than 72% of parents consider sleep disturbances in babies not a problem or just a minor problem, this was revealed by a study in 2004-2005 conducted in five major cities in Indonesia (Jakarta, Bandung, Medan, Palembang and Batam).

Baby massage is a fun way to relieve tension and feelings of anxiety, especially in babies, gentle massage will help relax the muscles so that the baby becomes calm and sleeps soundly. However, the facts show that there are still many mothers who are reluctant to massage their babies regularly, especially at the beginning of their birth, this is because of the fear of wrongly massaging their babies, the baby's body is still weak and doesn't know how to massage the correct technique (Roesli, 2011).

Currently, various therapies have been developed, both pharmacological and non-pharmacological. One of the non-pharmacological therapies to overcome baby sleep problems is baby massage. Baby massage is a slow and gentle rubbing motion on the baby's entire body starting from the baby's feet, stomach, chest, face, hands and back. Baby massage is a form of stimulation. Touch stimulation is the most important in development. touch sensation is the most developed sensory at birth (Hikmah, 2010).

The benefits of massage for baby's skin are obtained when it is done using oil. Application of oil helps stabilize the baby's temperature and prevents heat loss through the skin. This is generally more useful when used in premature babies who are prone to hypothermia (below normal body temperature). The use of oil is also proven to improve skin texture because it can remove dead skin cells and prevent skin

from becoming dry and cracked (IDAI, 2015).

Baby massage can relieve tension and feelings of restlessness, especially in babies. Babies around the age of 3-4 months need time to sleep approximately 18 hours per day and the remaining time for the baby is to play and do activities that make the baby comfortable, for example chatting with mother and family members. But other problems experienced by mothers are problems for babies who find it very difficult to sleep at night and if not handled seriously there are behavioral disorders, growth and development and brain disorders (Dewi, 2014).

The quality and quantity of baby sleep is influenced by several factors. This quality can indicate the individual's ability to sleep and get the amount of rest according to their needs, namely environment, physical exercise, nutrition and disease. Given the importance of sleep time for a baby's development, his sleep needs must be met so as not to adversely affect his development. One of the ways that can be used to meet these needs is by physical exercise or massage. Babies who are massaged will be able to sleep soundly, while when they wake up, their concentration will be fuller (Roesli, 2011).

Inadequate sleep and poor sleep quality can cause physiological and psychological balance disorders. The physiological effects include decreased daily activities, tiredness, weakness, poor neuromuscular coordination, slow healing process and decreased immune system. Meanwhile, the psychological impact includes more unstable emotions, anxiety, lack of concentration, lower cognitive abilities and combined experiences (Saputra, 2009).

The results of previous research by Indriatie (2009) at the Jiyu-Kutorejo Mojokerto Polindes, using a non-random re-experimental design model. The population was 52 babies aged 6-12 months. Sampling was quota sampling of 28 babies. The study was conducted from 13 July 2009 to 13

August 2009. The independent variable was infant massage, the dependent variable was the quality of the baby's sleep. Mostly, after the massage was done, the baby's sleep quality was sound, a number of 11 babies (78.5%). Meanwhile, babies who were not given massage mostly had poor sleep quality, a number of 10 babies (71.5%). After analyzing with the chi square test, it was found that there was an effect of infant massage on the quality of sleep for babies aged 6-12 months. A preliminary survey conducted by the author at BPM PERA Simalingkar B, obtained data from 30 babies, 22 babies reported having problems when sleeping. Complaints reported by mothers are different for each baby. There are those who report frequently waking up when sleeping at night, crying when they wake up and so on. Of the 30 mothers who brought their babies to BPM PERA, 20 people said they had heard about baby massage but did not know how to massage the right way, 10 people said they did not know about baby massage at all.

### Method

This research is a quasi experimental study with the aim of knowing the effect of

the independent variable (baby massage) on the dependent variable (baby sleep quality). According to Arikunto (2012), quasi-experimental design is research carried out without a comparison class or control class. The design used was a one group pre-test and post-test research design, which is a research design used by giving a pre-test and a final test to a single group research sample. The research design of one group pre test and post test design is described according to the concept of Arikunto (2012).

The research objective was to determine the effect of infant massage on sleep quality for infants aged 3-4 months at BPM PERA Simalingkar B Medan in 2018. This type of research is a quasi experiment with one group pre test and post test design carried out in May and August 2018. There were 30 mothers of babies aged 3-4 months who visited and all of them were used as research samples. Collection using a questionnaire and analyzed using the Wilcoxon test at the limit of significance  $\alpha = 0.05$ .

### Result

#### Sleep Quality for Babies 3-4 Months Old Before Baby Massage

Based on the results of data collection, the quality of sleep for babies aged 3-4 months before the baby massage is obtained as follows.

**Tabel 4.1 Sleep Quality Frequency Distribution Infants aged 3-4 months Before Doing Baby Massage (Pre Test) at BPM PERA Simalingkar B Year 2018**

No.	Pre Test	Amount (n)	Orecentage (%)
1.	No	13	43,3
2.	Yes	17	56,7
<b>Total</b>		<b>30</b>	<b>100,0</b>

Based on the table above, it shows that the sleep quality of babies who came to visit the BPM PERA Simalingkar B Clinic in 2018 before the intervention was good, namely 17 people (56.7%) and the rest poor sleep quality, namely 13 people (43.3%).

#### Sleep Quality for Babies 3-4 Months After Baby Massage

**Based on the results of data collection, the quality of sleep for babies aged 3-4 months after baby massage is obtained as follows.**

**Tabel 4.2** Frequency Distribution of Sleep Quality for Babies 3-4 Months After Baby Massage (Post Test) at BPM PERA Simalingkar B in 2018

No.	Post Test	Amount (n)	Percentage (%)
1.	No	6	20,0
2.	Yes	24	80,0
<b>Total</b>		<b>30</b>	<b>100,0</b>

Based on the table above, it shows that the quality of sleep for babies who come to visit the BPM PERA Simalingkar B Clinic in 2018 has been intervened by coming to the mother's house from babies aged 3-4 months experiencing an increase in good sleep quality, namely 24 people (80%) and the rest is quality poor sleep, namely 6 people (20%).

**Tabel 4.3** Distribution of Compliance of respondents in consuming Fe tablets at UPT Polonia Health Center in 2018

<i>One-Sample Kolmogorov-Smirnov Test</i>			
		Sleep Quality pre test	Sleep Quality post test
N		30	30
Normal Parameters <sup>a,b</sup>	Mean	4,43	4,93
	Std. Deviation	1,612	1,388
Most Extreme Differences	Absolute	,246	,219
	Positive	,246	,154
	Negative	-,201	-,219
Test Statistic		,246	,219
Asymp. Sig. (2-tailed)		,000 <sup>c</sup>	,001 <sup>c</sup>

Based on the table above, it can be seen that the Asymp. Sig. (2- tailed) the quality of sleep for babies aged 3-4 months before the baby massage (pre test) is 0,000 and after baby massage (post test) is 0,001. When compared to the Asymp value. Sig. (2-tailed) which is obtained with an  $\alpha$  value of 0.05 indicates smaller, so it can be said that the data is not normally distributed. Furthermore, the researcher determined the hypothesis test using the Wilcoxon Test mean difference test. The reason the researchers used the test was before and after the massage because in addition to the data not being normally distributed, it was also a paired sample.

To determine the effect of massage for infants aged 3-4 months on the quality of sleep for infants in BPM PERA Simalingkar B, researchers have used the

Wilcoxon test by comparing the average sleep quality for infants aged 3-4 months (pre test) with the average quality of sleep for infants aged 3-4 months. 3-4 months after the massage (post test) as follows.

### Discussion

The results showed that the quality of sleep for infants aged 3-4 months after infant massage had increased, namely the good quality of sleep was 24 people (80%) and the rest was poor sleep quality, namely 6 people (20%). Based on statistical values, it was obtained that the quality of sleep for babies before massage was carried out with a mean of 4.93 and a standard deviation of 1.388 at BPM PERA Simalingkar B Medan in 2018.

In accordance with the research of Minarti (2012) that most respondents

experienced an increase in sleep quality after being given infant massage interventions, namely 21 respondents (70%), while 9 respondents (30%) did not experience an increase in sleep quality after being given infant massage interventions at Puskesmas II Denpasar Timur .

The habit of drinking milk before bed will also affect the quality of sleep because milk contains alpha protein which can increase tryptophan levels, tryptophan is a precursor of the hormones melatonin and serotonin which act as a neural link (neurotransmitter) and a habit regulator (neurobehavioral) which affects the pattern of consciousness. so that the baby will wake up more often at night. In this study the habit of drinking milk before (Dewi, 2014).

In this study, explain that babies aged 3-4 months who are given massage certainly have good quality sleep, but must be supported by a comfortable environment. The findings in the field are that there are babies who experience decreased quality of sleep due to uncomfortable environmental factors such as whispers during the day, thirst because they are late in providing breast milk or formula milk on the day.

The results of the study also showed that infants aged 3-4 months after the baby massage did not but there was no improvement in sleep quality, namely 6 people. This may be due to babies aged 3-4 months experiencing sleep disturbances such as noise, noise and hunger. Different ages of babies affect how many or at least babies consume drinks (ASI) every day.

### Conclusion

Based on the results of research and discussion, the authors conclude:

1. The quality of sleep for babies aged 3-4 months before the baby massage was good, namely 17 people (56.7%) and the rest was poor sleep quality, namely 13 people (43.3%).
2. The quality of sleep for infants aged 3-4 months after 5 days of infant massage, experienced an increase in good sleep quality to 24 people

(80%) and the rest was poor sleep quality, namely 6 people (20%).

3. There is an effect of massage for babies aged 3-4 months on the quality of sleep for babies at BPM PERA Simalingkar B before and after massage with a p value of  $0.017 < 0.05$ .

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## DESCRIPTION OF POST-MOTHER KNOWLEDGE OF BREAST CARE IN KB VILLAGE PADANG BULAN KECAMATAN MEDAN BARU IN 2020

**Mastaida Tambun**

### ABSTRACT

The puerperium is a period starting a few hours after the birth of the placenta until 6 weeks after delivery. Breast care is maintenance that is carried out routinely to avoid swelling due to milk dams. According to WHO, the maternal mortality rate (AKI) is 81% due to complications during pregnancy and childbirth, and during the puerperium. This study aims to determine the knowledge of postpartum mothers about breast care in postpartum mothers. This research is descriptive in which the sample taken is 30 respondents which is the number of pollulations using total sampling, that is the entire population is the research sample. From the research it can be seen that the knowledge of postpartum mothers about breast care based on the age of the majority is less knowledgeable at age <25 years which is 12 people (40%), based on education lacking knowledge in elementary school which is 9 people (30%), based on work knowledge less on IRT namely 13 people (43.3%), based on lack of knowledge parity in primipara namely 12 people (40%). It can be concluded that the knowledge of postpartum mothers about breast care is categorized as less, therefore it is expected for postpartum mothers to pay more attention and increase knowledge about breast care so that earlier they can overcome breast problems.

**Keywords: Knowledge, Postpartum Mother, Breast Care**

### INTRODUCTION

WHO, as many as 99% of maternal deaths due to childbirth or birth problems occur in developing countries is the highest with 450 maternal deaths per 100,000 live births when compared to the ratio of maternal deaths in nine developed countries and 51 commonwealth countries. According to WHO, the maternal mortality rate (AKI) is 81% due to complications during pregnancy and childbirth, and during the puerperium (Riskesdas, 2017).

Maternal Mortality Rate (MMR) in Indonesia is still high compared to countries in Asia such as Thailand with MMR 130 / 100,000 live births (KH). Based on a report from the 2017 Indonesian Demographic and Health Survey (IDHS), more than 25 years a third of women in the world (38%) can not breastfeed their babies due to breast swelling. Whereas the 2011-2015 IDHS shows that 55% of breastfeeding mothers experience mastitis and nipple blisters, possibly because of the lack of breast care although this figure is seen to be improved compared to previous years (MOH, 2016).

The puerperium is a period during labor and immediately after birth which includes the following weeks when the reproductive tract returns to a normal non-pregnant state (Marni, 2012).

According to the results of a study,> 80% more failure of breastfeeding mothers in providing exclusive breastfeeding is a psychological factor for nursing mothers themselves. Family support, especially the husband or father in the success of breastfeeding is urgently needed (Sari, 2014).

Many postpartum mothers neglect breast care. It might be because you are lazy or actually don't know the benefits. Some problems that occur if not doing breast care for postpartum mothers include nipple blisters, sore nipples, nipples pulled in, infections in the breast, swollen breasts and this is usually caused by lack of knowledge of the puerperal mother about breast care (Sari, 2014).

From the results of a previous survey conducted in 2014 Juhar Village of 10 postpartum mothers found by researchers

before there were 2 mothers who experienced mastitis and breast milk damaging problems.

Therefore, based on the above background, the researcher is interested in exploring the Postpartum Mother's Knowledge of Breast Care in Juhar Village, Juhar District, Karo Regency.

### THE METHOD OF THIS RESEARCH

The research conceptual framework is a description and visualization of the relationship or relationship between one concept to another concept, or between one variable with another variable of the problem that wants to be researched, while the framework of concepts in this research is knowledge, age, education, work and parity as an independent variable and breast care as a variable dependent.

The type and design of this research uses descriptive research method that is to describe or describe a phenomenon that occurs in society without looking for relationships between variables.

The population in this study were all postpartum mothers who were in Juhar Village, Juhar District, Karo District, as many as 30 people. The type of sampling in this study is total sampling or using a non-random sample design which means that all members of the population are used as samples.

In this study data analysis is presented using Univariate analysis which is used to describe the research variables in order to obtain a picture or characteristics before Bivariate analysis (Ayu, 2014). Data analysis is then continued by discussing the results of theoretical research and existing literature. Based on the value obtained by the respondent, the writer can determine the answer category of the respondent.

1. Good: if the respondent is able to answer correctly 70-100% of all questions, with the number of correct answers 14-20 questions.
2. Enough: if the respondent answered correctly 35-65% of all questions, with

the number of correct answers 7-13 questions.

3. Less: if the respondent is able to answer correctly 5-30% of all questions, with the number of correct answers 1-6 questions.

In this study, researchers used a questionnaire. The form of questions is closed, the number of questions is 20 questions with 2 items of answer choices using the Guttman scale, if the answer is correct, the value is 1, if the answer is wrong, the value is 0 with the formula:

$$\text{Formula P} = \frac{F}{N} \times 100\%$$

### THE RESULT AND THE DISCUSSION

This study entitled "The Description of Postpartum Mother Knowledge about Breast Care in Juhar Village" a sample of 30 people with the results obtained are as follows:

**Table 4.1.1**  
**Frequency Distribution of Respondents Knowledge About Breast Care in the Padang Bulan village in Medan Baru District in 2020**

No	Knowledge	Ferquency (f)	Presentation (%)
1	Good	5	16,7
2	Enough	10	33.3
3	Less	15	50
	Total	30	100

From the above table it can be seen that the knowledge of post partum mothers about breast care obtained from 30 respondents is the majority of less knowledged as many as 15 people (50%), the minority of good knowledge as much as 5 people (16.7%), and as much as 10 people (33), 3%).

Knowledge or cognitive is a very important domain for the formation of one's actions because experience and research turns out that behavior based on knowledge will be more lasting than behavior that is not based on knowledge.

Knowledge is one of the factors that determine someone can be younger to accept new things or information as technology advances. From the results of



the study there are still many postpartum mothers who have less knowledge, this is due to lack of knowledge, both from health workers and families and there is no counseling about breast care for postpartum mothers early.

**Table 4.1.2**  
**Frequency Distribution of Respondents' Knowledge Based on Age in KB Padang Bulan village in Medan Baru Medan in 2020**

No	Age	Knowledge Category						Total	
		Good		Enough		Less		F	%
		F	%	F	%	F	%	F	%
1	<25	-	-	4	13,3	12	40	16	53,3
2	25-30	1	3,4	3	10	2	6,6	6	20
3	>30	4	13,3	3	10	1	3,4	8	26,7
	<b>Total</b>	<b>5</b>	<b>16,7</b>	<b>10</b>	<b>33,3</b>	<b>15</b>	<b>50</b>	<b>30</b>	<b>100</b>

Based on the table above, it can be seen that the knowledge of postpartum mothers about breast care from 30 respondents obtained by age is the majority of lacking knowledge, namely at the age of <25 years as many as 12 people (40%), and quite more knowledge at the age of 25-30 years ie 3 people (10%) while a well-informed minority is > 30 years old, 4 people (13%).

Age is the time span of a person starting from birth to birthday. If someone has a mindset and mature experience as well. Age will greatly affect the power of comprehension so that the knowledge gained will be better.

**Table 4.1.3**  
**Distribution of Respondent Knowledge Frequency Based on Education in the Padang Bulan village in Medan Baru Medan in 2020**

No	Education	Knowledge Category						Total	
		Good		Enough		Less		F	%
		F	%	F	%	F	%	F	%
1	Primary School	-	-	1	3,4	9	30	10	33,3
2	Junior High School	-	-	1	3,4	3	10	4	13,3
3	Senior High School	1	3,4	6	20	3	10	11	36,7
4	College	4	13,3	2	6,6	-	-	5	16,7
	<b>Total</b>	<b>5</b>	<b>16,7</b>	<b>7</b>	<b>33,4</b>	<b>15</b>	<b>50</b>	<b>30</b>	<b>100</b>

Based on the table above, it can be seen that postpartum mothers' knowledge about breast care from 30 respondents obtained based on education is the majority who lack knowledge, namely 9 elementary school graduates (30%), and quite more knowledgeable high school education, 6 people (20%) while the minority is knowledgeable good, namely 4 people (13.3%).

