# THE EFFECT OF ENDORPHINE MASSAGE AGAINT DECREASE IN PREGNANT WOMENS BACK PAIN IN VARASTRI SALON *DAY SPA* SLEMAN YOGYAKARTA

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#### Abstract

Pregnancy is something that is happy for every couple. But sometimes complaints arise during pregnancy. Complaints that often arise in pregnant women are back pain. Back pain usually occurs in trimester II and trimester III. Back pain can be treated with non-pharmacological therapy. Non pharmacological therapy can be done with Endorphine massage techniques. Endorphine massage can be done by health workers and non health workers. But many health workers, especially midwives who have not done endorphin massage, including in DIY. Action midwives who often do when pregnant women complain of back pain is to provide counseling on how to relieve pain. So that pregnant women do not know the benefits of Endorphin massage. The purpose of this study was to determine the effect of endorphine massage on reducing back pain in pregnant women at Varastri Salon Day Spa Sleman Yogyakarta. The research method uses experimental design with the pretest and posttest one group pre experimental design approach. Data collection was carried out on April 4 to May 6 2019 at Varastri Salon Day Spa Sleman Yogyakarta in samples that met the inclusion criteria of 30 people. Samples were taken by acidental sampling technique. Instrument by questionnaire and data analysis using the Wilcoxon test. The results showed that the back pain of pregnant women before endorphin massage (pretest), mild pain category was 53.3% and moderate pain 46.7%. Back pain in pregnant women after endorphin massage (post test), mild pain category 96.7% and moderate pain 3.3%. Statistical test results show that there is an effect of endorphin massage on the decrease in back pain of pregnant women (p-value: 0.000).

Keywords: Endorphine Massage; Back Pain, Pregnant Women

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#### Introduction

Pregnancy is a natural process. The changes that occur in women during normal pregnancy are physiological. However, sometimes complaints arise during pregnancy, one of which can interfere with the problem of back pain (Walyani, 2015).

Back pain during pregnancy often occurs in the third trimester. Back pain that occurs is a physiological state. One of the causes of back pain is a change in the center of gravity that changes to the front due to enlargement of the stomach (Walyani, 2015)

The incidence of complaints of back pain in pregnant women in Indonesia reaches 60-80%. Back pain experienced varies from mild to severe intensity. Pregnant women who experience moderate intensity back pain reaches 68% in Central Java Province, while 32% of pregnant women who experience low intensity back pain. Among all these women, 47-60% reported that back pain occurs in 5-7 months of pregnancy (Kartikasari & Nuryanti, 2016).

Back pain can be treated with pharmacological and non-pharmacological therapy. Pharmacological pain control including taking anti-pain medication which is more effective compared indeed pharmacological methods, but pharmacological methods are more expensive and have the potential to have side effects, especially for pregnant women which can affect both the mother, fetus, and for the progress of labor (Walyani, 2015).

Non-pharmacological methods can be done through activities without drugs, among others, by distraction techniques, self-hypnosis, reducing pain perception, and stimulation of massage, warm baths, hot or cold compresses. Non-pharmacological methods are cheaper, simpler, effective and without adverse effects. One effective way to prevent back pain in pregnant women is relaxation in the form of hand massage or massage called endorphine massage (Gumangsari, 2014).

Endorphin massage is a light touch method that was first developed by Constance Palinsky and used to manage pain. Numerous studies have shown that this technique increases the release of endorphins and oxytocin which functions to reduce pain (Aprillia, 2010). This is proven by a research conducted by Sulistyawati in 2018 about the effect of endorphine massage on the decrease in intensity of back pain in pregnant women at PMB Lia Astari, Mojoagung District, Jombang Regency that back pain can be overcome with non-pharmacological therapy, namely endorphine massage.

Endorphine massage can be done by health workers, especially midwives. However, many midwives or health workers have not done endorphin massage, including in the Special Region of Yogyakarta (Sulistyawati, 2009). This is because the midwife when meeting pregnant women with complaints of discomfort back pain is only given counseling how to alleviate but pregnant women do not get endorphin massage. However, there are still some services that have done endorphine massage in Yogyakarta, Varastri Salon Day Spa.

Based on an initial survey conducted on February 20, 2019 at Varastri Salon Day Spa Sleman Yogyakarta in the last 1 year there were 80% of 312 pregnant women who did endorphin massage at Varastri Salon Day Spa Sleman, Yogyakarta which experienced back pain that caused physical or physical fatigue emotional and disturbed daily activities. Based on

interviews with 10 pregnant women who have had endorphin massage, 80% of pregnant women complain of back pain before endorphine massage, and 20% of pregnant women do not experience back pain. After doing an endorphine massage, pregnant women feel more relaxed and do not feel back pain for about 1 week to 2 months. Based on the above problem formulation, it can be concluded whether there is an effect of endorphine massage on reducing back pain in pregnant women.

### 2. Research Methods

The research method uses experimental design with the pretest and posttest one group pre experimental design approach. Data collection was carried out on April 4 to May 6 2019 at Varastri Salon Day Spa Sleman Yogyakarta in samples that met the inclusion criteria of 30 people. Samples were taken by acidental sampling technique. Instrument by questionnaire and data analysis using the Wilcoxon test.

### 3. Result and Discussion

The number of respondents in this study were 30 pregnant women who did endorphin massage at Varastri salon Day Spa. Table 1 shows univariate analysis in terms of age, parity, gestational age and occupation.

