

Analysis of Kegel Gymnastics and Lavender Aromatherapy on Perineal Wound Pain Intensity in Post Partum Mothers, Bujel Village, Mojoroto District, Kediri City

Desi Rahmawati*, Desi Setiyawati

Loceret Public Health Center, Nganjuk, East Java. Indonesia

*Corresponden Author: Desi Rahmawati (rahmawatidesy257@gmail.com)

ARTICLE INFO

Keywords:

Kegel Gymnastics,
Lavender
Aromatherapy,
Perineal Wound Pain

ABSTRACT

Background: A number of the efforts that have been done for reduce pain in mother postpartum with perineal laceration can done by pharmacological and non-pharmacological. However use by pharmacology often cause effect side and sometimes no own strength effects. This study aimed to analyze the effect of Kegel exercises and lavender aromatherapy on the intensity of perineal wound pain in postpartum mothers.

Methods: This research is a pre-experimental. The population in this study were all postpartum mothers at PMB Novitasari, Amd., Keb as many as 39 postpartum mothers for the period October 2019-31 January 2020. The sample in this study was all postpartum mothers at PMB Novitasari, Amd., Keb with simple sampling technique. Random Sampling. The test used is Chi-Square.

Results: results showed that most (63.9%) of the respondents had pain intensity in the severe category before being given Kegel exercises and lavender aromatherapy, namely 23 people and almost half (47.2%) of the respondents had moderate pain intensity after being given Kegel exercises and lavender aromatherapy, namely 17 people.

Conclusion: effect of giving Kegel exercises and lavender aromatherapy on the intensity of pain in pregnant women, while in this study there was a negative rank of 27 which means pain intensity. after being given kegel exercises and lavender aromatherapy decreased compared to pain intensity before being given kegel exercises and lavender aromatherapy.

I. Introduction

WHO data has an average standard Perineal wound pain intensity in a country is about 5 0 - 6 5%. at home sick government average 7 1% while at home sick private can more from 8 0%. Years 20 15 - 20 16 number incident perineal wound pain in the UK is 7 2.5% moderate year 20 17-2018 number incident Perineal wound pain intensity in canada around 75 % and 78.6 % (Dewi, 2019). The results of interviews on December 20 to 10 postpartum mothers obtained data only about 20% of postpartum mothers feel mild pain with a rate of about 2 on the NRS for perineal injuries while the rest experience moderate and severe pain. And only 3 of them took part in gymnastics but none of them had used lavender aromatherapy yet.

Factors that cause the occurrence of perineal rupture, among other factors: Mother consist from parity, distance birth, way who does not right, and age mother. Factor fetus consist from baby weight, new born and presentation. Factor labor vaginal consist from extraction forceps, vacuum, instrument trauma and episiotomy, then factor helper labor that is leader childbirth that doesn't right (Nasution N, 2011).

A number of the efforts that have been done for reduce pain in mother postpartum with perineal laceration can done by pharmacological and non- pharmacological. However use by pharmacology often cause effect side and sometimes no own strength effects. Aroma therapy used as one alternative handling painful nonpharmacologic. Moment this frequent n handling used for reduce pain that is therapy complementary aroma therapy with oil essential lavender, because lavender has traits anticonvulsant, anxiolytic, and is calming, so the mother will feel relaxed and focus on the aroma so that it will reduce the pain that is felt (Koensoemardiyah, 2014).

According to Wulandari dan Handayani (2011), Kegel exercises have a number of benefit Among others make stitching more docked, speed up healing, relieve hemorrhoids, increase control on urine