Based on the theory, Education is the entire life process that is owned by each individual in the form of individual interaction with their environment. The higher a person's education, the easier he will find information. With high education, a person will tend to get information from both people and the mass media. Knowledge of its relationship with education, someone with higher education, the broader the knowledge possessed. The higher the level of postpartum education, the better understanding and knowledge about breast care.

**Table 4.1.4**  
**Frequency Distribution of Respondents' Knowledge Based on Work in KB Padang Bulan Subdistrict Medan Baru Medan in 2020**

No	Profession	Knowledge Category						Total	
		Good		Enough		Less		F	%
		F	%	F	%	F	%	F	%
1	Housewife	-	-	5	16,7	13	43,3	18	60
2	Entrepreneur	2	6,7	3	10	2	6,7	7	23,3
3	Government Employees	3	10	2	6,7	-	-	5	16,7
	<b>Total</b>	<b>5</b>	<b>16,7</b>	<b>10</b>	<b>33,4</b>	<b>15</b>	<b>50</b>	<b>30</b>	<b>100</b>

Based on the table above, it can be seen that postpartum mothers' knowledge about breast care based on occupation is the majority who have less knowledge, namely in the work of IRT as many as 13 people (43.3%), while there is quite more knowledge in entrepreneurial work, namely 3 people (10%) and a minority knowledgeable in the work of civil servants, namely 3 people (10%).

The work environment can make a person gain experience and knowledge

both directly and indirectly. Someone who works has better knowledge than does not work. This is consistent with the theory that the work environment can make someone gain experience and knowledge both directly and indirectly.

**Table 4.1.5**  
**Frequency Distribution of Respondents Knowledge Based on Parity in Padang Bulan village in Medan Baru Medan in 2020**

No	Parity	Knowledge Category						Total	
		Good		Enough		Less		F	%
		F	%	F	%	F	%	F	%
1	Primipara	-	-	-	-	12	40	12	40
2	Multipara	2	6,6	8	26,7	3	10	13	43,3
3	Grandepara	3	10	2	6,6	-	-	5	16,7
	<b>Total</b>	<b>5</b>	<b>16,6</b>	<b>10</b>	<b>33,4</b>	<b>15</b>	<b>50</b>	<b>30</b>	<b>100</b>

Based on the table above, it can be seen that postpartum mother's knowledge about breast care based on parity is the majority of less knowledgeable, namely in primiparous parity as many as 12 people (40%), while quite more knowledgeable in multipara parity 8 people (26.7%) and a knowledgeable minority good at grandemultipara parity that is 3 people (10%).

Based on the theory, there is a tendency for maternal health with higher parity than those with low parity. There is an association between the level of parity with certain diseases. Postpartum mothers who have high parity will get better knowledge, this is because the high number of parities will be more experienced and make it diligent in finding information.

## THE CONCLUSION AND THE SUGGESTION

After conducting research on "Knowledge of Postpartum Mothers About Breast Care in Juhar Village, Juhar Subdistrict, Karo District", it can be concluded that 15 people (50%) based on the age of postpartum mothers about breast

care taken from 30 respondents were the majority aged <25 years ie as many as 16 people (16 people (50%) 53.3%) and minority aged 25-30 years as many as 6 people (20%).

- From the results of the study it can be seen that the frequency distribution of respondents based on postpartum maternal education about breast care taken from 30 respondents is the majority of high school educated as many as 11 people (36.7%) and minority high school educated as many as 4 people (13.3%).
- From the results of the study it can be seen that the frequency distribution of respondents based on postpartum mothers' occupations about breast care taken from 30 respondents is the majority of IRT jobs, as many as 18 people (60%) and the minority of civil servant jobs, as many as 5 people (16.7%).
- From the results of the study it can be seen that the frequency distribution of respondents based on postpartum maternal parity regarding breast care taken from 30 respondents is the majority of multipara parity as many as 13 people (43.3%) and grandemultipara parity minorities as many as 5 people (16.7%).

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## THE EFFECT OF DISMENORE GENDER ON DECREASE PAIN TASTE OF STUDENTS IN THE STATE OF MITRA HUSADA MEDAN IN 2019

Hertanta Silaban<sup>1</sup>, Ingka Kristina Pangaribuan<sup>2</sup>, Marlina Simbolon<sup>3</sup>

Program Studi D-4, Program Kebidanan Program Sarjana Terapan

Sekolah Tinggi Ilmu Kesehatan (Stikes)

Email : [silabanhertanta@gmail.com](mailto:silabanhertanta@gmail.com)

[ingka.kristina@gmail.com](mailto:ingka.kristina@gmail.com)

[simbolon.marlina@yahoo.com](mailto:simbolon.marlina@yahoo.com)

### Abstract

Dysmenorrhea is a physical disorder in women who are menstruating in the form of abdominal pain / cramping. Cramps are especially felt in the lower abdomen radiating to the back or inner surface of the thigh. Prevention can be done by doing gymnastics or called dysmenorrhea gymnastics. Light exercise such as gymnastics is highly recommended to reduce dysmenorrhea. Gymnastics is one of the relaxation techniques that can be used to reduce pain because when doing gymnastics, the brain and spinal cord structure will produce endorphins, hormones that function as natural sedatives and cause a sense of comfort. This type of research uses quantitative research, using quasi-experimental research designs (Quasi Experiments) with Non Equivalent Control Group Design. Where in this study, using 2 groups, namely the control group and the intervention group, which was then measured before giving dysmenorrhea gymnastics (pre-test) and after giving dysmenorrhea gymnastics (post-test).

**Keywords: Dysmenorrhea, Gymnastics Dysmenorrhea**

Preliminary According to the World Health Organization (WHO) (2014), adolescents are residents in the age range of 10-19, and adolescence is divided into early adolescence (10-13 years old adolescents), middle adolescence (middle adolescenc) aged 14-16 years and late adolescence (17-19 years old). According to the Regulation of the Minister of Health of the Republic of Indonesia No. 25 of 2014, adolescents are residents in the age range of 10-18 years and according to the Population and Family Planning Agency (BKKBN) the age range of adolescents is 10-24 years and unmarried (Center for Data and Information of the Indonesian Ministry of Health, 2014).

According to WHO data (2014), in Indonesia, the incidence of disminore was 55% among productive age, where 15% of them complained about activities being limited due to disminore. Women have experienced disminore as much as 90%, this problem disturbs at least 50% of women of reproductive age and 60-85% in adolescence. Dysminore causes many

absences at school or office to force sufferers to rest, leave work and their daily lifestyle.

According to the results of the Indonesian Demographic and Health Survey (IDHS) in 2017 the population aged 10-19 years is 22.9% of the total population of Indonesia. The estimated number of menstrual events in Indonesia is 55% of women of reproductive age who are tortured during menstruation. The incidence (prevalence) of menstrual pain ranges from 45.95%, among women of childbearing age.

Menstruation is a natural and natural process in a woman's life. Disminore is pain in the abdomen that comes from Uterine cramps and occurs during menstruation. Dysminorrhea can also be interpreted as menstrual pain that occurs without signs of infection or pelvic disease. Besides dysminore also has meaning as uterine pain during menstruation. Primary dysminorrhea is not associated with pathological care and can occur without organic disease. The intensity of dysminorrhea can be reduced after pregnancy or at the age of around 30

years. So it can be concluded that dismenore is a pain felt by women during menstruation (Jannah & Rahayu, 2019).

Menstrual disorders are abnormalities of menstrual bleeding, related to the length and duration of the cycle, the amount of blood cycles, and pain. This involves the hypothalamus, pituitary, ovary and endometrium. Based on the type of pain, menstrual pain can be divided into spasmodic dysminore and congestive dysminore (Jannah & Rahayu, 2019).

Teenagers are the transition from childhood to adulthood. Adolescence is a period where there is a sudden change in the body and many questions arise in the minds of adolescents. First they are unable to cope with these changes, and secondly they also bring problems. Problems that are full of challenges in adolescent girls are related to menstruation. Menstruation is a physiological process of endometrial release that contains many blood vessels and this event occurs once every month the

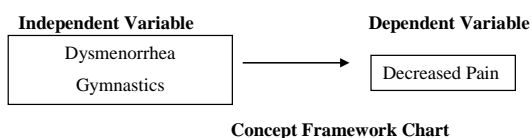
O1.....X1.....O2  
O3.....O4

**Research design :**

Information :

- O1 = Pre test before doing Disminore gymnastics
- O2 = Post test after doing Disminore gymnastics
- X1 = Implementation of disminore gymnastics
- O3 = Pre test in the control group.
- O4 = Post test in the control group

The conceptual framework is a formulation or simulation of the theoretical framework or theories that support the research. Therefore, this conceptual framework consists of variables and variable relationships with one another (Notoatmodjo, 2014).



**Results and Discussion**  
**Research result**

The results of research conducted by researchers with the title "The Effect of

menstrual cycle is the distance between the start of the last menstruation and the start of the next menstruation (Saifuddin, 2012).

Preliminary survey conducted by researchers found that all female students had experienced menstrual pain (dismenore) when they were menstruating, but the difference was the level of pain when experiencing pain.

**Method**

This type of research is quantitative research, using quasi-experimental research designs (Quasi Experiments) with Non Equivalent Control Group Design. Where in this study, using 2 groups, namely the control group and the intervention group, which was then measured before giving dysmenorrhea gymnastics (pre-test) and after giving dysmenorrhea gymnastics (post-test) (Rizki, 2018).

Dysmenorrhea Gymnastics Against Pain Relief Against Students of STIKES Mitra Husada Medan in 2019".

**Characteristics of Respondents**

**Age**

Characteristics of respondents by age can be seen from the following table:

**Table Frequency Distribution of Respondents by Age**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid < 20 Tahun	16	53.3	53.3	53.3
21-24 Tahun	14	46.7	46.7	100.0

**Table Frequency Distribution of Respondents by Age**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid < 20 Tahun	16	53.3	53.3	53.3
21-24 Tahun	14	46.7	46.7	100.0
Total	30	100.0	100.0	

Based on the frequency distribution of respondents by age it can be seen that from 30 respondents the majority in usa <20 years were 16 respondents (53.3%) and the minority at age 21-24 years were 14 respondents (46.7%)

**Pain intensity before gymnastics**

The level of pain intensity measured in this study appears in the values taken in the Pain Intensity table before gymnastics. The following is the intensity of pain before exercising:

**Pain Intensity Table before gymnastics**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Ringan	4	13.3	13.3	13.3
Sedang	9	30.0	30.0	43.3
Berat	17	56.7	56.7	100.0
Total	30	100.0	100.0	

Based on the Pain Intensity Table before gymnastics it can be concluded that the most dominant pain intensity that has the highest value (maximum) is the Severe Pain Intensity with a frequency of 17 Respondents (56.7%), then those between the maximum and minimum values are Medium Pain Intensities with a frequency of 9 respondents (30.0%) and the last is the minimum value found in the intensity of mild pain with a frequency of 4 respondents (13.3%).

**Pain intensity after gymnastics**

The level of pain intensity measured in this study looks at the value taken in the Pain Intensity table after gymnastics. The following is the intensity of pain after gymnastics is done:

**Pain Intensity Table after gymnastics**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Ringan	12	40.0	40.0	40.0
Sedang	15	50.0	50.0	90.0
Berat	3	10.0	10.0	100.0
Total	30	100.0	100.0	

Based on the Pain Intensity Table after gymnastics performed it can be concluded that the intensity of pain before exercise is reduced in the intensity of severe pain. In the Pain intensity section has a frequency of 3 respondents (10.0%), then in the moderate pain intensity has a frequency of 15 respondents (50.0%) and the last in the intensity of mild pain has a frequency of 12 respondents (40.0%).

**Statistics on pain intensity before and after gymnastics**

Here are the pain intensity statistics before and after gymnastics:

**Statistical tables of pain intensity before and after gymnastics**

		Pain intensity before gymnastics	Pain intensity after gymnastics
N	Valid	30	30
	Missing	0	0
Mean		2.4333	1.7000
Std. Error of Mean		.13290	.11890
Std. Deviation		.72793	.65126
Sum		73.00	51.00

On the Statistical Table of Pain Intensity before and after gymnastics there is a comparison of the mean values, namely the Pain Intensity before gymnastics (2.4333) while the mean values on Pain Intensity after gymnastics (1.7000). In the standard deviation in the Pain intensity section before gymnastics has a value of (.72793) In the standard deviation in the Pain Intensity section after gymnastics has a value of (.65126).

## T-Test Pain Intensity Before And After Gymnastics Independent Samples Test

Table  
Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Intensitas nyeri	7.588	.008	4.390	58	.000	.66667	.15187	.36266	.97067
			4.390	52.235	.000	.66667	.15187	.36195	.97139

The paired T-test results showed  $p = 0,000$  ( $p < 0.05$ ) which proves that the influence of Dysmenorrhea Gymnastics Against Pain Relief Against Students of STIKES Mitra Husada Medan in 2019.

### Discussion

Based on the calculation results of each statement item, it was found that the total score at the time of the initial test was higher than the final test. The results showed there was a difference between disminore pain before doing gymnastics, and after gymnastics the results obtained from this hypothesis test using the Dependent T-test found  $p = 0.00$  ( $p, 0.05$ ). the results of this study indicate that disminore gymnastics is effective in reducing pain scale during menstruation.

Dysminore is influenced by physical and psychological factors such as stress and the influence of the prostatglandin hormone. Therefore, by doing disminore gymnastics, the body will produce the hormone  $\beta$ -endorphin which functions as a natural sedative in the human body produced by the brain that can reduce stress, produce comfort and reduce pain during menstruation (praise, 2012).

The results of this study are also supported by the results of research conducted by Sorman (2014), where in the research he conducted with the intervention group using the paired T test  $p = 0.00$  ( $p < 0.05$ ), while in the control group using the test using an alternative test of Wilxon found the value  $p = 0.276$  ( $p < 0.05$ ), which means that disminore exercises affect the reduction of pain during menstruation.

According to the researchers' assumptions with the results of research that states that disminore gymnastics can reduce pain during menstruation, it turns out there is a decrease in pain 1 to 2 degrees of pain scale, such as the scale of the most severe pain to moderate pain, and from moderate pain to mild pain.

### Conclusions and recommendations

The results of identification of disminore pain felt during menstruation before exercising dysminorrhea showed an average of severe pain as many as 17 respondents (56.7%), after doing gymnastic disminore, the average pain of disminore was moderate pain of 15 respondents (50.0%) and in mild pain 12 respondents (40.0%). Based on the research results obtained  $p = 0, 000$  smaller than  $p$  value 0.05 so it can be concluded that

there is the effect of dysminorrhea exercises on reducing pain during menstruation.

### Suggestion

Based on the results of the discussion outlined earlier from research conducted on STIKes Mitra Husada Medan students, for the perfection of further research, then there are some suggestions below

#### For Researchers

The results of this study can add insight and knowledge about the management of menstrual pain (dismenore) in adolescents, especially in STIKes Mitra Husada Medan students. However, deepening of research for further researchers needs to be done to further refine the discussion and related interventions in terms of longer time, more samples.

#### For Educational Institutions

It is recommended as an input to increase knowledge and insight about services in the reproductive health section to help overcome problems, especially in adolescents related to menstrual pain.

#### For Respondents

It is expected to be able to add insight and knowledge to adolescents, especially at STIKes Mitra Husada Medan students in order to reduce pain when dismenore pain occurs.

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## FACTORS AFFECTING THE OCCURRENCE OF PERINEAL RUPTURE IN NORMAL DELIVERY MOTHERS AT BPM MIDWIFE NUR MUHIBBAH ACEH SINGKIL 2019

Rabiatul Adewiyah<sup>1</sup>

<sup>1</sup>STIKes Mitra Husada Medan

### ABSTRACT

Factors affecting the occurrence of perineal rupture in normal delivery mothers at BPM midwife Nur Muhibbah. (World Health Organisation) defines maternal death as death that occurs during pregnancy or death within 42 days post pregnancy or abortion without regard to the duration or place of delivery due to or exacerbated due to pregnancy itself or its management, laceration of the birth canal, one of which is rupture of the perineum which can occur almost every vaginal delivery but is not caused by accident or other causes not related to pregnancy. It is estimated that 60% of maternal deaths due to pregnancy occur after delivery and 50% of deaths occur within the first 24 hours. Regular monitoring during childbirth can prevent maternal and neonatal mortality and morbidity. On this basis, efforts to improve maternal and neonatal health become very strategic for efforts to develop quality human resources (WHO, 2014). The purpose of this study was to determine the relationship of newborn weight and parity with perineal rupture. The method used is observational analytic with cross sectional design. Total population of 32 respondents with a sample of 32 normal maternal respondents. Sampling in total sampling using analysis observation sheets used is univariate and bivariate analysis. The results of this study illustrate that multipara as many as 65.7% of respondents occurred perineal rupture in most multipara and newborn body weight  $0.003 < 0.005$  based on this study it can be concluded that perineum rupture, there are still a lot of at-risk mothers, multipara and newborn weight born  $> 4000$  grams.