Table 1. Univariate analysis

Characteristics	Category	Frequency	%
Mother's age	20-35	28	93.3
	>35	2	6.7
To	30	100	
Parity	Primigravida	22	73.3
	Multigravida	8	26.7
To	30	100	
Gestational age	Trimester II	9	30.0
	Trimester III	21	70.0
To	30	100	
Profession	Work	17	56.7
	Does not work	13	43.3
To	30	100	

From table 1. shows the majority of mothers in Varastri Salon Day Spa Sleman Yogyakarta have ages 20-35 years, 28 respondents (93.3%). Parity of most primigravida mothers is 22 respondents (73.3%), the gestational age of third trimester mayorita mothers is 21 respondents (70.0%), and most of the mothers' work is 17 respondents (56.7%).

Table 2. Distribution of back pain frequency in pregnant women before endorphine massage

Back Pain	Frequency	Persentage
Light	16	53.3
Middle	14	46.7
Total	30	100

From table 2. it can be seen that of the 30 respondents prior to performing endorphine massage a

part was included in the category of mild pain which amounted to 16 respondents (53.3%).

Table 3. Frequency distribution of back pain in

pregnant women after endorphine massage					
Back Pain	Frequency	Persentage			
Light	29	96.7			
Middle	1	3.3			
Total	30	100			

From table 3. it can be seen that of the 30 respondents after performing endorphine massage the majority are included in the category of mild pain that is 29 respondents (96.7%).

Based on table 4 of 30 respondents before doing endorphine massage in the category of moderate

pain that is 14 respondents (46.7%) and after doing endorphine massage in the category of moderate pain 1 respondent (3.3%). Based on the results of Wilcoxon analysis with  $\dot{\alpha}=0.05$ , obtained p-value of 0.000 where 0.000 <0.05, this means that the influence of endorphine massage on the decrease in back pain in pregnant women. So it can be concluded that there is an effect of endorphine massage on the decrease in back pain of pregnant women at Varastri Salon Day Spa Sleman Yogyakarta

Table 4. Results of Wilcoxon bivariate analysis, the effect of endorphine massage on decreasing back pain in pregnant women

pain in pregnant women								
Treatme	Pain level			- Total		P-		
	L	ight	ht Middle		- 10tai		value	
nt	F	%	F	%	F	%		
Before	16	53.3	14	46.7	30	100		
After	29	96.7	1	3.3	30	100	0.000	
Total	45	15	15	50	60	200		

Back pain is the result of excessive bending, walking without rest, lifting weights, especially if all these activities are carried out when the woman is tired (Nurasih, 2016). Endorphine massage is one of the therapies by doing a light touch or massage, which is very important to do in pregnant women. This therapy can be done as a pain manager, reduce anxiety during pregnancy, and can increase relaxation which can make a more comfortable feeling through the surface of the skin (Manurung et al., 2013).

After endorphine massage, the mother experiences a decrease in pain. Endorphine massage can help reduce pain. This happens because the mother feels more relaxed and comfortable. Numerous studies have shown that this technique increases the release of the hormones endorphine and oxytocin which function to reduce pain (Aprillia, 2011).

## 4. Conclusion

There is an effect of endorphine massage on reducing back pain in pregnant women in Varastri Salon Day Spa Sleman Yogyakarta, by obtaining a p-value of 0,000 (<0.05). Age characteristics of the majority of respondents aged 20-35 years, 28 respondents (93.3%) majority parity of primigravida mothers is 22 respondents (73.3%), the majority of the gestational age of second trimester mothers are 21 respondents (70.0%), and the majority of working mothers work namely 17 respondents (56.7%). Back pain of pregnant women before endorphine massage (pre-test) obtains an average

of 1.47. Pregnant back pain after an endorphin massage (post-test) averages 1.03.

#### 5. Recommendations

Through this research it is hoped that midwives can provide endorphine massage to pregnant women who experience complaints of discomfort back pain for reducing back pain, not just providing counseling alone.

#### 6. References

- Aprillia, Y. (2010). *Hipnostetri; rileks, nyaman dan aman saat hamil dan melahirkan*. Jakarta Gagas Media.
- Aprillia, Y. (2011). *Gentle birth*. Gramedia Widiasarana Indonesia.
- Gumangsari, N. M. G. (2014). Pengaruh Massage Counterpressure Terhadap Penurunan Tingkat Nyeri Haid Pada Remaja Putri di SMA N 2 Ungaran Kabupaten Semarang. Universitas Ngudi Waluyo.
- Kartikasari, R. I., & Nuryanti, A. (2016). Pengaruh Endorphin Massage Terhadap Penurunan Intensitas Nyeri Punggung Ibu Hamil. In Seminar Nasional Hasil Penelitian dan Pengabdian Masyarakat UNIMUS 2016. Muhammadiyah University Semarang. https://www.neliti.com/publications/176146/pengaruh-endorphin-massage-terhadappenurunan-intensitas-nyeri-punggung-ibuhami#cite
- Manurung, S., Nuraeni, A., & Lestari, T. (2013). Pengaruh teknik pemberian kompres hangat terhadap perubahan skala nyeri persalinan pada klien primigravida. J Health Quality, 4(1), 1-8. https://www.poltekkesjakarta1.ac.id/file/dokum en/7PENGARUH TEKNIK PEMBERIAN **KOMPRES HANGAT TERHADAP PERUBAHAN SKALA NYERI PERSALINAN PADA KLIEN** PRIMIGRAVIDA 2013.pdf
- Nurasih, N. (2016). Intensitas nyeri antara pemberian kompres air hangat dengan masase punggung bagian bawah dalam proses persalinan kala I fase aktif. *Jurnal Care*, *4*(3), 21–29. https://jurnal.unitri.ac.id/index.php/care/article/view/431
- Sulistyawati, A. (2009). Asuhan kebidanan pada masa kehamilan. Salemba Medika.
- Walyani, E. S. (2015). Asuhan kebidanan pada kehamilan. Pustaka Baru Press.