II. METHODS

Research design is all the processes needed in planning and implementing research (Hidayat, 2010). The quantitative research method in this study used a quasi-experimental comparative study with a two-group pre-test post- t t approach, namely giving an initial test before treatment and after being given treatment. The population in this study were all postpartum mothers at PMB Novitasari, Amd., Keb as many as 39 postpartum mothers for the period October 2019-31 January 2020. The samples in this study were all postpartum mothers at PMB Novitasari, Amd., Keb. In this study the sampling technique used is Simple Random Sampling. The research instruments were SOP and NRS. The method of data collection is as follows: (Managing a research permit application from the Midwifery DIV Study Program IIK STRADA Indonesia which is submitted to PMB Novitasari, Amd., Keb, Delivering a cover letter to the research site, After obtaining permission from the educational institution and the midwife, the researcher meets the respondent , Researchers approach respondents and their families, Researchers ask for their willingness to do research, Researchers provide informed consent to be signed by respondents, Divide respondents into 2 groups, Give pretest questionnaires related to research and Explain the time and method of filling out questionnaires, Do Kegel exercises in group 1 and give lavender aroma therapy to group 2, Give a post-test questionnaire, After the questionnaire is completed then it is collected for data processing After all the data is collected then data processing and analysis is carried out. Data analysis used Wilcoxon test Because it is a comparative analytics/ and ordinal-ordinal data scale.

III. RESULTS

Table 1. Frequency distribution Pain Intensity before being given Kegel exercises to pregnant women at PMB Novitasari, Amd., Keb, March 02-15, 2020

No	Pre Gymnastics	F frequency	Percentage (%)
1	No Pain (Scale 0)	0	0
2	Mild Pain (Scale 1-3)	3	16.7
3	Moderate Pain (Scale 4-6)	3	16.7
4	Severe Pain (Scale 7-9)	12	66.7
5	Very Severe Pain (Scale 10)	0	0
Total		18	100

Frequency distribution Pain intensity after being given Kegel exercises to pregnant women at PMB Novitasari, Amd., Keb 02-15 March 2020

No	Post gymnastics kegel	F frequency	Percentage (%)
1	No Pain (Scale 0)	2	11.1
2	Mild Pain (Scale 1-3)	3	16.7
3	Moderate Pain (Scale 4-6)	8	44.4
4	Severe Pain (Scale 7-9)	5	27.8
5	Very Severe Pain (Scale 10)	0	0
Total		18	100

Table 3. Distribution frequency Pain Intensity before being given lavender aromatherapy to pregnant women at PMB Novitasari, Amd., Keb, March 02-15, 2020

No	Pre aromatherapy lavender	F frequency	Percentage (%)
1	No Pain (Scale 0)	0	0
2	Mild Pain (Scale 1-3)	1	5.6
3	Moderate Pain (Scale 4-6)	6	33.3
4	Severe Pain (Scale 7-9)	11	61.1
5	Very Severe Pain (Scale 10)	0	0
Total		18	100

Table 4. Distribution frequency Pain Intensity after being given lavender aromatherapy to pregnant women at PMB Novitasari, Amd., Keb date 02-15 March 2020

No	Aroma post lavender therapy	F frequency	Percentage (%)
1	No Pain (Scale 0)	0	0
2	Mild Pain (Scale 1-3)	8	44.4
3	Moderate Pain (Scale 4-6)	9	50
4	Severe Pain (Scale 7-9)	1	5.6
5	Very Severe Pain (Scale 10)	0	0
Total		18	100

Table 5. Differences in pain levels between giving Kegel exercises and lavender aroma therapy to pregnant women at PMB Novitasari, Amd., Keb, March 02-15, 2020

Ranks					
Group		N	Mean Rank	Sum Ranks	of asymp. Sig (2-tailed)
Pain level	Kegels	18	11.29	5.50	,001
	Lavender scent	18	13.71	4.50	,000
	Total	36			

According to table 2 shows that the p-value is $0.000 < 0.05$, which means that there is a difference in pain levels between the administration of Kegel exercises and lavender aromatherapy for pregnant women at PMB Novitasari, Amd., Keb. The average value of pain level in respondents with Kegel exercises is (11.29) while the pain level in respondents with lavender aromatherapy has an average value (13.71) indicating that giving Kegel exercises is more effective than giving lavender aromatherapy for reduce pain levels in pregnant women at PMB Novitasari, Amd.,Keb

IV. DISCUSSION

Pain Intensity in Pregnant Women before being given Kegel exercises at PMB Novitasari, Amd., Keb 2020

Characteristics of respondents at PMB Novitasari, Amd., Keb 2020 based on pain intensity before being given kegel exercises to pregnant women, it was found that most (66.7%) of respondents had pain intensity in the severe category before being given kegel exercises, namely 12 people.