**Keywords: Perineal rupture, newborn weight and parity**

### INTRODUCTION

World Health Organisation defines maternal death is death that occurs during pregnancy or death within 42 days post pregnancy or abortion without regard to the duration or place of delivery caused or aggravated by the pregnancy itself or its management, but not due to an accident or other cause not related to pregnancy.

It is estimated that 60% of maternal deaths due to pregnancy occur after delivery and 50% of deaths occur within the first 24 hours. Regular monitoring during childbirth can prevent maternal and neonatal mortality and morbidity. On this basis, efforts to improve maternal and neonatal health become very strategic for efforts to develop quality human resources (WHO, 2014).

Sustainable Development Goals (SDG's) targets are to reduce maternal mortality to below 70 per 100,000 live

births by 2030, requiring ongoing commitment and effort in 2011, There are 5 countries that have a maternal mortality rate (MMR) of 15-199 per 100,000 live births, namely Brunei Darussalam (24), the Philippines (99), Malaysia (29), Vietnam (59), and Thailand (48) and 4 countries have a MMR of 200-499 per 100,000 live births, including Indonesia, "AKI in Indonesia in 2012 amounted to 359 per 100,000 live births, this shows that maternal mortality rates in Indonesia are relatively high compared to the Philippines, Vietnam and Thailand. (Indonesia Health Profile, 2016).

According to WHO (2014), the maternal mortality rate (MMR) in the world is 289,000 people, Southeast Asia has 16,000 lives, while the maternal mortality rate of Indonesia is 214 per 100,000 live births, one of the causes of MMR in Indonesia is bleeding (30, 3%),

Hypertension in Pregnancy (HDK) (27.1%), infection (7.3%) Partition Loss (1.8%) and Abortion (1.6%), bleeding can occur during labor. (WHO, 2014). Maternal death is the death of a woman during pregnancy, childbirth or within 42 days after the end of pregnancy. The case of maternal mortality in Indonesia is still quite high. The main cause of maternal death in Indonesia is postpartum hemorrhage. Based on the cause of bleeding, tear of the birth canal is the third cause of bleeding after uterine atony, placental retention. (Mokhtar, 2012)

Maternal health is a measure of community welfare. Maternal mortality is the death of a woman during pregnancy, childbirth or within 42 days after the end of pregnancy, the case of maternal mortality in Indonesia is still quite high. In 2015 the maternal mortality rate is targeted to decrease to 103 per 100,000 births (RI Ministry of Health, 2013). The government has launched a safe mother hood initiative to secure pregnant women, give birth and afterward to a healthy and prosperous family (Sarwono, 2010).

The most important hemorrhage is a direct cause of maternal death in Indonesia is postpartum warning, uterine atony is the first hemorrhage that occurs in almost all first childbirths and not infrequently in subsequent deliveries Postpartum hemorrhage caused by perineal tears is the second cause of bleeding, tear of the birth canal also causes discomfort in the puerperal period that is giving pain to the suture marks and can also interferes with mobilization from postpartum mothers, the risk of infection can also occur in perineal wounds if the home care is not appropriate (Mokhtar 2012).

From the results of a research journal conducted by Fritria Dwi Anggraini, entitled Relationship of baby's birth weight with perineal tears in physiological labor in RB Lilik Tahun, it was concluded that labor often resulted in birth canal injury or what is called perineal rupture, the birth weight of the baby affects the stretching of the perineum However, perineal rupture still

occurs even if the baby is born not too big. The purpose of this study was to analyze the relationship of newborn body weight with perineal tears in physiological labor in RB Lilik (Fritria, 2016).

Data on the incidence of tears perineum in maternity worldwide there are 2.7 million cases and is expected to reach 6.3 million cases in 2050, in America of 26 million maternity there are 40% experiencing rupture. In Asia, there are quite a lot of perineal tears because 50% of the world's perineal tears occur in Asia. The prevalence of maternal women who experience perineal tears in Indonesia in the age group of 25-35 years is 24% of all deliveries at that age and 62% of all women aged 32-39 years (Fethus, 2014). AKI is one indicator of the success of health development. This indicator is not only able to assess maternal health programs, moreover it is able to assess the degree of public health because of its sensitivity to improving health services, both in terms of accessibility and quality. When viewed from the distribution sourced from the Aceh district / city health office, it is known that the number of maternal deaths reported was 149 cases and 103,931 live births, then the ratio of maternal mortality in Aceh in 2017 again showed a decrease to 143 per 100,000 lives. The regions that contributed the most to maternal deaths were East Aceh District which reached 20 cases, followed by North Aceh District with 18 cases and Pidie District with 15 cases and other districts / cities where the number of maternal deaths was between 1 and 11 cases. In 2017 the city of Sabang succeeded in suppressing the maternal mortality rate, this shows the high commitment of the local government in providing health services for pregnant women, birth mothers, and postpartum mothers (Aceh Health Profile, 2017).

From 23 districts / cities in Aceh, Aceh Tamiang district tends to be able to reduce the number of maternal deaths from 10 cases in 2015 to 9 in 2016 and again dropped to 5 cases in 2017. Followed by the

middle of Aceh district, from 7 cases dropped to 5 again dropped to 3 in 2017. As for the increase in cases occurred in West Aceh district from 3 cases in 2015 increased to 6 cases and continued to rise to 9 cases in 2017, followed by Aceh Singkil district from 6 cases in 2015 continued to increase reaching 11 cases in 2017, and South Aceh district from 2 cases in 2015 continued to rise to 6 cases in 2017. The proportion of maternal deaths was dominated by postpartum maternal deaths 73 cases (49%), followed by maternal mortality by 40 cases (27 %) and maternal deaths in pregnancy as many as 36 cases (24%) (Aceh Health Profile, 2017).

### RESULTS AND DISCUSSION

Univariate analysis was carried out to see the description of the frequency distribution of respondents based on the variables studied, namely maternal age, parity, method of delivery and birth weight. Variables, namely age, parity, and birth weight, can be seen in the frequency distribution table below :

Table 1. Frequency distribution of the occurrence of perineal rupture in vaginal delivery based on the age of the maternity at the Midwife Nur Muhibbah Clinic in Aceh Singkil in 2019

My mother's age	Frekuensi	Presentase (%)
19-25 tahun	18	51,4
26-30 tahun	8	22,9
31-40 tahun	7	20,0
41-50 tahun	2	5,7
Total	35	100

Based on table-1, it was known that there were 18 women (51.4%) aged 26-25 years old who were 26-30 years old (22.9%), who were aged 31-40 years old, as many as 7 people (20 , 0%), and those aged 41-50 years were 2 people (5.7%).

Table 2. Frequency distribution of the occurrence of perineal rupture in vaginal delivery based on maternal parity in the Midwife Nur Muhibbah Clinic Aceh Singkil in 2019

Paritas	Frekuensi	Presentase (%)
Primipara	9	25,7
Multi para	23	65,7
Grande Multi para	3	8,6
Total	35	100

Based on Table-2, it is known that maternal parity with Primipara as many as 9 people (25.7%), while multipara as many as 23 people (65.7), and grandemultipara as many as 3 people (8.6%).

Table 3. Frequency distribution of the occurrence of perineal rupture in vaginal delivery based on how to infect maternity mothers at the Nur Muhibbah Aceh Singkil Midwife Clinic in 2019.

How to Manage Mothers	Frekuensi	Presentase (%)
right	16	45,7
No true	19	54,3
Total	35	100

Based on Table-3 known that there were 19 people (54.3%) who gave them incorrectly, while those who did correctly were 16 (45.7%). mother gave birth at the clinic Nur muhibbah Aceh Singkil in 2019

Birth Weight Baby	Frekuensi	Presentase (%)
2500-3000	11	31,4
3000-4000	22	62,9
>4000	2	5,7
Total	35	100

Based on Table-4, it is known that there are 11 people who have birth weight babies at birth 2500-3000 grams as many as 11 people (31.4%), while those who have

birth weight of 3000-4000 grams are 22 people (62.9%). And > 4000 grams of 2 people (5.7%).

Table 5. Frequency distribution of respondents based on the incidence of spontaneous perineal rupture in the Midwifery Nur Muhibbah Clinic in

Perineal ruptur	Frekuensi	Presentase
Ruptur	26	74,3
Tidak ada Ruptur Perineum	9	25,7
Total	35	100

Based on Table-5 it was found that 26 women (74.3%) had perineal rupture (74.3%), while 9 (25.7%) did not experience perineum rupture.

### Bivariate analysis

Bivariate analysis aims to find out between the independent variable and the dependent variable using the cho square test, to find out the significant relationship between each independent variable and the dependent variable. Chi square test was performed using SPSS software with a 5% significance level (95% confidence level). Basic decision making with a 95% confidence level.

## DISCUSSION

### 1. Relationship between maternal age and the occurrence of perineal rupture in Normal labor

Based on table 7, it is known that the Asymp (2-sided) value in the Pearson chi square test is known to be 0.84. Due to the Asymp value (2-sided)  $0.084 > 0.005$ , then based on the decision-making basis above, it can be seen that  $H_a$  is accepted and  $H_0$  is rejected. Then it can be seen that "there is no significant relationship between maternal age with perineal rupture"

The results of this study are in line with research conducted by (Stella, 2015) there is no significant relationship between maternal age with perineal rupture. Women who are <20 years old or > 35 years old are

at risk of perineal rupture due to the age of <20 years, a woman's reproductive function is not perfect. Whereas at the age of > 35 years a woman's reproductive function has decreased compared to normal reproductive function so that the possibility for post-bleeding complications will be greater (Winkjosastro, 2012).

The government recommends that couples of childbearing age (PUS) should give birth in the age period of 20-35 years, in that age group the morbidity and mortality (mortality) of mothers and infants that occur due to pregnancy and childbirth are lowest compared to other age groups (BKKBN, 2015).

### 2. Relationship between parity and the incidence of rupture of the perineum in maternal

Based on table 8, it is known that the Asymp (2-sided) value in the Pearson Chi square test is known to be 0.03. Because the Asymp value (2- sided)  $0.003 < 0.005$ , then based on the decision-making basis above, it can be seen that  $H_0$  is accepted and  $H_a$  is rejected. Then it can be seen that "there is a significant relationship between parity with the occurrence of perineal rupture"

This is in line with research Syriac (2013). Which shows there is a significant relationship between parity and perineal rupture in normal labor. Seen from the occurrence of perineal rupture that occurred in primiparous labor and partly perineal rupture occurred in multiparous labor. The results of this study are also in line with research conducted by Widia (2017) which states that there is a close relationship between parity and the incidence of perineal rupture in the batulicin 1 health center in bamboo regency.

According to Aprilia's theory (2010) it is not always that mothers with little parity (primipara) experience perineal rupture and many parities (multipara and multipara grande) do not experience perineal rupture, because every mother has different levels of perineal elasticity. The more elastic the perineum, the rupture of the perineum is

unlikely. Occurrence of perineal rupture can be prevented or reduced by doing pregnancy exercises or pelvic floor exercises

### 3. The relationship between how to strike with the occurrence of perineal rupture

Based on table 9 it is known that Asymp (2 sided) in the Chi Square pearson test is known to be 0,000, because the Asymp (2 sided) value is 0,000 <0.05 then based on the conclusions above, it can be seen that there is a significant relationship, H0 is rejected and Ha is accepted. Then it can be seen that there is a relationship between how to strike with the incidence of ruptured perineum in normal delivery mothers.

This is also in line with Safrina's (2013) study of the relationship between striking technique and the occurrence of perineal rupture, showing that there is a relationship between striking technique and the occurrence of perineal rupture in normal delivery, the majority with correct striking technique. The results of this study are in accordance with the theory put forward by Manuaba (2013), suggesting that straining is right by straining in accordance with natural impulses during contractions. In addition, mothers are advised to hold their breath while straining or do not breathe breathlessly. The correct striking technique is when the mother straining does not lift the buttocks.

According to the researchers' assumption that there is a relationship between straining technique and the occurrence of perineal rupture because if the straining technique is straining, perineal rupture can also be more severe than the correct straining technique.

### 4. The relationship between birth weight and the occurrence of perineal rupture

Based on Table 10 it is known that Asymp (2 sided) in the Pearson Chi Square test is known to be 485, because the Asymp value of 485 > 0.005 then based on the above conclusions, that there is no significant relationship between birth weight with the

occurrence of perineal rupture Ha accepted and H0 rejected This is in accordance with research from Mohammad et al (2011). Which states there is no relationship between the condition of the perineum and birth weight of the baby. Correspondingly, rathfich et al. Mentioned no statistically significant relationship between birth weight, length or head circumference of the baby with perineal rupture. Which has a significant relationship to perineal rupture in the study of Ratfuchs et al. Is the increase in the average age of women during childbirth use of fundal pressure, prolongation of the second stage, early episiotomy, the use of oxytocin and dolatin and the health team that assisted in labor. However, it is different in the results of research conducted by researchers in this study where the factors that influence the occurrence of perineal rupture are the way to strike and parity while there is no significant relationship between birth weight and maternal age.

## CONCLUSION

Based on what has been done, it can be concluded that some of the respondents 74.3% of women experienced perineal rupture, 25.7 women did not experience perineal rupture.

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## THE RELATIONSHIP OF PREGNANT PRIMIGRAVID KNOWLEDGE ON PSYCHOLOGICAL CHANGES ON TRIMESTER III WITH INSOMNIA OCCURANCE IN DEBY CLINICAL MEDAN

Eva Ratna Dewi<sup>1</sup>, Nur Azizah<sup>2</sup>, Rida Warni Tanjung<sup>3</sup>

evaratna.dewi87@gmail.com  
STIKes Mitra Husada Medan

### ABSTRACT

#### Aim/Objective:

According to data from the National Sleep Foundation Survey (2014), 78% of pregnant women in the United States experience sleep disorders. While the research results Karger (2013) in France, stated that 75% of pregnant women experience sleep disturbances, most pregnant women experience sleep disturbances, and only 1.9% who did not wake up at night during the third trimester of pregnancy. From the initial survey conducted in Clinic Deby there were 10 pregnant women primigravidae of third trimester, seven pregnant women were less knowledgeable about the psychological changes and three pregnant women who are knowledgeable both about the psychological changes. This study aims to determine the relationship Knowledge About Pregnancy primigravid Psychological Changes In he tird Trimester with Insomnia occurrence in Clinical of Deby Medan

#### Material and method:

This research is an analytic cross sectional approach to find out the Relations Knowledge About Pregnancy primigravid on Psychological Changes in the third trimester with insomnia Genesis Clinic Deby, data capture used the total population with a total population of 32 respondents

#### Results :

This study used primary data and secondary data by using chi-square The results were obtained from 32 respondents by the level of knowledge of the majority of less knowledgeable as much as 20 respondents (62.5%), and the majority who have insomnia as many as 20 respondents (62.5%), According to the test results used chi-square statistic showed that a connection between knowledge primigravida pregnant women about the psychological changes in the third trimester with an incidence of insomnia evidenced by the value of  $p = 0.028 < 0.05$  was found.

#### Conclusion:

It can be concluded that there is a relationship primigravida pregnant women knowledge about the physiological changes in the third trimester with an incidence of insomnia, it is recommended to health workers of Deby to increase knowledge and understanding about the mothers psychological changes pregnant mothers through counseling

**Keywords:** Knowledge, Insomnia, Pregnancy

### INTRODUCTION

Women are social persons, namely psychophysical persons who need physical and psychological relations with other human beings. Women also want to be loved, want to be valued and recognized, want to be counted and get status in their groups. In this connection, women are always concentrating on themselves.

Women portray themselves as emotional, surrender, passive, subjective and physically weak and have a sex drive that changes. Hormonal instability that affects women's feelings and emotions has become a stereotype that has been developed in society so far that women are weak and unstable (Kartini, 2013).



Factors causing changes in the behavior of pregnant women is the increased production of the hormone progesterone. The hormone progesterone affects the psychological condition. But not always the influence of the hormone progesterone is the basis of psychological changes, but also the vulnerability of one's psychic power or better known as personality (Herri, 2012).

In the third trimester is often called the waiting period with full vigilance. In this period the woman begins to realize the presence of the baby as a separate being, so she becomes impatient waiting for the presence of the baby. There are feelings of anxiety remembering the baby can be born at any time. This makes him watch while watching and waiting for signs and symptoms of labor to appear (Elisabeth, 2015).

According to data from the National Sleep Foundation survey (2014), 78% of pregnant women in America experience sleep disorders. While the results of Karger's study (2012) in France, stated that 75% of pregnant women experience sleep disorders. 97% of pregnant women in the third trimester experience sleep disorders. Sleep disorders that are often experienced by pregnant women are a decrease in sleep duration. Most pregnant women experience sleep disorders and only 1.9% do not wake up during the night during the third trimester of pregnancy. Sleep disturbance in pregnant women is caused by anxiety related to changes in parental responsibilities.

Sarma and Franco, in Santiago said that 97% of pregnant women in the third trimester had sleep disorders. Sleep disorders that are often experienced by pregnant women are a decrease in sleep duration. Most pregnant women experience sleep disturbance, only 1.9% who do not fly at night during the third trimester of pregnancy. Sleep disturbance in pregnant women is caused by anxiety related to changes in the responsibilities of a parent (Franco, 2014).

Based on previous research conducted by the results of research by Luluk Mukhoiyaroh (2014) about the Relationship of Primigravida Pregnant Women's Knowledge About Psychological Changes in Trimester III with the incidence of insomnia in Hj Clinic. Dermawati Nasution Medan showed that from 46 respondents who were well informed as many as 10 respondents (20.8%), were well-informed as many as 8 respondents (16.7%) and were less well-informed as many as 28 respondents (58.3%) based on research there was a knowledge relationship. primigravida pregnant women about psychological changes in the third trimester with insomnia (Mukhoiyaroh, 2014).

Based on the initial survey conducted at Deby Clinic, 10 primigravida trimester III pregnant women obtained, there were 3 pregnant women who were well-informed about a psychological changes in trimester III and 7 people who lacked knowledge of psychological changes. Insomnia (insomnia) is caused due to discomforts such as excessive anxiety without cause, emotional disturbances, anxiety before delivery because the mother has never experienced pregnancy and childbirth before.

Based on the description above, the authors are interested in conducting research with the title "Relationship Knowledge of Primigravida Pregnant Women About Psychological Changes in the Third trimester with the incidence of Insomnia in Deby Medan Clinic in 2020.

## **MATERIAL AND METHODS**

The design of this study used an analytical survey method with a cross sectional approach. In this study, the relationship between the independent variables (knowledge of primigravida trimester III pregnant women) with the dependent variable insomnia incidence (Muhammad 2015)

The study was conducted at the Deby Clinic in Badar Street, Medan City District in 2020. The reasons for the research at the Deby Medan Clinic are: The population is

sufficient to be sampled. Based on the initial survey it turns out that the mother's knowledge about psychological changes in the third trimester is still lacking, the research location at the Deby Clinic no one has researched the same title yet. Population is the whole object of research or the object under study.

The population in this study were all trimester III primigravida pregnant women in the Deby Clinic in 2020, totaling 32 people. The collected data is presented in the form of a frequency distribution variable. Bivariate analysis is used to determine the relationship (correlation) between the independent variable (independent variable) with the dependent variable (dependent variable). To prove that there is a significant relationship between the dependent variables used in the Chi-square analysis, at the significance of the calculation of the variable p Value (0.05), it is said (Ho) is rejected, meaning that the two variables have a significant relationship (Muhammad, 2015).

## RESULT

From the results of the study entitled Primigravida's Knowledge of Pregnancy Relationship About Psychological Changes in Trimester III With the Incidence of Insomnia in the Deby Clinic in Medan in 2020 with a sample of 32 people. After being collected, then the data is processed and analyzed, the results obtained are as follows.

**Tabel 4.1.1 Frequency Distribution of Primigravida Pregnant Knowledge of Psychological Changes in Trimester III With the Incidence of Insomnia in Deby Clinic Medan**

No	Pengetahuan	F	%
1	Baik	12	37,5
2	Tidak Baik	20	62,5
<b>Jumlah</b>		<b>32</b>	<b>100</b>

Based on table 4.1.1 above, it can be concluded that the distribution of knowledge frequency in Primigravida

Pregnancy About Psychological Changes in Trimester III in Deby Clinic in 2020 towards 32 respondents, the most respondents were examined that the knowledgeable were not good 20 respondents (62.5%) , and the smallest who have good knowledge are 12 respondents (37.5%).

**Table 4.1.2 Frequency Distribution of Respondents by Age of Primigravida Pregnant Women About Psychological Changes in Trimester III With the Incidence of Insomnia in Deby Medan Clinic in 2020**

No	Usia	F	%
1.	16-20 Tahun	11	34,4
2.	21-25 Tahun	16	50
3.	25-30 Tahun	5	15,6
<b>Total</b>		<b>32</b>	<b>100</b>

Based on table 4.1.2 above, it was concluded that the frequency of respondent characteristics based on age in Primigravida Pregnancy About Psychological Changes in Trimester III in Deby Clinic in 2020 against 32 respondents Most respondents aged 21-25 years were 16 respondents (50%), and the Smallest respondents 25-30 years old as many as 5 respondents (15.6%)

**Table 4.1.3 Frequency Distribution Based on Primigravida Pregnant Women's Education About Psychological Changes in Trimester III With the Incidence of Insomnia in Deby Medan Clinic in 2020**

No	Pendidikan	Jumlah	
		F	%
1.	SMP	17	53,1
2.	SMU	12	37,5
3.	PT	3	9,4
<b>Total</b>		<b>32</b>	<b>100</b>

Based on table 4.1.3 above, it can be concluded that the characteristics of respondents based on education in Primigravida Pregnant women About

Psychological Changes in Trimester III in Deby Clinic in 2020 of 32 respondents. PT-educated as many as 3 respondents (9.4%)

**Table 4.1.4 Frequency Distribution Based on the Work of Primigravida Pregnant Women About Psychological Changes in Trimester III With the Incidence of Insomnia in the Deby Clinic Medan in 2020**

No	Pekerjaan	F	%
1.	IRT	20	62,5
2.	Wiraswasta	2	31,3
3.	Karyawan	10	6,3
<b>Total</b>		<b>32</b>	<b>100</b>

Based on table 4.1.4 above it can be concluded that the characteristics of respondents based on work in Primigravida Pregnant Women About Psychological Changes in Trimester III in Deby Medan Clinic in 2020 against 32 respondents Most respondents worked as IRTs as many as 20 respondents (62.5%), and the Most small respondents work as employees as many as 10 respondents (6.3%).

**Tabel 4.1.5 Distribusi Frekuensi Berdasarkan Informasi Responden Ibu Haml Primigravida Tentang Perubahan Psikologis Pada Trimester III Dengan Kejadian Insomnia Di Klinik Deby Medan Tahun 2020**

No	Sumber Informasi	F	%
1	Media Cetak	14	43,8
2	Media Elektronik	10	31,8
3	Tenaga Kesehatan	8	25
<b>Total</b>		<b>32</b>	<b>100</b>

Based on table 4.1.5 above it can be concluded that the characteristics of respondents based on sources of information on primigravida pregnant women about psychological changes in the third trimester at the Deby Medan clinic in 2020 against 32 respondents, where the largest number of print media was 14

respondents (43.8%), and the smallest were 8 respondents (25%).

**Tabel 4.1.6 Distribusi Frekuensi Ibu Hamil Primigravida Di Trimester III Dengan Kejadian Insomnia Di Klinik Deby Medan Tahun 2020**

No	Insomnia	F	%
1	Ya	20	62,5
2	Tidak	12	37,5
<b>Total</b>		<b>32</b>	<b>100</b>

Based on Table 4.2. Of the 32 respondents studied, it was found that the majority of primigravida pregnant women in the third trimester were the largest with insomnia, as many as 20 respondents (62.5%), and the smallest primigravida pregnant women in the third trimester who did not experience insomnia were 12 respondents (37, 37, 5%)

#### 4.2 Bivariate Analysis

**Table 4.1.7 Frequency Distribution of Primigravida Pregnancy Knowledge Relationships About Psychological Changes in Trimester III with the Incidence of Insomnia in Deby Medan Clinic in 2020**

No	Pengetahuan	Kejadian Insomnia				Total	P Value	
		Ya		Tidak				
		F	%	f	%			F
1.	Baik	1	3,1	11	34,4	12	37,5	0,000
2.	Tidak Baik	19	59,4	1	3,1	20	62,5	
<b>Total</b>		<b>20</b>	<b>62,5</b>	<b>12</b>	<b>37,5</b>	<b>32</b>	<b>100</b>	

Data Source: 2020 Research Data Processing Results

Based on Table 4.1.7 known from 12 respondents who have good knowledge, mothers who answered the occurrence of insomnia with Yes answers were 1 respondent (3.1%), and those who answered No Insomnia were 11 respondents (34.4%), while from 20 respondents those who did not know well were known to mothers who answered insomnia with Yes answers to 19 people (59.4%), and those who answered No Insomnia were 1 respondent (3.1%). Chi-square test is a statistical test conducted on two variables that are thought to be

related. To find out whether there is a relationship between these two variables. In the study, a chi-square test was performed with chi-square personnel. Based on the results of bivariate analysis, Chi-square test results obtained above with a confidence level of 95%  $\alpha = 0.05$  obtained P-value (0,000)  $< \alpha$ -value (0.05) then  $H_a$  is accepted. Thus it can be concluded that there is a Relationship between Primigravida Pregnant Women's Knowledge About Psychological Changes in Trimester III with Insomnia in Deby Medan Clinic in 2020.

## 4.2 Discussion of Research Results

After conducting research on 32 respondents namely Knowledge of Primigravida Pregnant Women About Psychological Changes in Trimester III With the Incidence of Insomnia in the Deby Clinic Medan in 2020 can be discussed as follows

### 4.2.1 Relationship of Mother's Knowledge Hamil Primigravida About Psychological Changes in Trimester III With the Incidence of Insomnia in the Medan Medan Clinic in 2020

Based on Table 4.1.7 known from 12 respondents who have good knowledge, mothers who answered the occurrence of insomnia with Yes answers were 1 respondent (3.1%), and those who answered No Insomnia were 11 respondents (34.4%), while from 20 respondents those who did not know well were known to mothers who answered insomnia with Yes answers to 19 people (59.4%), and those who answered No Insomnia were 1 respondent (3.1%). Based on the results of the chi-square test showed that significant or Pearson chi-square 0,000  $< 0.05$  then  $H_a$  was accepted and  $H_0$  was rejected which states that there is a relationship of knowledge of primigravida pregnant women about psychological changes with the incidence of insomnia in the Deby Clinic Medan in 2020.

According to the authors with research conducted and the results obtained, that pregnant women who experience insomnia

due to anxiety or feeling uneasy, worries before delivery because for these mothers pregnancy and childbirth the first, difficulty sleeping often occurs in pregnant women for the first time, especially if the stomach mother had enlarged so it was difficult to find a comfortable position. and insomnia can be prevented by sleeping as needed, having a regular and rational sleep schedule, not working when going to sleep, a comfortable bedroom, reducing noise, reducing light, not sleeping in a hungry condition, balanced healthy nutrition, relieving anxiety. Insomnia experienced by third trimester pregnant women often occurs due to fears before delivery so that mothers find it difficult to find a comfortable sleeping position for mothers, discomfort is the cause of reduced hours of sleep.

## CONCLUSION

After conducting research on the Relationship of Primigravida Pregnant Knowledge About Psychological Changes in Trimester III With the Incidence of Insomnia in Deby Medan Clinic in 2020, the following conclusions can be drawn:

Based on the knowledge of the majority of good knowledgeable mothers as many as 12 respondents (37.5%), poor knowledge of 20 respondents (62.5%). Based on the incidence of insomnia in Primigravida pregnant women about psychological changes, that the majority of pregnant women who experienced insomnia were 20 respondents (62.5%) and the minority who did not have insomnia were 12 respondents (37.5%). Based on the results of the chi-square test with a value of  $p = 0,000 < 0.05$  shows there is a relationship between the knowledge of the mother with the incidence of insomnia in the Deby Clinic Medan in 2020.

It is expected that this Scientific Writing can be used as an evaluation material for educational institutions especially the STIKes Mitra Husada Medan and can be a reference material for further researchers. Suggestions To Future Researchers With this research it is hoped

that it can add reading material as a comparison for the research to be conducted.

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## EFFECTIVENESS OF ACUPRESSURE TO REDUCE VOMITING NAUSEA IN PATIENTS RECEIVING CHEMOTHERAPY

Adelina Sembiring<sup>1</sup>, Indra Agussamad<sup>2</sup>

<sup>1</sup>STIKes Mitra Husada Medan, Medan - Indonesia

email: adelinasembiring91@gmail.com

### ABSTRAK

Vomiting nausea is one of the side effects of cytostatics and is often found in patients receiving chemotherapy. Vomiting nausea felt by patients receiving chemotherapy causes discomfort and can even affect the quality of life of patients. Acupressure is one way to treat vomiting nausea in patients receiving chemotherapy. Data collection was carried out using assessment questionnaires developed by Ahmad and Alafafsheh (2016) based on the rhodes index for nausea, vomiting and retching (INVR) instruments. This research is a quasi-experimental study with a total of 70 respondents consisting of 35 control groups and 35 intervention groups selected by simple random sampling technique. Statistical analysis using the wilcoxon signed rank test showed that there were differences to vomiting nausea in the control group and the intervention group ( $p = 0.064$ ;  $p = 0.000$ ) and the mann-whitney test showed that there were differences in vomiting nausea between the control group and the intervention group after acupressure administration. and antiemetic ( $p = 0,000$ ). The results of multivariate analysis showed that the experience of vomiting nausea was not controlled, history of alcohol consumption, history of motion sickness, chemotherapy drugs were not a confounding factor. Based on research results, vomiting nausea can decrease after acupressure. It is recommended to nurses to make acupressure one of the independent nursing interventions.

**Keywords:** Acupressure, Vomiting, Nausea

### BACKGROUND

Breast cancer is a disease that starts when cells in the breast begin to grow out of control (American Cancer Society, 2019). Data from the American Cancer Society (2019) shows that the number of breast cancer sufferers in the United States is 268,600 (30%), California 27,700 people, Florida 19,130 people, New York 17,490 people. Indonesia in 2013 had 0.5% of breast cancer (61,682 people), Sumatra Utara 0.4% (2,682 people) (Ministry of Health RI Infodatin, 2015). Data from the Haji Adam Malik Hospital Medical Record Medan in 2018 there were 7,997 patients suffering from breast cancer.

Handling is done on patients suffering from breast cancer one of which is chemotherapy. Chemotherapy is one treatment procedure that uses chemicals that are very powerful to stop or inhibit the growth of cancer cells in the body (Byju, Pavithran, & Antony, 2018). Data from

WHO in 2017 shows that the highest number of patients undergoing chemotherapy is in developing countries such as Africa (62.4%), America (52%), Southeast Asia (49%), Western Pacific (45%), Eastern Mediterranean (14.9%) (WHO, 2019). Data from the Haji Adam Malik Hospital Medical Record in Medan in 2017 there were 2483 patients who received chemotherapy.

One of the side effects of chemotherapy is vomiting nausea. Vomiting nausea if neglected can cause complications such as electrolyte imbalance, anorexia, weight loss, dehydration, worsening of the patient's general condition, reduction in chemotherapy doses and the patient can refuse or leave treatment (Ahmad, Dardas, & Ahmad, 2015). The results of the study of Escobar et al. (2015) in 19 hospitals in Spain 42% of patients complained of nausea and 20.8% complained of vomiting when receiving chemotherapy. Kottschade et al.

(2016) in America 35% of patients complain of nausea and 19% complain of vomiting when receiving chemotherapy. Al Qadire (2017) research results in Jordan show that although patients used antiemetic therapy, the overall incidence of nausea and vomiting was still high at 71.4% and 57.3%.

Management of nonpharmacological nausea and vomiting in patients receiving chemotherapy, one of which is acupressure (Genc & Tan, 2015). Acupressure is a therapy that uses fingers or blunt objects to stimulate points on the body to balance energy (Wang et al., 2019). Acupressure has been found to have a promising effect in reducing nausea and vomiting during chemotherapy. Study results of Byju, Pavithran and Antony. (2018) said that acupressure was effective in reducing nausea and vomiting in patients receiving chemotherapy.

The advantage of using acupressure is a non-invasive, natural, safe, no-cost treatment that is easy to apply without side effects (Avci, Owayulu, & Owayulu, 2016). According to Miao et al. 2017 also says that acupressure can be done by the patient himself. Acupressure can be integrated into current nursing practice and nurses can teach patients because acupressure skills are easy to learn and can be used to help broadly relieve various symptoms and patient care settings. Acupressure plays a role in increasing the release of beta endorphin dihipofise around TriggerZone Chemoreceptors (CTZ). Other studies have found that acupressure increases gastric motility which contributes to nausea and vomiting (Devi & Latha, 2015).

## METHODS

The research design used was quasi experimental with the nonequivalent control group pretest posttest design method. The study was conducted in May-August 2019 in the one day care (ODC) room of Haji Adam Malik General Hospital Medan. The study population was all breast cancer patients who received series II chemotherapy at the Haji Adam Malik

General Hospital Medan taken by simple random sampling technique. Inclusion criteria in sampling were one day care patients, had been diagnosed with breast cancer, stage III and IV, received chemotherapy drugs besides containing cisplatin, using ondansetron antiemetics, cycle II. Criteria for exclusion of respondents were skin problems in the arms or legs such as wounds, infection or lymphedema, physical disability, unable to communicate. The material used in this study is an acupressure therapy pen. The data collection method begins by asking about nausea and vomiting before treatment and answering the questionnaire sheet. The measuring instrument in this study is the index nausea vomiting and retching (INVR) developed by Ahmad and Alafafsheh (2016). Next the researchers performed acupressure at PC6 and ST12 points for 3 minutes for each point for a total of 12 minutes, that is 30 minutes before chemotherapy, 4 hours and 12 hours after chemotherapy. Measurement of nausea and vomiting done after 48 hours. The questionnaire was filled in with a measuring cup.

## RESULT

### Respondent Characteristics

**Table 1. Distribution of Pregnant Women Based on Characteristics**

Characteristics	Control		Intervention	
	n (35)	%	n (35)	%
<b>Age</b>				
26 – 35 Years	3	8,6	4	11,4
36 – 45 Years	7	20,0	11	31,4
46 – 55 Years	15	42,9	12	34,3
56 – 65 Years	8	22,9	7	20,0
>65 Years	2	5,7	1	2,9
<b>Gender</b>				
Male	-	-	-	-
Female	35	100	35	100
<b>Stadium</b>				
III	31	88,6	30	85,7
IV	4	11,4	5	14,3

Table 1. shows the distribution of breast cancer patients who received chemotherapy according to age in the control group most aged 46-55 years (early

elderly) as many as 15 people (42.9%), while in the intervention group the same was also the most aged 46-55 years (early elderly) as many as 12 people (34.3%).