If Kegel exercises are not given, there will be an increase in muscle tone and function of the pelvic floor in pregnant and postpartum patients who are unable to control urination (usually stress urinary incontinence). This can occur as a result of holding the weight of the fetus in the womb, and due to the pushing of the baby's head during the vaginal birth process. Damage to the pelvic floor muscles can lead to prolapse with severity depending on which part of the pubococcygeus muscle is weaker. Then it can reduce the quality of sexual intercourse when the woman reaches the orgasm phase because the pubococcygeus muscle cannot contract optimally (Pangkahila, 2012).

Based on the data above, the researcher can conclude that the intensity of pain in pregnant women before being given Kegel exercises can be influenced by the age of the mother, mothers who are >35 years old will have a greater level of pain. This is in accordance with the research journal Wasis Pujiati et al. (2019) with the title "Yannga Aromatherapy versus Lavender Against Post Sectio Caesarean Pain" which states that mothers aged > 35 years have higher levels of pain when compared to those aged < 35 years. Older mothers have a slower metabolism when compared to younger mothers, so the level of pain they feel will also be different. Individuals will perceive pain in different ways, related to how a person experiences pain and how to deal with it. Pain Physiology Pain receptors (nociceptors) are organs of the body that function to receive painful stimuli. Organs that act as pain receptors are free nerve endings in the skin that respond only to strong, potentially damaging stimuli (Tamsuri, 2007).

Pain Intensity in Pregnant Women after being given Kegel exercises at PMB Novitasari, Amd., Keb 2020

Characteristics respondents at PMB Novitasari, Amd., Keb 2020 based on Pain Intensity after being given Kegel exercises to pregnant women, it was found that data almost half (44.4%) of respondent have Pain Intensity in the moderate category after being given Kegel exercises, namely: 8 people. Pain is a sensation subjective taste no usual comfort _ related with damage network actual and potential. Pain could character protective, that is cause individual stay away something noxious stimuli or no To do function, as in pain chronic. Pain feel if receptors painful Specific activated. Pain character subjective and objective based on length (duration), speed sensation, location (Corwin, 2014). Intensity painful could determined with various way. one of them is ask to patient about painful or discomfort. Another method is ask to patient for decipher how how bad pain that brings inconveniences with use scale pain 0-10 which means 0 = no pain and 10 = very severe pain (Judha et al, 2012).

Kegel exercises are one series practice for build return strength muscle base hip. Happening weakness muscle base pelvis in women post parturition can trained for strengthened return with Kegel method. Method the introduced by dr. Arnold Kegel in 1945 an obstetrician and gynecologist from California. Muscle training base pelvis should started as soon as possible possible after labor for prevent loss control cortical in post - perineal muscles normal parturition or vaginally (Pangkahila, 20 12).

In the results of the research on the level of pain after being given Kegel exercises, the researcher concluded that the decrease in pain in patients was due to the administration of Kegel exercises and lavender aromatherapy. This is in accordance with the research journal Wasis Pujiati, et al (2019) with the title "Aromatherapy". Memories Compared to Lavender Against Post Sectio Pain Caesaria" who stated that the gift aroma therapy lever is actions that can support response and perception from pain felt by the patient, the womb powerful lavender aromatherapy lower pain experienced by the patient. Pain could influenced by parity, age, anxiety, support family, culture and environment as well as experience labor previously (Judha, 2012). one non - pharmacological therapy used in lower intensity painful is aromatherapy. Aromatherapy is one handling pain that can used for relaxation . Aromatherapy used in research this isoil lavender. Lavender oil is one of the most common aromatherapy used in reduce pain and relaxation. Lavender oil is very fast absorbed by the skin, so the effect is very fast is known

Pain Intensity in Pregnant Women before being given lavender aromatherapy at PMB Novitasari, Amd., Keb 2020