The distribution of breast cancer patients who received chemotherapy by sex in the control group were 35 women (100%), while in the intervention group the same were all 35 women (100%). The distribution of breast cancer patients who received chemotherapy according to stage in the control group was mostly stage III as many as 31 people (88.6%), while in the intervention group it was also the same as stage III as many as 30 people (85.7%). The distribution of breast cancer patients who received chemotherapy according to the experience of uncontrolled nausea and vomiting in the control group that most did not have the experience of vomiting nausea was not controlled as many as 33 people (94.3%), whereas in the intervention group was also the same that did not have experience of vomiting nausea was not controlled as many as 34 people (97.1%). The distribution of breast cancer patients who received chemotherapy according to history of consuming alcohol in the control group and the intervention group was the same ie there was no history of consuming alcohol as many as 35 people (100%) in both groups. The distribution of breast cancer patients who received chemotherapy according to a history of travel sickness in the control group the most was not having a history of travel sickness as many as 33 people (94.3%), while in the intervention group it was also the same that did not have a history of travel sickness as many as 34 people (97.1%) and the distribution of breast cancer patients who received chemotherapy according to chemotherapy drugs in the control group the most was the level of moderate emetogenesis of 21 people (60%), the same as the intervention group which was the most was 22 people (62.9%).

### Bivariate Analysis

The bivariate analysis used in this study is the wilcoxon signed ranks test which is to compare the differences in vomiting nausea of patients who received chemotherapy before and after intervention in each group and the mann-whitney test to compare differences in vomiting nausea before and after intervention in the control group and the intervention group.

**Table 2. Differences in the Proportion of Vomiting Nausea in Breast Cancer Patients Receiving Chemotherapy in the Control Group (n = 35)**

Vomiting Nausea	Median (Minimum-Maximum)	p value
Pre	8.00 (5-11)	0.640
Post	8.00 (5-11)	

Based on the results of bivariate analysis using the wilcoxon signed ranks test, a significant p value was obtained in the control group of 0.640 ( $p > 0.05$ ), so there was no difference in vomiting nausea in the control group

### DISCUSSION

The average nausea score of vomiting after acupressure was significantly different between the groups that did acupressure and the groups that did not do acupressure ( $p$  value = 0.000). The results of this study support the research hypothesis that the average score of vomiting nausea in the intervention group is lower than in the control group. The results of this study have shown that acupressure performed on respondents who received chemotherapy or intervention groups can reduce the nausea score of vomiting by 3.11. The same thing happened in the control group also experienced a slight decrease in the score of nausea and vomiting that is equal to 0.23.

Vomiting nausea due to chemotherapy is pathophysiologically due to a complex multifactorial process that involves communication between several neurotransmitters and receptors in the



central nervous system and digestive tract. Hydroxytryptamine (5HT<sub>3</sub>), P supplementation, neurokinin-1 (NK1) and dopamine play an important role in the process of nausea and vomiting. Response to nausea, vomiting chemotherapy occurs through two mechanisms, namely the peripheral nervous system and the central nervous system. Hydroxytryptamine (5HT<sub>3</sub>) in the central nervous system is associated with the peripheral nervous system that originates in the gastrointestinal tract and is activated in the first 24 hours after administration of chemotherapy. NK1 in the central nervous system is associated with the main receptors of the brain involved in the process of nausea and vomiting that occurs through the central nervous system (Aaopro, 2018).

Data relating to the description of the value of vomiting nausea after intervention in breast cancer patients who received chemotherapy is shown in Table 4.3 that nausea and vomiting after the intervention of acupressure with the category of mild nausea, vomiting, there were 34 people (97.1%) breast cancer patients who received chemotherapy and moderate category of nausea, vomiting, 1 person (2.9%) breast cancer patients who received chemotherapy. After being given an acupressure intervention the number of respondents in the category of mild-to-mild nausea and vomiting increased in the category of mild nausea and vomiting. Wilcoxon signed ranks test analysis results in the intervention group obtained p value = 0.000

After acupressure intervention was suppressed or massaged at PC6 and ST36 points conducted 30 minutes before chemo, 4 hours after chemo and 12 hours, the majority of respondents experienced a decrease in nausea and vomiting scores after being assessed using a nausea vomiting and retching (INVR) index questionnaire developed by Ahmad and Alafafsheh (2016), meaning that the majority of breast cancer patients who receive chemotherapy experience a decrease in nausea and

vomiting after administration of the intervention. The results of this study are in line with the findings of Gehan et al (2017) in Egypt who reported in their research results that acupressure is effective for nausea and vomiting in breast cancer patients who receive chemotherapy with a p value <0.05.

Research that can be used as a supporter of this research has also been conducted by Soliman, et al. (2017). The aim of their study was to examine the effectiveness of P6 acupressure as a non-pharmacological technique in chemotherapy. The study was conducted on 100 outpatient women who received chemotherapy at the oncology clinic, 50 of them as a group who received acupressure therapy for a maximum of three minutes every morning and as needed to cure symptoms. The results showed that the group that received acupressure was effective for nausea and vomiting

The frequency distribution and percentage of subjects in the group who received antiemetics according to hospital standards and the group that received acupressure and antiemetics were calculated using computerization. Analysis of sociodemographic and clinical variables is shown in Table 1. Nausea and vomiting were assessed using the nausea vomiting and retching (INVR) index developed by Ahmad and Alafafsheh (2016). The results of the study have described the action of acupressure in breast cancer patients who received chemotherapy showed a positive effect namely reducing nausea and vomiting experienced and also breast cancer patients who received chemotherapy felt more comfortable.

## CONCLUSIONS

The conclusions of this study are 1)provision of antiemetics based on hospital standards is not effective against decreasing nausea and vomiting in patients receiving chemotherapy; 2)giving acupressure and antiemetics is effective against decreasing nausea and vomiting in patients receiving

chemotherapy; 3)there is a difference in the effectiveness of acupressure and antiemetics compared to antiemetics against nausea and vomiting in patients receiving chemotherapy; 4)there is no relationship between the experience of nausea and vomiting, history of consuming alcohol, history of motion sickness, type of chemotherapy to nausea and vomiting in patients receiving chemotherapy.

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## PAPILLA MAMMAE'S TACTICAL STIMULATION RELATIONSHIP TO ONE-STAGE LABOR PROGRESS ACTIVE AT HENNY CLINIC, MEDAN CITY IN 2019

Asnita Sinaga<sup>1</sup>, Siti Nurmala Dewi<sup>1</sup>, Kamelia Sinaga<sup>1</sup>

<sup>1</sup>STIKes Mitra Husada Medan-Indonesia

Email: asnitasinaga61@gmail.com

### ABTRAK

**Background:** Childbirth is the culmination of a series of pregnancy processes. Many pregnant women feel anxious, anxious, and anxious waiting for the birth to arrive. Based on data from the Inter-Census Population Survey (SUPAS) in Indonesia the MMR has decreased from 359 / 100,000 live births (KH) in 2012 to 305 / 100.00 KH in 2015. The causes of maternal death were bleeding (35.2%), hypertension (27.1%), infection (7.3%), prolonged labor (1.8%) and abortion (4.7%).

**Methods:** The type of research used by researchers is quantitative analytic research with cross sectional approach. The population is maternity mothers who are in the henny clinic. To find out the effect of tactile stimulation of mammary papillae on the progress of first phase active labor, which amounted to 35 women.

**Results:** giving birth in April. The sample of this study is a saturated sample taken from the total population of women giving birth to 35 pregnant women. The majority of research results were aged 20-35 years (51.4%), 16 primipara parity respondents, the majority of respondents were educated with high school education (42.8%), as many as 23 respondents (65.7%) had tactile stimulation. Chi square statistical test results showed that the value of  $p = 0.001 < 0.05$ , meaning that there is a relationship between the tactile variable mammary tactile stimulation with the progress of labor.

**Conclusion:** Conclusion there is the influence of mammary papilla tactile stimulation on the progress of active phase I labor, and it is expected that medical staff, especially midwives can improve midwifery services about normal delivery care with tactile stimulation of mammary papillae on the progress of labor in the active phase I.

**Key words:** Mammae Papilla Tactile Stimulation, Childbirth

### BACKGROUD

Childbirth is the culmination of a series of pregnancy processes. Many pregnant women feel worried, anxious, and anxious waiting for the birth to arrive. Pregnant women want to have a smooth delivery and be able to give birth to a perfect baby, but sometimes the labor process doesn't go properly and can't give birth normally (Kusnawati, 2013). The World Health Organization (WHO) estimates 800 women die each day as a result of pregnancy and pregnancy and birth. About 99% of all maternal deaths occur in developing countries. Approximately 80% of maternal deaths in

pregnancy, pregnancy, childbirth and after delivery. (WHO, 2014).

Based on data from the Inter-Census Population Survey (SUPAS) in Indonesia, MMR has decreased from 359 / 100,000 live births (KH) in 2012 to 305 / 100.00 KH in 2015. The causes of maternal mortality are rural (35.2%), hypertension (27), 1%), infection (7.3%), prolonged labor (1.8%) and abortion (4.7%). (Indonesia Health Profile, 2016). One of the important process indicators in the safe motherhood program is to pay attention to the smallest amount of delivery that can support health personnel. (Lestari, 2015). During labor and delivery, the safe delivery of the fetus is a major concern in all labor. (Varney, 2010) During

pregnancy, breasts enlarge due to the influence of the increased hormones estrogen and progesterone. The air measure of milk has not been produced during pregnancy. Immediately after giving birth to the pituitary baby begins to secrete the hormone prolactin which is responsible for the production of milk in the milk due to stimulation from the birth of the baby. While the process of expelling milk is assisted by muscle contraction around the nipples and areola which is stimulated by the hormone oxytocin (the hormone responsible for uterine contractions during childbirth.) (Yongki, 2012).

Labor and delivery are normal physiological events in life. The birth of a baby is also a social event for mother & family. The mother's role is to give birth to her baby, while the role of the family is to provide assistance and support to the mother when the labor occurs. In this case the role of health workers is no less important in providing assistance and support to mothers so that the entire series of childbirth processes takes place safely for both mother and baby. (Scientific, 2014).

Like the birth process using advanced technology incesarean section, but who would have thought that it was the stimulation given to Papillia Mammae (PM) or nipples carried out by the husband who is the mother's companion during childbirth will provide benefits, namely to encourage the release of oxytocin which will stimulate contractions to become stronger naturally, and can help the birth process naturally. (Lestari, 2015).

During labor, tactile stimulation of the mammary papillae or nipple stimulation is very useful to stimulate contractions, but in practice it has not been widely practiced at the time of delivery. Like a preliminary survey conducted by researchers at the Henny Clinic, where mothers who gave birth in the first stage of the active phase who were given tactile breast papilla stimulation experienced faster labor progress than mothers who were not given tactile mammary papilla stimulation. Many

husbands of mothers who are going to give birth are shy and do not know what it means if they are asked to stimulate the mammae papilla. According to Sri Lestari's 2014 research, nipple stimulation can cause contractions during childbirth. This is often seen as a natural induction technique or as an augmentation of labor. (Lestari, 2015)

## METHODS

The type of research used by researchers is quantitative research that is analytic with a cross sectional approach, namely an epidemiological study that measures several variables at once, for example to determine a relationship or influence. (Sastroasmoro, 2017) This study aims to analyze the effect of stimulation of the mammae papilla on the progress of labor at the first stage of the active phase at the Henny Clinic. The sample of this research is a saturated sample taken from the total population of mothers who give birth, namely 35 mothers. Data analysis used in this research Bivariate analysis uses cross tables to highlight and analyze differences or relationships between two variables. Chi Square analysis was used to test whether there was a difference / relationship between variables, with a significance level of  $\alpha = 0.05$

## RESULT

### Tabel 1 Respondents Frequency Distribution Based on Tactile Mammae Papilla Stimulation

Respondents' frequency distribution based on tactile stimulation of papilla mammae which is divided: Doing and Not Doing. The distribution of respondent frequency by education can be seen in the table below

No	Tactile Stimulation in Mammae Papilla	Total	
		F	%
1	To Do	23	65,7
2	Do Not	12	34,3
<b>Total</b>		<b>35</b>	<b>100</b>

The frequency distribution above can be seen that the Relationship between Mammae Papilla Tactile Stimulation on the Progress of Stage I Labor in the Active Phase of 35 respondents, the majority of which do as many as 23 respondents (65.7%) and the minority does not do as many as 12 respondents (34.3%).

**Table 2. Respondents Frequency Distribution Based on Progress in Labor**

Respondents frequency distribution based on tactile breast papilla stimulation divided: Fast <360 Minutes and Slow> 360 Minutes. The frequency distribution of respondents based on the above categories can be seen in the table below:

No	Progress in Labor	Total	
		F	%
1	Fast <360 Minute	19	54,3
2	Slow >360 Minute	16	45,7
<b>Total</b>		<b>35</b>	<b>100</b>

Based on the frequency distribution table above, it can be seen that the Relationship between Mammae Papilla Tactile Stimulation to the Progress of Stage I Labor in the Active Phase of 35 respondents, the majority is Fast <360 minutes, 19 respondents (54.3%) and the minority is Slow> 360 minutes, as many as 16 respondents (45.7%).

**Table 3. Bivariate Analysis of the Relationship between Mammae Papilla Tactile Stimulation on the Progress of Childbirth during the One Active Phase**

Bivariate analysis was used to identify the relationship between the variables of the tactile stimulation of the mammae papilla on the progress of labor. To see the relationship between the variable tactile papilla breast stimulation on the progress of labor at the Henny Clinic, Medan City, it can be seen in the Table:

Variabel	Progress In Labor				Total	P	
	Quick		Slow				
	F	%	F	%	F	%	
<b>Tactile Stimulation In Mammae Papilla</b>							
To Do	16	45,7	7	20	23	65,7	0,012
Do Not	3	8,6	9	25,7	12	34,3	

Based on the results of the bivariate analysis between the variable tactile breast papilla stimulation with the dependent variable, namely labor progress, it was found that: The results of the analysis of the relationship between tactile stimulation of papilla mammae and labor progress showed that there were 16 out of 23 people (45.7%) of respondents who did tactile stimulation of papilla mammae and labor progress was very fast, while among respondents who did not do tactile stimulation of papilla mammae there 3 people (8.6%) experienced fast progress. The results of the chi square statistical test showed that the value of  $p = 0.012 < 0.05$ , meaning that there was a relationship between the variable tactile stimulation of the mammary papillae and the progress of labor.

**DISCUSSION**

From the results of the analysis of the relationship between tactile stimulation of papilla mammae and progress in labor, it was found that 16 out of 23 people (45.7%) of respondents did tactile stimulation of papilla mammae and labor progress was very fast, while among respondents who did not do tactile stimulation of the mammae papilla. there were 3 people (8.6%).

The results of the chi square statistical test showed that the value of  $p = 0.012 < 0.05$ , meaning that there was a relationship between the variable tactile stimulation of the mammary papillae and the progress of labor. It can be concluded that mothers who do tactile mammary papilla stimulation experience progress in labor faster than mothers who do not do mammae papilla tactile stimulation. Because by doing tactile stimulation of the mammae papilla can stimulate the hormone oxytocin, thus accelerating contractions and

accelerating the opening. (Kavanagh, J 2015).

## CONCLUSIONS

The conclusion in this study is that there is a relationship between the tactile stimulation of the mammary papillae to the progress of the first stage of labor in the active phase. The results of the chi square statistical test show that the value of  $p = 0.012 < 0.05$ , meaning that there is a relationship between the variable tactile stimulation of the mammary papillae with the progress of labor.

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## RELATIONSHIP OF CHARACTERISTICS OF PREGNANT WOMEN WITH THE COMPLETENESS OF ANTENATAL CARE (ANC) VISIT IN THE CLINIC NURHAYATI TEMBUNG 2020

Astaria Br Ginting<sup>1</sup>, Sri Bulan<sup>2</sup>, Diah Pitaloka

<sup>1</sup>STIKes Mitra Husada Medan, Medan - Indonesia

email: feliciajovitasembiring@gmail.com

### ABSTRAK

**Background:** According to the World Health Organization (WHO), pregnancy-related morbidity and mortality that occurs in each country needs to be collaborated in order to improve survival by maximizing health services. WHO also estimates that about 15% of all pregnant women will develop complications, which can be prevented through the provision of quality pregnancy care. General purpose To find out the relationship between characteristics of pregnant women and completeness of Antenatal Care.

**Methods:** The type of research used is descriptive correlation, The research design used a "cross sectional" approach with the chi square test, a type of research that emphasizes the measurement time of observation, or the collection of data on independent and dependent variables only once at a time. The sampling technique in this study was carried out by means of accidental sampling and The sample in this study were 33 trimester III pregnant women. The data collected was then analyzed univariate and bivariate.

**Results:** The results of bivariate analysis showed that there was a There is a Knowledge Relationship with Complete ANC Visits at the Nurhayati Tembung Clinic in 2020, here is a relationship between education and the completeness of ANC visits at the Nurhayati Tembung Clinic in 2020, There is a relationship between age and completeness of ANC visits at Nurhayati Tembung Clinic in 2020, there is no employment relationship with completeness of ANC visits at Nurhayati Tembung Clinic in 2020, There is a Parity Relationship with Completeness of ANC Visits at Nurhayati Tembung Clinic in 2020.