Characteristics respondents at PMB Novitasari, Amd., Keb 2020 based on Pain intensity before being given lavender aromatherapy on pregnant women, it was found that the data most (61.1%) of respondent had Pain Intensity in the severe category before being given lavender aromatherapy, namely 11 people. Shape oil essential aroma therapy is extract plant made. Becomes type oil blended essentials with water, then burned. Oil essential used with method mix 3-4 drops of oil essential to in water about 20 ml. the water placed in a ready cup for heated. Warmup Cup the use candles and can with light

Based on the data above, the researcher can conclude that the intensity of pain in pregnant women before being given lavender aromatherapy can be influenced by the age of the mother, mothers who are >35 years old will have a greater level of pain. This is in accordance with the research journal Wasis Pujiati, et al (2019) with the title "Aromatherapy". Memories Compared to Lavender Against Post Sectio Pain Caesaria" which states that the mother is > 35 years old own level increasing pain big when compared to with age < 35 years. more mom old have more metabolism slow when compared with old mother more young, so level the pain you feel will also different. Individual will perceive painful with different ways, related with how experience somebody to pain and how overcome it. through Pain Physiology Pain receptors (nociceptors) are organs that function for accept excitatory pain. Body organs that play a role as receptors painful is end nerves free in responsive skin only to strong stimuli which potential damaging (Tamsuri, 2007)

Pain Intensity in Pregnant Women after being given lavender aromatherapy at PMB Novitasari, Amd., Keb 2020

Characteristics respondents at PMB Novitasari, Amd., Keb 2020 based on Pain Intensity after being given lavender aromatherapy to pregnant women, it was found that half (50%) of respondent have Pain Intensity in the moderate category after being given lavender aromatherapy, namely 17 people.

Intensity painful could determined with various way. one of them is ask to patient about painful or discomfort. Another method is ask to patient for decipher how how bad pain that brings inconveniences with use scale pain 0-10 which means 0 = no pain and 10 = very severe pain (Judha et al, 2012).

Aromatherapy is a therapy or treatment by using smells from plants, flowers, trees that smell good and smell good. Essential oils are used to maintain and promote health and well-being. Often combined for a soothing, healing touch with the therapeutic properties of essential oils (Craig Hospital, 2012)

In the results of the research on the level of pain after being given lavender aromatherapy, the researchers concluded that the decrease in pain in patients was due to the administration of Kegel exercises and lavender aromatherapy. This is in accordance with the research journal Wasis Pujiati, et al (2019) with the title "Aromatherapy". Memories Compared to Lavender Against Post Sectio Pain Caesaria" who stated that the gift aroma therapy lever is actions that can support response and perception from pain felt by the patient, the womb powerful lavender aromatherapy lower pain experienced by the patient. Pain could influenced by parity, age, anxiety, support family, culture and environment as well as experience labor previously (Judha , 2012). one non - pharmacological therapy used in lower intensity painful is aromatherapy. Aromatherapy is one handling pain that can used for relaxation. Aromatherapy used in research this isoil lavender. Lavender oil is one of the most common aromatherapy used in reduce pain and relaxation. Lavender oil is very fast absorbed by the skin, so the effect is very fast is known

The Effect of Kegel Exercises on Pain Intensity in Pregnant Women at PMB Novitasari, Amd., Keb 2020

Cross - tabulation of pretest and posttest pain intensity Kegel exercises for pregnant women at PMB Novitasari, Amd., Keb show almost half (38.9%) of respondents before being given Kegel

exercises had severe pain intensity and after being given Kegel exercises had pain intensity in the moderate category, namely 7 people

Based on the Wilcoxon test, it was obtained results that p-value of $0.001 < (0.05)$ which means there is the effect of giving kegel exercises on pain intensity in pregnant women, while in study this there is The negative rank is 11 which means Pain Intensity after given Kegel exercises decrease compared with Pain Intensity before given Kegel exercise

The research journal Zulfa Samiun (2015) found the results in the case of Mrs. R with perineal rupture after done evaluation for 3 days, client say painful reduced , client say already can activity, client looks calm and comfortable , client show number 2 on the scale pain, vital signs, pressure blood : 110/70 mmHg, pulse: 74 times per minute, respiration: 24 times per minute , temperature : 38.5 0C. Whereas goals and criteria desired result achieved based on theory is capable control pain (know reason pain , can use technique non-pharmacology for reduce pain , looking for help), report that painful reduce with use management pain , can recognize pain (scale, intensity, frequency and signs) pain), says a sense of comfort after painful reduced. With thus diagnosis nursing painful I related with damage network due to trauma to the perineum during labor and birth resolved

Effect of giving lavender aromatherapy to pain intensity in pregnant women at PMB Novitasari, Amd.,Keb 2020

Cross - tabulation of pretest and posttest pain intensity of lavender aromatherapy in pregnant women at PMB Novitasari, Amd., Keb show half (50 %) respondents before being given lavender aroma therapy had severe pain intensity and after being given lavender aroma therapy had pain intensity in the moderate category, namely 9 people

Based on the Wilcoxon test, it was obtained results that p-value of $0.000 < (0.05)$ which means there is the effect of giving lavender aroma therapy on pain intensity in pregnant women, while in study this there is The negative rank is 16 which means Pain Intensity after given lavender aroma therapy decreased compared with Pain Intensity before given lavender aromatherapy

The research journal Argi Virgona (2013) shows the results of the study showing drop mean from intensity painful easter gift Lavender aromatherapy, which is 2.09 to 6.11. The smell that is stimulant very strong memory, spontaneous give signs emotion caused because uniqueness from system related smell direct with system limbic and emotion us (Romantyo & Harini, 2011) System limbic is part from linked brain with atmosphere heart, emotion, memory, and learning us. All smell that reaches system limbic own influence straight to the mood liver us (Sharma, 2009).

Differences in giving Kegel exercises and lavender aromatherapy to pain intensity in pregnant women at PMB Novitasari, Amd., Keb 2020

Differences in giving Kegel exercises and lavender aromatherapy on pain intensity in pregnant women at PMB Novitasari, Amd., Keb. show that p-value of $0.000 < (0.05)$, which means there is Difference level painful Among kegel exercise with Lavender aroma therapy for mom pregnant at PMB Novitasari, Amd., Keb. The average value of the level of pain in respondents with Kegel exercises of (11.29) while the level of pain in respondents with lavender aromatherapy has the average value (13.71) shows that Giving more kegel exercises effective compared with Giving lavender aromatherapy for lower pain level in pregnant women at PMB Novitasari, Amd

The research journal of Wasis Pujiati, et al (2019) with the title "Aromatherapy" Memories Compared to Lavender Against Post Sectio Pain Caesaria" who stated that the gift aroma therapy lever is actions that can support response and perception from pain felt by the patient, the womb powerful lavender aromatherapy lower pain experienced by the patient. Pain could influenced by parity, age, anxiety, support family, culture and environment as well as experience labor previously (Judha, 2012). one non - pharmacological therapy used in lower intensity painful is aromatherapy. Aroma therapy is one handling pain that can used for relaxation. Aromatherapy used in research this isoil

lavender. Lavender oil is one of the most common aromatherapy used in reduce pain and relaxation . Lavender oil is very fast absorbed by the skin, so the effect is very fast is known.