**Conclusions:** It is hoped that it can be used as input and thought contributions for midwives in the clinic to further improve services to the community, especially in ANC services

**Keywords:** characteristics of pregnant women, completeness of the visit anc

### BACKGROUND

Assessment of the implementation of health services for pregnant women can be done by looking at the K1 and K4 coverage. K4 coverage is the number of pregnant women who have received antenatal care according to the standard at least four times according to the recommended schedule in each trimester compared to the target number of pregnant women in one work area in one year. This indicator shows the access to health services for pregnant women and the level of compliance of pregnant women in checking their pregnancies with health workers (Kemenkes RI, 2017).

Antenatal care is very important for pregnant women to know because the presence of anteatal care can help reduce the Maternal Mortality Rate (MMR) and the Infant Mortality Rate (IMR). Another advantage that pregnant women can get is to maintain a healthy pregnancy during pregnancy, childbirth and the puerperium and plan for optimal management (Widiastini, 2017)

According to the 2016 Indonesian Health Profile, there was a decrease in the K4 coverage rate in 2016, namely 85.35% compared to 2013, which was 86.85%, while in 2015 it was 87.45%. This decrease was due to several factors, namely antenatal examinations based on 10 T service quality,

high mobility in urban areas, too high targeting of pregnant women in several districts / cities, there is a culture of the community just before childbirth back home, and recording and reporting is still not optimal (Ministry of Health, 2016)

**METHODS**

The type of research used is descriptive correlation, The research design used a "cross sectional" approach with the chi square test, a type of research that emphasizes the measurement time of observation, or the collection of data on independent and dependent variables only once at a time. The sampling technique in this study was carried out by means of accidental sampling and The sample in this study were 33 trimester III pregnant women. The data collected was then analyzed univariate and bivariate.

**RESULT**

**Respondent Characteristics**

**Table 1. Distribution of Pregnant Women Based on Characteristics**

No	Characteristics of Pregnant Women	f	%
1	<b>Knowledge</b>		
	Not Good	21	63,3
	good	12	36,4
2	<b>Education</b>		
	No school	7	21,2
	Primary school	8	24,2
	Junior high school	12	36,4
	Senior high school	5	15,2
	College	1	3
3	<b>Age</b>		
	17-25	9	27,3
	26-35	19	57,6
	36-45	5	15,2
4	<b>Profession</b>		
	Not work	20	60,6
	work	13	39,4
5	<b>Parity</b>		
	Nulipara	2	6,1
	Primipara	6	18,2
	Multipara	22	66,7
	Grandemultipara	3	9,1
6	<b>Complete ANC Visite</b>		
	Incomplete	25	76
	Complete	8	24
	<b>Total</b>	<b>33</b>	<b>100%</b>

Based on Table 1. can be seen that of the 33 respondents of pregnant women in the third trimester there are 21 respondents (63.3%) who have good knowledge, and 12 respondents (36.4%) who have poor knowledge, the majority of education completed SLTP / equivalent as many as 12 respondents (36.4%) and the minority of academy / tertiary education is 1 respondent (3.0%), majority aged 26-35 were 19 respondents (57.6%) and minority aged 36-45 were 5 respondents (15.2%), majority Do not work as many as 20 respondents (60.6%) and minority work as many as 13 respondents (39.4%), The majority of multiparity parity were 22 respondents (66.7%) and the minority parity Nulipara were 2 respondents (6.1%), incomplete ANC visits were 25 respondents (75.8%) and complete ANC visits were 8 respondents (24.2%).

**Bivariate Analysis**

Bivariate analysis of the relationship between characteristics of pregnant women and completeness of anc visits

Variable	completeness of the visit anc				P-value	
	Incomplete		Complete			Total
	F	%	F	%		
<b>Knowledge</b>						
Not Good	13	62	8	38	21	100,0
Good	12	100	0	0	12	100,0
<b>Education</b>						
No school	7	100	0	0	7	100,0
Primary school	3	37,5	5	62,5	8	100,0
Junior high school	9	75	3	25	12	100,0
Senior high school	5	100	0	0	5	100,0
College	1	100	0	0	1	100,0
<b>Age</b>						
17-25	4	44	5	56	9	100,0
26-35	16	84	8	16	19	100,0
36-45	5	100	0	0	5	100,0
<b>Profession</b>						
Not work	14	70	6	30	20	100,0
Work	11	84,6	2	15,5	13	100,0
<b>Parity</b>						
Nulipara	0	37,5	2	62,5	2	100,0
Primipara	6	78,6	0	21,5	6	100,0
Multipara	16	100	6	0	22	100,0
Grandemultipara	3	100	0	0	3	100,0

Based on the results of the bivariate analysis There is a Knowledge Relationship with Complete ANC Visits at the Nurhayati Tembung Clinic in 2020, here is a relationship between education and the



completeness of ANC visits at the Nurhayati Tembung Clinic in 2020, There is a relationship between age and completeness of ANC visits at Nurhayati Tembung Clinic in 2020, there is no employment relationship with completeness of ANC visits at Nurhayati Tembung Clinic in 2020, There is a Parity Relationship with Completeness of ANC Visits at Nurhayati Tembung Clinic in 2020.

## DISCUSSION

Of the 33 respondents of pregnant women in the third trimester there are 21 respondents (63.3%) who have good knowledge, and 12 respondents (36.4%) who have poor knowledge, the majority of education completed SLTP / equivalent as many as 12 respondents (36.4%) and the minority of academy / tertiary education is 1 respondent (3.0%), majority aged 26-35 were 19 respondents (57.6%) and minority aged 36-45 were 5 respondents (15.2%), majority Do not work as many as 20 respondents (60.6%) and minority work as many as 13 respondents (39.4%), The majority of multiparity parity were 22 respondents (66.7%) and the minority parity Nulipara were 2 respondents (6.1%), incomplete ANC visits were 25 respondents (75.8%) and complete ANC visits were 8 respondents (24.2%).

Based on the results of the bivariate analysis There is a Knowledge Relationship with Complete ANC Visits at the Nurhayati Tembung Clinic in 2020, here is a relationship between education and the completeness of ANC visits at the Nurhayati Tembung Clinic in 2020, There is a relationship between age and completeness of ANC visits at Nurhayati Tembung Clinic in 2020, there is no employment relationship with completeness of ANC visits at Nurhayati Tembung Clinic in 2020, There is a Parity Relationship with Completeness of ANC Visits at Nurhayati Tembung Clinic in 2020.

According to the researchers' assumptions, the low ANC visits in this study were due to several factors, namely

the low knowledge of pregnant women, the majority of which were lacking about ANC, the education of pregnant women, the majority of which were junior high school, the age of pregnant women, the occupation of pregnant women, the majority of whom did not work, the parity of pregnant women who were mostly multiparous so that pregnant women think there is no need for examinations anymore because they have a lot of experience from previous pregnancies.

The maternal health service program in Indonesia recommends that pregnant women carry out antenatal care at least four times during pregnancy. Pregnancy examinations are in accordance with the minimum frequency in each trimester, namely at least once in the first trimester (0-12 weeks of gestation), at least once in the second trimester (12-24 weeks of gestation), and at least twice in the third trimester (age 24 weeks of pregnancy until delivery) (Kemenkes RI, 2018).

## CONCLUSIONS

From the results of the study "The Relationship between Characteristics of Pregnant Women and Completeness of Antenatal Care (ANC) Visits at the Nurhayati Tembung Clinic in 2020". It can be concluded:

1. From the results of the chi-square personnel test, it shows that the significant probability value of Knowledge is = 0.030 <sig a value = 0.05, this proves that there is a relationship between knowledge and completeness of Antenatal Care (ANC) visits at Nurhayati Tembung Clinic in 2020.
2. From the results of the chi-square personnel test, it shows that the significant value of the probability of education is = 0.032 <sig a = 0.05, this proves that there is a relationship between education and completeness of Antenatal Care (ANC) visits at the Nurhayati Tembung Clinic in 2020.

3. From the results of the chi-square personnel test, it shows that the significant value of the probability of age is = 0.028 <sig a = 0.05, this proves that there is a relationship between age and completeness of Antenatal Care (ANC) visits at the Nurhayati Tembung Clinic in 2020.
4. From the results of the chi-square personnel test, it shows that the significant value of the probability of work is = 0.431 > the sig a = 0.05, this proves that there is no work relationship with the completeness of Antenatal Care (ANC) visits at the Nurhayati Tembung Clinic in 2020
5. From the results of the chi-square personnel test, it shows that the significant probability value of parity is = 0.026 <sig a = 0.05, this proves that there is a correlation between parity and completeness of Antenatal Care (ANC) visits at the Nurhayati Tembung Clinic in 2020.

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STIKes Mitra Husada Medan

## THE INFLUENCE OF OBESITY AND PHYSICAL ACTIVITY TO THE INCIDENT HYPERTENSION IN WOMEN YOUNG ADULTS AT TELADAN HEALTH FACILITY OF MEDAN CITY 2017

Nur Azizah<sup>1</sup>, Eva Ratna Dewi<sup>2</sup>

[azizahlubis243@gmail.com](mailto:azizahlubis243@gmail.com)<sup>1</sup>, [evaratna.dewi87@gmail.com](mailto:evaratna.dewi87@gmail.com)<sup>2</sup>

STIKes Mitra Husada Medan

### ABSTRACT

**Background:** Hypertension is a major problem in public health that plagues the entire world in both developed and developing countries. The prevalence of hypertension in Indonesia at the age of 18 years and over by 31.7% in women and 31.3% for men. Young adult age has the same chances as old age for hypertension, if lifestyle and diet are not healthy. Obesity and lack of physical activity one of the risk factors of hypertension. **Material and Methods:** The aim of study is to determine the influence of Obesity and Physical activity on the incidence of hypertension in young adult women. This study with case control design. Cases are people who diagnosed as hypertension as much as 48 respondents and control are people does not have hypertension as much as 48 respondents or ratio 1:1. Data analyzed methods used include bivariate analysis with *chi-square* and Multivariate analysis using logistic regression test. **Results:** The result of this study indicate that the incidence of hypertension in Puskesmas Teladan influenced by obesity  $p < 0,001$ , OR=9.95% CI 2,876-28,494, physical activity with  $p = 0,003$ , OR=3,6 95% CI 2,129-20,905. Logistic regression analysis obtained the factors that have the most dominant influence of hypertension incidence is the obesity. **Conclusion :** advice given is to provide aducation about hypertension and its prevention by implementing a healty lifestyle such as controlling weight and food intake, and exercising regularly.

**Keyword :** hypertension , obesity, physical activity

### INTRODUCTION

Hypertension is a condition in which a person experinces an increase in blood preassure above normal which results in an increase in morbidity and mortality. Hypertension is often given the title of “the silent killer” because the disease is a hidden killer. Blood pressure or hypertenson has killed 94 million people worldwide each year. The World Health Organization (WHO) estimate that the number of hypertension patients will continue to increase as the population increase. In the next 2025, projected around the world citizens exposed to hypertension (WHO, 2013).

The prevalence of high blood pressure in Indonesia in 2013 reached 26.5%. The prevalence of women tends to be higher than in men that is 22.8% for men and women 28.8%. North Sumatra is one

province that has a stagnant and unchanged prevalence.

Hypertension often occurs because it has no specific symptoms. The number of hypertensive patients is estimated at 15 million Indonesian nation but only 4% are able to control hypertension (Bustan, 2015). According to research Robbins et al (2011) approximately 40% of adults with hypertension are not aware they have the condition.

Hypertension over long periods of time and without treatment can cause damage to the kidneys, heart, brain, and may affect future pregnancy and birth in young adult women. A young age is not an age which is free from the risk of hypertension but have the same opportunities for elderly people to have hypertension, especially lifestyle and unhealthy diet (Manuaba, 2015)

Lifestyle is an important risk factor for the incidence of hypertension in a person in young adulthood is influenced by unhealthy lifestyles, such as changes in diet that shifts to high carbohydrate, high fat and low fiber resulting in an unbalanced diet. In addition to the lack of physical activity in adulthood, the increasing routine causes one to not have time to exercise. Changes in diet and reduced physical activity have resulted in the increasing number who have more nutritional problems such as overweight and obesity.

Some studies show closely the association of the influence of obesity and lack of physical activity on the incidence of hypertension. Jacson, et al (2013) in her study the lowest hypertension occurred in women who had moderate or high activity and maintained weight. Research in the United States in young adult women aged 20-40 years that obese women have 4 times the risk of hypertension. The prevalence of adult female obesity (> 18 years) was 32.9% up 18.1% from 2007 (13.9%). North Sumatra includes 13 provinces with obesity prevalence above the national prevalence of 40% (Kemenkes, 2013).

In addition to obesity factors lack of physical activity can cause hypertension. Regular physical activity causes the heart to work more efficiently, reduced heart rate, and will cause normal blood pressure. Physical activity is needed to burn energy in the body if excess energy and not balanced balanced physical activity will make it easier for someone to be fat. In 2013, the population of Indonesia is less active as much as 26.1% and the proportion of behavior as per  $\geq 6$  hours is more prevalent in women (Kemenkes, 2013).

Based on the above description above, there is a shift of hypertension pattern from elderly to reproductive age. From the data of Medan City, the number of hypertension occurrence is higher among women, 12.8% and 67% of obesity.

## MATERIAL AND METHODS

This study uses observational analytics with case control research design that is an observational analytic epidemiological study that examines the relationship between certain effects (disease or health condition) with certain risk factors (Sastroasmoro Sudigdo, 2016). This study aims to find the influence of obesity and physical activity on the incidence of hypertension in young adult women in the Puskesmas Medan Model Year 2017.

The location of this research is Puskesmas Teladan Medan City. The study sample was all young adult women suffering from hypertension. The Time of Research starts from January - September 2017. The population in this study were all young adult women who suffer from hypertension. The total sample was 48 people for the case and 48 people for the control that was 1: 1 by using inclusion criteria of case group ie female of young woman from age 20-40 years, hypertensive patient, residing in puskesmas model area.

The variable consists of the dependent variable that is obesity and physical activity and the independent variable is hypertension. The technique of analyzing the data was done by 2 univariate and bivariate steps using chi-square test.

## RESULT

Output research in medan city of the majority of respondent 31-40 year old in the case group as many as 40 people (83,3%) and the control group as many as 28 (41,7%). The majority of work respondents were entrepreneur (43,8%) and control group as housewife (41,7%). The majority of senior high school education in the case group as many as 33people (68,8%) and the control group asa many as 24 people (50%) [Table 1].

Women young adults obese who are mojourity obese have hypertension. Based on physical activity on young adult women whose hypertension majority experience low physical activity [Table 2]. The result of Chi-Square was found that there was an effect of obesity and physical activity on

the incidence of hypertension in young adult women with a p value of less than 0.05 [Table 3].

**Tabel 1. Characteristics of respondents in Medan City**

No	Charakteristic respondents	Recovery Treatment For Tuberculosis patients			
		Cases		Controls	
		n	%	n	%
<b>Age (Year)<sup>a</sup></b>					
1	20-30 year	8	16,7	20	58,3
2	31-40 year	40	83,3	28	41,7
	<b>Total</b>	<b>48</b>	<b>100</b>	<b>48</b>	<b>100</b>
<b>Education</b>					
1	primary school	3	6,3	16	33,3
2	senior high school	33	68,8	24	50
3	senior high school	12	25	8	16,7
	<b>Total</b>	<b>48</b>	<b>100</b>	<b>48</b>	<b>100</b>
<b>Work</b>					
1	government employee	12	25,0	9	18,8
2	Housewife	10	20,8	20	41,7
3	entrepreneur	21	43,8	12	25
4	farmers	5	10,4	7	14,5
	<b>Total</b>	<b>48</b>	<b>100</b>	<b>48</b>	<b>100</b>

**Tabel 2 Independent variabel for hypertension**

No	Independent Variable	Hypertension			
		Cases		Controls	
		n	%	n	%
<b>1</b>	<b>Obesitas</b>				
	Obesitas (BMI >25,0)	39	81,3	20	41,7
	Tidak Obesitas (BMI ≤ 25,0)	9	18,8	28	58,3
	<b>Total</b>	<b>48</b>	<b>100</b>	<b>48</b>	<b>100</b>
<b>2</b>	<b>Physical Activity</b>				
	Ringan	37	77,1	23	47,9
	Sedang Berat	11	22,9	25	52,1
	<b>Total</b>	<b>48</b>	<b>100</b>	<b>48</b>	<b>100</b>

**Table 3. Factors associated with hypertension in Puskesmas Teladan by Chi-square**

Variable	Cases n (%)	Controls n (%)	Adjusted OR (95 % CI)	p value
Obesitas				
Obesitas	39 (81,3)	20 (41,7)	6.0 (2.407-15.291)	0.001
Tidak Obesitas	9 (18,8)	28 (58,3)		
Physical Activity				
Ringan	37 (77,1)	23 (47,9)	3,6 (1.517-8.811)	0.006
Sedang-berat	11 (22,9)	25 (52,1)		

## DISCUSSION

Hypertension is a major public health problem that is sweeping across the world both developed and developing countries. Hypertension is not only attacks the elderly but also attack young age, so prevention of hypertension should be done before the age of 40 years. Hypertension increases if lifestyles such as lack of physical activity and unhealthy eating patterns leads women to become obese.