V. CONCLUSION

The intensity of pain before being given Kegel exercises showed that most (66.7%) of the respondents had pain intensity in the severe category, namely 12 people . The intensity of pain after being given Kegel exercises showed that almost half (44.4%) of the respondents had pain intensity in the moderate category, namely 8 people. The intensity of pain before being given lavender aromatherapy data showed that most (61.1%) of the respondents had pain intensity in the severe category, namely 11 people. The intensity of pain after being given lavender aromatherapy showed that half (50%) of the respondents had pain intensity in the medium category, namely 17 people. Cross tabulation of pain levels before and after Kegel exercises showed almost half (38.9%) of respondents before being given Kegel exercises had severe pain intensity and after being given Kegel exercises had Pain Intensity in the moderate category, namely 7 people. Based on the Wilcoxon test, it was found that the p-value was $0.001 < (0.05)$ which means that there is an effect of giving Kegel exercises on the intensity of pain in pregnant women, while in this study there was a Negative rank, namely 11, which means the intensity of pain after being given Kegel exercises. decreased compared to pain intensity before being given kegel exercises. Cross tabulation of pain levels before and after lavender aromatherapy showed that half (50%) of respondents before being given lavender aroma therapy had severe pain intensity and after being given lavender aroma therapy had pain intensity in the moderate category, namely 9 people. Based on the Wilcoxon test, it was found that the p-value of $0.000 < (0.05)$ which means that there is an effect of p given lavender aroma therapy on the intensity of pain in pregnant women, while in this study there was a Negative rank of 16 which means the intensity of pain after being given lavender aromatherapy decreased compared to pain intensity before being given lavender aromatherapy. Based on the Mann Whitney test, the p-value was $0.000 < (0.05)$, which means that there is a difference in pain levels between the administration of Kegel exercises and lavender aromatherapy for pregnant women at PMB Novitasari, Amd., Keb. The average value of pain level in respondents with Kegel exercises is (5.50) while the pain level in respondents with lavender aromatherapy has an average value (4.50) indicating that giving lavender aromatherapy is more effective than giving Kegel exercises for reduce pain levels in pregnant women at PMB Novitasari, Amd.,Keb.

VI. REFERENCES

- Arikunto. (2012). *Research Procedure A Practical Approach*. Jakarta: Rineka Cipta
- Artini. A. 2016. The Effectiveness of Kegel Exercises on Healing Time of Perineal Wounds in Normal Postpartum Mothers (Journal) accessed on January 10, 2020
- Bobak, Lowedermilk, Johnson, 2015. Textbook of Maternity Nursing, edition 4. Jakarta: EGC
- Craig et al. 2012. Textbook of maternity nursing. Jakarta: EGC
- Dewi, D. Ratnawati, R., Berlian, I., 2017. *The relationship between early mobilization and the speed of healing of perineal wounds in postpartum mothers in all working areas of Singosari Public Health Center, Malang Regency*. www.ejournal.umm.ac.id
- Hidayat AA, (2010). Health Research Methods Paradigm. Quantitative, Jakarta: Heath Books
- Mochtar, R. 2012. Synopsis of Obstetrics Obstetrics Physiology Obstetrics Pathology Volume 1. Jakarta: EGC.
- Nursalam, et al. 2017. *Infant and Child Nursing Care* . Jakarta: Salemba Medika
- Pangkahila.2012. Midwifery Care for Postpartum Mothers. Yogyakarta: The Horizon of Science
- Potter, PA (2005) in Handayani. 2015. *Fundamental of Nursing book 2 edition 7*. Jakarta: Salemba Medika.
- Romayantyo & Harini. (2011). The Effect of Fragrance Therapy with Rose Essential Oil by Inhalation on Anxiety Levels in Pre Opp Patients <http://www.repository.unand.ac.id>
- Saifullah. 2015. Normal maternity care. Yogyakarta: Nuha Medika
- Samion, Z. 2015. *Application of nursing care in fulfilling pain needs at RSIA Siti Khadijah III Makassar*. (Research journal) accessed on January 10, 2020
- Sarlito. 2014. Social psychology. Jakarta: PT Raja Grafindo

- Sharma, S. (2009). Aromatherapy. Tangerang: Charisma
- Sugiyono.2017. *Understanding Qualitative Research* . Bandung: Alpha Beta
- Virgona, A. 2013. The Effect of Lavender Aromatherapy on Pain Intensity in Postoperative Patients at Dustira Cimahi Hospital (Research Journal) accessed on January 10, 2020
- Wartolah. 2010. Basic Human Needs and Nursing Process. Jakarta : Salemba Medika
- Widayani.W. 2016. Lavender Aromatherapy Can Reduce Perineal Pain Intensity in Post Partum Mothers. (Journal) accessed on January 10, 2020
- Wulandari , SR and Handayani , S., 2011. *Midwifery care Mother breath*. Jatirejo : Gosyen Publishing.