In this study obesity influence the occurrence of hypertension in young adult women in health centers exemplary. Similiar findings reported by Gao Wenlong et al (2016) in China, found that women who are obese actually 37% of them menglami hypertension. Another study by Humadee et al (2016) in Iraq showed that obese women had elevated 1 mmHg of blood pressure for every increase in BMI.

According Triyanto (2014) obesity is a characteristic of the hypertensive population, that the pumping power of the heart and blood circulation of hypertensive patients is higher than that of normal weight. In obesity more tissues require blood, the fat surrounding the heart causes resistance so that the return of the beer blood is less. Physical activity is one of the factors that influence hypertension in young adult women in Puskesmas Teladan. The same discovery by Sawitri dan Wahyuningsih (2017) showed the level physical activity influence on the hypertension. Another study by Jacson et al (2013) the risk of hypertension associated with obesity is strongly affected by increased physical activity

## CONCLUSION

Both elevated BMI and reduced physical activity appear to play an important role in the development of hypertension. The lowest odds of hypertension were in healty women who reported medium or high levels of physical activity, thus reinforcing the importance of maintaining a healty weight and being physical active to reduce the risk of hypertension in young adult

women. Risk of hypertension associated with obesity was however reduced considerably by increased physical activity levels. Physical activity is onemanifestation of healthy behaviors related to health care (Notoadmojo, 2010).

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## THE RELATIONSHIP OF SELF-CARE WITH BLOOD SUGAR LEVELS DIABETES MELITUS PATIENTS IN HERNA MEDAN HOSPITAL

Martaulina Sinaga<sup>1</sup>, Zulkarnaian Batubara<sup>2</sup>

<sup>1</sup>STIKes Mitra Husada Medan  
Email: [martaulinasinaga21@gmail.com](mailto:martaulinasinaga21@gmail.com)

### ABSTRACT

**Background:** Non-communicable diseases that have an impact on the quality of human life one of which is Diabetes Melitus (DM) where the disease is a chronic metabolic disorder characterized by an increase in blood glucose (or blood sugar) levels, which in turn causes serious damage to the heart, blood vessels, eyes, kidneys, and nerves. (WHO, 2019). DM that does not get a good handler can cause an increased risk of acute and chronic complications. So that self-care is needed to reduce the risk of these complications.

**Methods:** This type of observational analytic study with a cross sectional approach to see the relationship of self-care with blood sugar levels in patients with diabetes mellitus means that the measurement of variables is only done by observing at a certain period and one observation is measured at a certain time simultaneously.

**Results:** This study found that the most people with diabetes mellitus were aged  $\geq 60$  years 25 respondents (41.7%) and 38 female respondents (63.3%), high school / vocational education 34 respondents (56.7%), occupations as self-employed (38.3%) Income  $> 2.5$  million (61.7%) and long-term diabetes mellitus  $> 5$  years (60%). Self-care is carried out by patients with Diabetes Mellitus in Herna Hospital the majority of them have self-care that is lacking as many as 38 respondents (66.3%). There is a relationship between lack of self care with abnormal blood sugar levels with a value of  $p = 0,000$ .

**Conclusions:** It is recommended that people with Diabetes Mellitus keep self-care to avoid an increase in blood sugar levels especially to prevent complications. It is recommended to Medan Herna General Hospital to improve health promotion strategies on Diabetes Mellitus Self Care through leaflets, posters so that cases of Diabetes Mellitus with complications can be reduced.

**Keywords:** Self-Care, Blood Sugar Levels

### BACKGROUND

Non-communicable diseases that have an impact on the quality of human life one of which is Diabetes Melitus (DM) where the disease is a chronic metabolic disorder characterized by an increase in blood glucose (or blood sugar) levels, which in turn causes serious damage to the heart, blood vessels, eyes, kidneys, and nerves.<sup>1</sup>

In the past three decades, the prevalence of diabetes has increased dramatically in countries of all income levels, around 422 million people worldwide have diabetes, especially in low and middle income countries, and 1.6 million deaths are directly linked to diabetes each year.

DM that does not get a good handler can cause an increased risk of acute and chronic complications. So that self-care is needed to reduce the risk of these complications. The starting point for living a healthy life with diabetes is early diagnosis - the longer a person lives with undiagnosed and untreated diabetes, the worse the chance of his health results.

A series of cost-effective interventions can improve patient outcomes, regardless of what type of diabetes they might have. These interventions include blood glucose control, through a combination of diet, physical activity and, if necessary, treatment; blood pressure and lipid control to reduce cardiovascular risk and other complications; and routine

screening for damage to the eyes, kidneys and feet, to facilitate early treatment. Overall self care has not shown optimal results. Most patients do not regularly monitor blood sugar, diet and physical exercise and do not comply with medication.<sup>2</sup>

Overall self care has not shown optimal results. Most patients do not regularly monitor blood sugar, diet and physical exercise and do not comply with medication. (Tewahido et al, 2017). Research conducted by Putra, et al (2016) in Rambipuji Subdistrict, Jember District, self-care behavior in DM patients is still low, the average value of self-care behavior of 3.97 days / week of course this has an impact on blood sugar levels and research conducted by Daoud et al (2014) about self-care of DM patients in Jerusalem found 84.8% of patients did not do physical activity, did not do a low-fat diet 64.3% and did not monitor blood sugar levels of 46.5%.<sup>3</sup>

## METHODS

This type of observational analytic study with a cross sectional approach to see the relationship of self care with blood sugar levels in patients with diabetes mellitus.<sup>4</sup>

Data collection methods used for those used are primary data methods through questionnaires covering sociodemographic data (Age, Gender, Education, Occupation, Income, and duration of diabetes mellitus). For data on self-care using the Summary of Diabetes Self Care Activites (SDSCA) questionnaire and secondary data methods were obtained from medical records that included the number of people with Diabetes Mellitus.

**Table 1. Blueprint of Self-Care Activities Questionnaire**

Indicator	Favorable	Unfavorable	Jumlah
Diet	1,2,3,4	5,6	
Olahraga/Activities	7,8		
Foot Care	9,10,11,12		
Medication	13		

Blood Sugar Level checks	14		
Total	12	2	14

## RESULT

### Characteristics of Diabetes Mellitus Patients in Herna Hospital in October-November 2019

The univariate analysis in this study provides a description of the characteristics including age, sex, education, occupation, occupation, marital status, duration of diabetes mellitus. Sociodemographic characteristics describe an individual's self-image of blood glucose levels in Herna Hospital, amounting to 60 people. An overview of the characteristics of patients with Diabetes Mellitus can be seen in Table 2.

**Table 2. Characteristics of Diabetes Mellitus Patients in Herna Hospital October-November 2019**

No	Characteristics	N	%
1	<b>Age</b>		
	40-49 years old	12	20
	50-59 years old	23	38,3
	≥ 60 years old	25	41,7
2	<b>Gender</b>		
	Male	22	36,7
	Girl	38	63,3
3	<b>Education</b>		
	Elementary school	2	3,3
	SLTP	7	11,7
	SLTA/SMK	34	56,7
	D3 / Bachelor degree	17	28,3
4.	<b>Profession</b>		
	Does not work / IRT PNS	12	20
	Labor / Farmer	6	10
	entrepreneur	23	38,3
	Private employees	10	16,7
	Civil servants	9	15
5.	<b>Income</b>		
	≤ 2.5 million	23	38,3
	> 2.5 million	37	61,7
6	<b>The duration Diabetes Mellitus</b>		
	<5 years	24	40
	> 5 years	36	60

This study found that the most people with diabetes mellitus were aged  $\geq 60$  years 25 respondents (41.7%) and 38 female respondents (63.3%), high school / vocational education 34 respondents (56.7%), occupations as self-employed (38.3%) Income  $> 2.5$  million (61.7%) and long-term diabetes mellitus  $> 5$  years (60%).

This result is supported by the statement of Gusti & Erna (2014) which states that DM is often found in elderly people, because as a person ages, the physiological function of a person will decrease insulin secretion, resulting in the ability to control blood glucose less optimal.<sup>4</sup>

According to Irawan (2010) women have a greater chance of suffering from diabetes mellitus, one of which is because of the syndrome of the monthly cycle (premenstrual syndrome), or the occurrence of post-menopause which results in the distribution of body fat becoming more easily accumulated as a result of hormonal processes that occur.<sup>5</sup>

### Self-Care of Patients with Diabetes Mellitus in Herna Hospital

Self-care by patients with diabetes mellitus at Medan Herna Hospital consists of diet, activity/exercise, drug use, foot care and blood sugar level checks, based on the scores obtained by the data as in the table 3.

**Table 3. Self-Care of Diabetes Mellitus Patients in Herna Hospital October-November 2019**

No	Self-Care	N	%
1	Less	38	63,3
2	Well	22	36,7
<b>Total</b>		<b>60</b>	<b>100</b>

Based on Table 3. about self-care carried out by patients with Diabetes Mellitus in Herna Hospital the majority have self-care that is lacking as many as 38 respondents (66.3%).

**Table 4. Blood Sugar Levels of Diabetes Mellitus Patients in Herna Hospital October-November 2019**

No	Kadar Gula Dara	N	%
1	Normal ( $\leq 200$ mg / dl)	25	41,7
2	Abnormal ( $> 200$ mg / dl)	35	58,3
<b>Total</b>		<b>60</b>	<b>100</b>

Based on Table 4. above, it can be seen that blood sugar levels of patients with diabetes mellitus in Herna Hospital experienced abnormal blood sugar levels  $> 200$  mg / dl as many as 35 respondents (58.3%).

### The Relationship between Self-Care and Blood Sugar Levels

The relationship between self-care and blood sugar levels in Medan Herna Hospital can be seen in table 5.

**Table 5. Relationship between Self-Care and Blood Sugar Levels of Diabetes Mellitus Patients in Herna Hospital October-November 2019**

Self-Care	Normal Blood Sugar Levels		Abnormal Blood Sugar Levels		Total	Significant
	n	%	n	%		
Less	8	21,1	30	78,9	38	100
Well	17	77,3	5	22,7	22	100

*p*=0,000

From the table above it can be seen that 30 (78.9%) who have self-care who have less normal blood sugar levels are higher than self-care who have less normal blood sugar level 8 (21.1%). This is a relationship between lack of self care with abnormal blood sugar levels with a value of *p* = 0,000.

### DISCUSSION

This study is in accordance with research conducted by Putri (2013) in the DM Polyclinic of Sumedang District Hospital where the level of self-care is lacking and but research conducted by Linda (2017) the majority of respondents have good self-care and Hidayah (2019) states that sufferers of Diabetes Mellitus in

the working area of the Pucang Sewu Community Health Center, Surabaya has a good self-management status in the category of dietary regulation and medication consumption compliance. This difference can arise due to different factors in each respondent where the age of people with diabetes mellitus in Medan Herna Hospital is a group > 60 years and on average suffer > 5 years this affects the compliance for self-care.<sup>6</sup> According to Tiv (2012) which states the duration of the disease has a negative relationship with adherence: the longer the patient suffers from Diabetes Mellitus, the less likely it is to be compliant with the management of Diabetes Mellitus which involves self-care in terms of food, activity / sports and drugs so that visible care the majority of hospitals in Medan Herna are lacking.<sup>7</sup>

Based on Table 5 it can be seen that blood sugar levels of patients with diabetes mellitus at Herna General Hospital experienced abnormal blood sugar levels > 200 mg / dl as many as 35 respondents (58.3%). This is also consistent with research conducted by Mulyani SN (2016) at the RSUD dr. Zainoel Abidin Banda Aceh which stated that the majority of diabetes mellitus patients had abnormal blood sugar levels (68.7%). From Table 4.4 it can be seen that 30 (78.9%) who have self-care who have less normal blood sugar levels are higher than self-care who have less normal blood sugar level 8 (21.1%). Based on the correlation test using chi square, p value = 0,000 is smaller than 0.05 so  $H_0$  is rejected, which means there is a relationship between self-care that is less with abnormal blood sugar levels.<sup>8</sup>

Abnormal blood sugar levels > 200 mg / dl due to several aspects that are included in the management of self care or management of diabetes mellitus that is not appropriate and therefore dietary regulation (number of calories, type of food and time to eat) must adopt an appropriate diet for sufferers of diabetes mellitus in terms of dietary regulation that serves to suppress the intake of carbohydrates, excess fat so that

glucose levels in the direction can be balanced with the work of the hormone insulin, physical activity / exercise helps control body weight so that glucose in the blood can be burned into energy in the body that causes body cells become more sensitive to insulin, foot care can help maintain healthy feet so as to minimize the risk of foot injuries in patients with diabetes mellitus that develops into diabetic ulcers.<sup>9,10,11</sup>

The content contained in anti-diabetic drugs such as sulvuniurea derivate drug can help the absorption of glucose in the blood and the type of biguanide can inhibit the process of glucose formation. The behavior of routine blood sugar level checking can be used as a benchmark to see the success of diabetes treatment that has been done and can be used as a motivation to keep blood sugar levels in order to remain within normal limits.<sup>12</sup>

## CONCLUSION

After conducting research with the title Self-Care Relationship with Blood Sugar Levels in Diabetes Mellitus Patients in Medan Herna Hospital, it was concluded that there was a relationship between Self-Care and Blood Sugar Levels in Diabetes Mellitus Patients in Herna Hospital Medan with a p value = 0,000. It is recommended that people with Diabetes Mellitus keep self-care to avoid an increase in blood sugar levels especially to prevent complications. It is recommended to Medan Herna General Hospital to improve health promotion strategies on Diabetes Mellitus Self Care through leaflets, posters so that cases of Diabetes Mellitus with complications can be reduced.

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## THE FACTORS WHICH INFLUENCE THE INCIDENCE OF ANEMIA IN TRIMESTER III PREGNANT WOMEN IN THE WORKING AREA OF MEDAN JOHOR PUSKESMAS

Plora Novita Febrina Sinaga<sup>1</sup>, Ester Simanullang<sup>2</sup>

email: [florasinaga289@gmail.com](mailto:florasinaga289@gmail.com)

### ABSTRACT

Anemia is the biggest public health problem in the world, especially for groups of women of reproductive age. Anemia in pregnancy affects women's reproduction by reducing blood supply to the uterus and potentially endangering even the death of the mother and fetus. Anemia in pregnancy is a condition where mothers with haemoglobin (Hb) levels are less than 11 gr/dl in the first and third trimesters while in the second trimester hemoglobin levels are less than 10,5 gr/dl. Based on WHO, the prevalence of anemia in pregnant women in the world is around 40.1% and Riskesdas 2018 data is 48,9%. Anemia affects pregnancy, childbirth and the fetus. The research used observational analytic method with case-control design. It was conducted at Medan Johor Puskesmas, from januari until august, 2019. The population was 108 third trimester pregnant women. 36 of them were in the case group and the other 72 respondents were in the control group (using total sampling technique). The data were analyzed by using univariate analysis, bivariate analysis with chi square test, and multivariate analysis with logistic regression test. The result of the research showed that there was no influence of parity with the incidence of anemia (OR= 0,4 95% CI 0,200-1,084) and emesis gravidarum (OR=4,2 95% CI 1,165-15,362). While age (OR=3,1 95% CI 1,370-7,208), knowledge (OR=4,2 95% CI 1,838-10,043), ANC visit (OR=2,7 95% CI 1,185-6,215), and compliance with consumption of Fe tablets (OR=8,3 95% CI 3,340-20,969), had the influence on the incidence of anemia. Compliance with consumption of Fe tablets was the most dominant risk factor which influenced the incidence of anemia in pregnant mother. It is recommended that pregnant mother to keep nutritional intake especially foods that contain iron and consume Fe tablets of at least 90 tablets during pregnancy at least 4 times in pregnancy.

**Key Words: Anemia Pregnancy, Risk Factor**

### INTRODUCTION

The direct cause of obstetric maternal death is maternal death related to pregnancy complications, childbirth and nifas such as hypertension in pregnancy (32%)%, complications of puerperium (31%)%, postpartum bleeding (20%), abortus (4%) and the old partus (1%). Maternal death caused by indirect causes is maternal death caused by diseases such as anemia, malaria, syphilis, HIV, AIDS, and others (Ministry of Health, 2015).

Anemia is the largest public health problem in the world especially for the reproductive age women's group (WUS). Anemia in women of childbearing age (WUS) can lead to fatigue, weak body

and decreased capacity/productivity of work. Anemia in pregnancy is associated with physiological changes that occur during the pregnancy process, fetal growth and development, as well as the condition of the mother before pregnancy. During pregnancy, the volume of red blood and plasma increases along with increased cardiac mass. Blood needs increased by 30-33 percent. Increased blood needs lead to the tendency of pregnant women to develop anemia. Anemia in pregnancy is a condition in which the mother with hemoglobin (Hb) levels is less than 11 gr/dl in the first and third trimesters while in the second trimester hemoglobin levels are less than 10.5 gr/dl. Pregnancy anemia is called "potential danger to mother and

*child*". The increase in plasma volume occurs in greater proportions when compared to the increase in erythrocytes resulting in a decrease in hemoglobin concentration (Hb) due to hemodilution (Cunningham et al, 2013).

World Health Organization (WHO, 2016), reported that the prevalence of anemia in pregnant women in the world is about 40.1 percent. That percentage increased from 39.8 percent in 2015 and 39.6 percent in 2014 (WHO, 2016). The prevalence of anemia in pregnant women is estimated in Asia at 48.2 percent, Africa 57.1 percent, the Americas 24.1 percent and Europe 25.1 percent (Astria, 2017). Based on data from Basic Health Research (Riskesdas, 2018), the prevalence of anemia in pregnant women in Indonesia is 48.9 percent.

In 2017, pregnant women with Anemia with Hb levels of less than 10 gr/dl were 48.3 percent. Astria (2017) research at Tanjung Agung Health Center, Baturaja, pregnant women who are anaemic as much as 42.6 percent. The incidence of anemia in pregnancy can be influenced by several factors such as an ideal maternity age, low education, occupation, parity, gestational age, pregnancy distance, adherence to fe tablet consumption, economic status, ANC visits, disease, emesis gravidarum, low knowledge of iron, nutritional status and unbalanced diet. Pregnancy at the age of less than 20 years is still a physical growth process so that it requires more nutrients, if the necessary nutrients are not met there will be competition of nutrients between the mother and fetus then it will be at risk of anemia during pregnancy. In mothers over the age of 35 years there has been a decline and decrease in endurance as well as various diseases that often occur such as easily exposed infections during pregnancy so that the disease and infection interfere with the absorption of nutrients, especially iron in the body. Mothers who often give birth and in subsequent pregnancies pay less attention to good nutritional intake in pregnancy, tend to be at risk of

anemia. This is because in pregnancy nutrition will be divided for the mother and for the fetus conceived, in addition the mother's body has not had time to meet the needs of iron that comes out through the blood in the labor process with a large number of children, while the mother is pregnant again and requires a lot of iron (Manuaba, 2010).

Pregnant women who are not routine in conducting ANC visits are at risk of complications/constituents in pregnancy, one of which is the incidence of anemia because the incidence of anemia cannot be detected early due to unsuitable screening visits. An ANC visit is a preventive effort of pregnant women to produce a healthy pregnancy through physical examination, supplement administration and health counseling of pregnant women. Pregnant women experience blood dilution so it requires additional iron to increase the number of red blood cells. Fe tablets are consumed at least 90 tablets during pregnancy. Fe tablet administration in Indonesia in 2017 has a target of 90 percent, but reaches in Indonesia of 80.81 percent, North Sumatra 78.02 where fe administration in North Sumatra is more than or equal to 90 tablets of 7.94 percent and less than 90 tablets by 52.11. Although the government has done an anemia prevention program in pregnant women namely by giving 90 Fe tablets to pregnant women during the pregnancy period with the aim of lowering the rate of anemia of pregnant women, but the incidence of anemia in pregnant women is still high.

The impact of anemia on women's reproduction is to reduce the blood supply to the uterus so that during pregnancy it has an impact on the mother and fetus. This leads to morbidity and maternal mortality as well as significantly higher perinatal mortality. The impact of maternal b agi can result in bleeding, infection, abortus, premature labor, and early ruptured amniotics that can end in death (Manuaba, 2010). The impact on the fetus can lead to IUFD, congenital abnormalities, premature,

BBLR and low IQ.. The impact of anemia during postpartum results in the onset of sio subinvolusio, the need for difficulty to heal, easy febris puerpuralis anemia during nifas and low breast milk production. Research conducted at Achmad Darwis Hospital by Syifaurrehman, Yusrawati and Zulkarnain (2014) on the relationship of anemia with BBLR in aterm pregnancy, there were babies born with BBLR as many as 24 babies from anaemic mothers (32.9%). This indicates that there is an anemia relationship in the BBLR event with a *P-Value* equal to 0.047 smaller than 0.05. Anemia in pregnancy results in impaired transfer of hemoglobin to the fetus through the placenta so that the baby is born with BBLR.

The application of service standards in pregnancy, especially the management of anemia in pregnancy. There is a minimum standard of giving Fe tablets as much as 90 tablets during pregnancy and temuwicara i.e. through counseling for pregnant women including nutritional counseling related to anemia in pregnancy. As a result of interviews conducted with health officials at Puskesmas Medan Johor about 30 percent of pregnant women have anemia even though the prevention program and pregnancy examination has been carried out. Every pregnant woman who visits the health center for the first time is checked for Hb and every pregnant woman who is either anaemic or not anaemic is given Fe tablets. Fe tablets are given three times, which is a minimum of 30 items per visit.

Based on the above background, the authors are interested in raising issues in this study related to age factors, parity, ANC visits, compliance with fe tablet consumption, emesis gravidarum and maternal knowledge of the incidence of anemia in third trimester pregnant women in the working area of Puskesmas Medan Johor Year 2019.

## MATERIALS AND METHODS

### Types of Research

This type of research is observational analytics with case control research design. The natural d casegroup of this study was pregnant women with anemia and the control group was pregnant women who were not anaemic in the third trimester.

### Population and Samples

The case population in this study was pregnant women who experienced anemia in the working area of Puskesmas Medan Johor in January to May which was 36 cases of pregnant women trimester III anemia and the control population in this study was pregnant women who were not anemia trimester III in the working area of Puskesmas Medan Johor in January to May 2019 as many as 92 people.

A large sample of 36 cases of pregnant women with III trimester anemia. The study used a 1:2 control case comparison without matching then a sample of 36 cases and a control sample of 72 people. A total of 108 pregnant women were sampled.

Sampling with total sampling using purposive sampling technique using the following criteria: (a) Inclusion criteria are domiciled in the working area of Puskesmas Medan, pregnant women who get Fe, pregnant women who have the same economic status that is middle and, pregnant women who have low education (not school, Elementary / Junior High School/High, pregnant women who have normal nutritional status (LILA more than 23.5 cm), pregnant women work as housewives and are willing to be respondents, (b) Exclusion criteria. Pregnant women who suffer from certain diseases that inhibit the absorption of iron and are not willing to be respondents.

### Data Collection Methods

The primary data collected related to the characteristics of pregnant women,



pregnancy history, ANC visits, emesis gravidarum and compliance of consuming Fe tablets and hb examination of respondents for control samples in iii trimester pregnant women. Secondary research data is obtained from the book of visits of pregnant women, reports and profiles of Medan Johor health centers.

### Data Analysis Methods

Analysts are univariat done to get an idea of the frequency distribution of respondents in case groups and controls. The data is presented in the form of a frequency distribution table. Bivariate analysis using Chi Square ( $X^2$ ). The results of the bivariate test analysis if *obtained a p value of less than 0.05* then the calculation result is statistically meaningful, if the *p value* is more than or equal to 0.05 then the statistical calculation results are meaningless. This multivariate analysis can be done using the logistic *regresi test which is* if the bivariate test result is obtained a *p value of less than 0.25*.

## RESULT

### Distribution of Respondents Based on Risk Factors.

In the case group the majority of pregnant women had a high risk of less than 20 years and over 35 years of age as many as 22 people (61.1%). While in the control group the majority of pregnant women had a low risk of 20-35 years of age of 48 people (66.7%). Based on parity variables showed that pregnant women in the majority of cases had a low risk of parity of less than three children as many as 25 people (69.4%), while in the majority control group pregnant women had a low risk parity of 37 people (51.4%).

Based on knowledge variables shows the majority of pregnant women in the case group had less knowledge as many as 23 people (63.9%) while in the control group the majority of pregnant women had good knowledge of 51 people (70.8%). Based on an ANC visit variable, the majority of pregnant women in the ANC

visited less than 19 visits (52.8%), while in the control group the majority of ANC visits were sufficient or more than 4 visits to 51 people (70.8%). Based on fe tablet consumption compliance variables showed the majority of pregnant women in the non-compliant case group consumed Fe tablets by 27 people (75.0%) while in the control group the majority of pregnant women adhered to the consumption of Fe tablets by 53 people (73.6%). Based on the variable emesis gravidarum showed the majority of pregnant women in the group of cases experienced emesis gravidarum as many as 33 people (91.7%), while in the majority control group of pregnant women experienced emesis gravidarum as many as 52 people (72.2%).

Bivariate analysis. Based on the results of the study of age variables against the incidence of anemia in pregnant women obtained statistical test results with a value of  $p = 0.006$  meaning that there is a significant influence between age on the incidence of anemia in pregnant women in the Working Area of Puskesmas Medan Johor in 2019. The OR score of 3.1 (95%CI =1,370-7,208) means that pregnant women in the age group are less than 20 years old and over 35 years of age are at 3.1 times greater risk of anemia than pregnant women in the 20-35 age group. Based on the results of the study variable parity to the incidence of anemia in pregnant women obtained statistical test results with a value of  $p = 0,074$  means that there is no significant influence between parity to the incidence of anemia in pregnant women in the Working Area of Johor Health Center in 2019 and the value of OR obtained 0.4 (95&CI = 0.200-1.084) meaning that parity has a protective effect or reduces the risk of anemia in pregnant women.

Based on the results of the study variable knowledge on the incidence of anemia in pregnant women obtained statistical test results with a value of  $p = 0.001$  means that there is a significant influence between knowledge on the incidence of anemia in pregnant women in

the Working Area of Puskesmas Medan Johor in 2019. The OR score of 4.2 (95%CI =1,838-10,043) means that pregnant women with knowledge are 4.2 times more at risk of anemia than pregnant women with good knowledge. Based on the results of a variable study of ANC visits on the incidence of anemia in pregnant women obtained statistical test results with a value of  $p = 0.017$  means that there is a significant influence between ANC visits on the incidence of anemia in pregnant women in the Working Area of Puskesmas Medan Johor in 2019. The OR score of 2.7 (95%CI =1,185-6,215) means that pregnant women who visit an ANC less than 4 times during pregnancy are at 2.7 times greater risk of anemia than pregnant women who visit an ANC 4 times or more.

Based on the results of the study variable adherence of Fe tablets to the incidence of anemia in pregnant women obtained statistical test results with a value of  $p = 0.000$  means that there is a significant influence between the adherence of fe tablet consumption to the incidence of anemia in pregnant women in the Working Area of Puskesmas Medan Johor in 2019. The OR value was obtained by 8.3 (95%CI =3,340-20,969 meaning that pregnant women who did not comply with fe tablets were at 8.3 times greater risk of anemia than pregnant women who dutifully took Fe tablets. Based on the results of the study variable emesis gravidarum on the incidence of anemia in pregnant women obtained statistical test results with a value of  $p = 0.020$  means that there is a significant influence between emesis gravidarum to the incidence of anemia in pregnant women in the Working Area of Medan Johor Health Center in 2019. The OR value of 4.2 (95%CI =1,165-15,362) means that pregnant women who experience emesis gravidarum are 4.2 times more at risk of anemia than pregnant women who do not experience emesis gravidarum.

Multivariate. Based on the results of a double logistic regression analysis shows

that all variables have significant age variables ( $p = 0.009 < 0.05$ ; OR = 4,400 95%CI 1,454-13,319), knowledge variable ( $p = 0.001 < 0.05$ ; OR = 6,466 95%CI 2,093-19,973), visit variable ANC ( $p = 0.005 < 0.05$ ; OR = 5,470 95%CI 1,687-17,738), and fe tablet consumption compliance variables ( $p = 0.000 < 0.05$ ; OR = 13,607 95%CI 4,173-44,368), is an effect on the incidence of anemia in pregnant women. Thus the most dominant variable affecting the incidence of anemia in pregnant women after a logistical regression test in the multivariate analysis is compliance with fe tablet consumption ( $p = 0.000$  ;OR= 13,607 95%CI 4,173-44,368) which means that pregnant women who do not comply with fe tablet consumption are at 13.6 times greater risk of anemia than pregnant women who adhere to fe tablet consumption.

Table 1 *Frequency Distribution Based on Risk Factors of Age, Parity, Knowledge, ANC Visits, Fe Tablet Consumption Compliance and Emesis Gravidarum in Medan Johor Puskesmas Working Area 2019*

Characteristics of Respondents	Respondent Status			
	Cas	%	Control	%
<b>Age</b>				
Low risk 20-35 years	14	38,	48	66,7
High risk < 20 years and > 35 years	22	36	24	33,3
Total		100	72	100
<b>Parity</b>				
Low risk < 3 times	25	69,	37	51,4
High risk ≥ 3 times	11	36	35	48,6
Total		100	72	100
<b>Knowledge</b>				
Good	13	36,	51	70,8
Less	23	36	21	29,2
Total		100	72	100
<b>ANC Visit</b>				
Only ≥ 4 visits (1xT MI, 1xTM II, 2xTM III)	17	47,	51	70,8
	19	52,	21	29,2

Characteristics of Respondents	Respondent Status			
	Cas	%	Control	%
Less < 4 visits (1xTM I, 1xTM II, 2xTM III)	36		72	100
Total		100		
Fe Tablet Consumption	9	25,	53	73,6
Compliance	27		19	26,4
Obedient	36	75,	72	100
Non-compliant				
Total		100		
Emesis Gravidarum	3	8,3	20	27,8
No Emesis	33	91,	52	72,2
Emesis	36		72	100
Total		100		

Table 2 *Cross Tabulation influences Age, Parity, Knowledge, ANC Visits, Fe Tablet Consumption Compliance and Emesis Gravidarum in Medan Johor Puskesmas Working Area 2019*

Variable	Incidence of Anemia				OR (95% CI)	p value
	Case	Control				
Age						
Low risk 20-35 years	14	38,9%	48	66,7%	3,1	0,006
High risk < 20 years and > 35	22	61,1%	24	33,3%	1,370-7,208	
Parity						
Low risk < 3 times	25	69,4	37	51,4	0,4	0,074
High risk ≥ 3 times	11	30,6	35	48,6	0,200-1,084	
Knowledge					4,2	
Good	13	36,1	51	70,8	1,838-	0,001
Less	23	63,9	21	29,2	10,043	
ANC Visit						
Booked ≥ 4 visits (1xTM I, 1xTM II, 2xTM III)	17	47,2%	51	70,8%	2,7	0,017
Less < 4 visits (1xTM I, 1xTM II, 2xTM III)	19	52,8%	21	29,2%	1,185-6,215	
Fe Tablet Consumption						
Compliance						
Obedient	9	25,0 %	53	73,6%	8,3	0,000
Non-compliant	27	75,0 %	19	26,4%	3,340-20,969	

Variable	Incidence of Anemia				OR	p
Emesis Gravidarum						
No emesis	3	8,3	20	27,8	4,2	0,020
Emesis	33	91,7	52	72,2	1,165-15,362	

Table 3 *Second Stage Multiple Logistics Regression Model against Anemia Incidence in Pregnant Women in Medan Johor Puskesmas Working Area 2019*

Variable	B	Q	Exp B	95% CI	
				Lower	Upper
Age	1,482	0,009	4,400	1,454	13,319
Knowledge	1,867	0,001	6,466	2,093	19,973
ANC Visit	1,699	0,005	5,470	1,687	17,738
Fe tablet consumption	2,611	0,000	13,607	4,173	44,368
Constant	-4,256	0,000	0,014		

## DISCUSSION

The pregnancy of the younger mother is less than 20 years old there is still a physical growth process so that it requires more nutrients, if the necessary nutrients are not met there will be competition of nutrients between the mother and fetus then it will be at risk of anemia in pregnancy. In mothers over the age of 35 years there has been a decline and decrease in endurance as well as various diseases that often occur such as easily exposed infections during pregnancy so that the disease and infection interfere with the absorption of nutrients, especially iron in the body. Mothers who often give birth and in subsequent pregnancies pay less attention to good nutritional intake in pregnancy, tend to be at risk of anemia. This is because in pregnancy nutrition will be divided for the mother and for the fetus that is conceived, in addition the mother's body has not had time to meet the needs of iron that comes out through the blood in the labor process with a large number of children, while the mother is pregnant again and requires a lot of iron.

Knowledge is the cognitive domain of the actions of pregnant women in maintaining or not maintaining their health and pregnancy including the protection of the onlemic. A good year will impact the mother's mindset to behave and act positively towards her health and vice versa

(Walyani, 2017). Making regular antenatal visits is one of the embodiment of good and correct antenatal service (quality), because have qualified continuously. Each pregnant woman is recommended to take iron tablets during her pregnancy of at least 90 tablets. The source of iron from foodstuffs does not meet the needs of pregnant women, because iron is needed not only for the fulfillment of maternal nutrition but also for fetal growth and development. Iron tablets that have been owned by pregnant women must be consumed regularly and regularly as a prevention and treatment of the occurrence of anemia during pregnancy. Non-compliance raises the risk of mothers experiencing anemia (Tarwoto & Wasnidar, 2017).

Many pregnant women experience emesis even hyperemesis in pregnancy in the first trimester pregnancy, but when entering the gestational age of the second trimester even the third trimester, in general the mother's appetite increases so that it can meet a good diet and nutrients are met for the needs of fetal growth and development and dominantly have adherence to taking Fe tablets so that the mother is less likely to experience anemia in her pregnancy.

## CONCLUSION

Based on the results of research and discussion that from six variables there are four dominant research variables affecting the incidence of anemia in pregnant women trimester III in the Working Area of Puskesmas Medan Johor Year 2019 namely *age variable* ( $p$  value 0.006), *knowledge* ( $p$ value 0,000), *an ANC visit* ( $p$ value 0.007) and *compliance with the consumption of Fe tablets* ( $p$ value 0,000). At variable compliance fe tablets with a value of OR= 13,607 means that pregnant women who do not comply and regularly consume Fe tablets are routinely at 13 times greater risk of anemia than dutiful pregnant women who regularly consume Fe.

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