Relieve Labor Pain With Hypno Prenatal and Prenatal Yoga

Yunetra Franciska, Aprillia Ayu Shinta Yuka*, Wilma
Midwifery Department Poltekkes Kemenkes Palembang, Indonesia
Email: *apriliaayu@poltekkespalembang.ac.id*

Article history

ABSTRACT
Pregnancy and childbirth are physiological processes that every woman will go through. The intensity of pain experienced by women during labor varies, but it can be exacerbated by fear, tension, and anxiety. Hypnosis techniques have been proposed as a means of overcoming anxiety and fear. Compared to women who receive relaxation training or supportive counselling, hypnosis reduces pain intensity, shortens delivery time, and reduces the number of women who stay in the hospital for more than two days after their baby is born. Yoga during pregnancy, like hypnosis, has been shown to reduce pain intensity during the first stage of labor. This research aimed to see how prenatal hypnosis and prenatal yoga affected labor pain in women giving birth at the Independent Practice of Midwife Meli Rosita Palembang. This study employs an experimental research design with a Static Group Comparison strategy. The sample in this study consisted of 60 pregnant women divided into two groups: those who received hypnosis and prenatal yoga interventions and those who did not. Questionnaires, checklists, and tutorials on implementing prenatal hypnosis and prenatal yoga were used as instruments. Prenatal hypnosis and prenatal yoga significantly affected labor pain in Maternal Maternity at Meli Rosita's Independent Midwife Practice (p-value 0.000). The intervention group had a pain scale average of 2.70, while the control group had a pain scale average of 4.33. As a result, a combination of prenatal hypnosis and prenatal yoga can alleviate labor pain.
Keywords: *hypno prenatal; labor pain; prenatal yoga*

ABSTRAK
Kehamilan dan persalinan merupakan proses fisiologi yang akan dialami oleh setiap perempuan. Pengalaman perempuan menghadapi nyeri dalam persalinan beragam, namun intensitas nyeri dapat diperburuk oleh rasa takut, ketegangan dan kecemasan. Teknik hipnosis telah diusulkan sebagai cara untuk mengatasi ketakutan dan kecemasan. Hipnosis mengurangi intensitas nyeri, memperpendek waktu persalinan, dan mengurangi jumlah perempuan yang tinggal di rumah sakit selama lebih dari 2 hari setelah bayi mereka lahir dibandingkan dengan wanita yang menerima pelatihan relaksasi atau konseling suportif. Selain hipnosis, yoga selama kehamilan juga berpengaruh positif terhadap pengurangan intensitas nyeri kala I persalinan. Tujuan penelitian ini diketahuinya pengaruh hipno prenatal

dan yoga prenatal terhadap nyeri persalinan pada ibu bersalin di Praktik Mandiri Bidan Meli Rosita Palembang. Penelitian ini menggunakan metode penelitian eksperimen dengan pendekatan *Static Group Comparison*. Sampel pada penelitian ini adalah 60 orang ibu hamil yang dibagi dua kelompok yaitu kelompok yang mendapat intervensi hipnosis serta yoga prenatal, dan kelompok kontrol yang tidak mendapat intervensi. Instrumen yang digunakan berupa kuesioner, *check list* dan tutorial pelaksanaan hipno prenatal dan yoga prenatal. Hasil penelitian didapatkan ada pengaruh yang signifikan hipno prenatal dan yoga prenatal terhadap nyeri persalinan pada Ibu Bersalin di Praktik Mandiri Bidan Meli Rosita (nilai p 0,000). Rata-rata kelompok intervensi berada pada skala nyeri 2,70, sedangkan pada kelompok kontrol pada skala nyeri 4,33. Sehingga kombinasi hipno prenatal dan yoga prenatal dapat dipakai untuk mengurangi nyeri persalinan.
Kata Kunci: hipno prenatal; nyeri persalinan; yoga prenatal

INTRODUCTION

World Health Organization (WHO) estimates that more than 2 per 100 women die during pregnancy, childbirth and postpartum caused by various factors such as pregnancy with risk, labor with complications and infection during the postpartum period. According to the 2014 WHO report, the world maternal mortality rate (MMR) is 289,000 people (Kementerian Kesehatan RI, 2018). Childbirth is a normal, physiological event experienced by women. If labor cannot be adequately handled and does not run smoothly, labor takes a long time. Women's experiences with pain in labor are varied and complex, but the intensity of pain can be exacerbated by fear, tension, and anxiety (Aprilia, 2019).

Hypnosis techniques have been proposed as a way to help overcome fear and anxiety. Hypnosis is a state that changes from the awareness that involves a partial focus of attention to reducing awareness of the external environment. Increased individual responses in hypnosis to communication known as suggestions can be helpful to facilitate changes in the individual's perception and behaviour. Women can be guided into hypnosis by a practitioner during labor or starting from pregnancy and continuing through labor. Imannura, Budhiastuti and Poncorini (2016) found that hypnobirthing effectively reduced anxiety levels at Rumah Bersalin Marga Mulya Mojosongo Surakarta in dealing with childbirth with a p-value of 0.003. Hypnosis reduces pain intensity, shortens delivery time, and reduces the number of women staying in the hospital for more than two days after their baby is born compared with women who receive relaxation training or supportive counselling (Madden *et al.*, 2016). Astuti and Noviyanti (2016) stated that hypnobirthing significantly reduced pain intensity and labor progress with p

values of 0.001 and 0.038. Natural and smooth labor can be achieved if the uterus contracts properly, rhythmically and strongly with the lower uterine segment, cervix and pelvic floor muscles in a relaxed state, allowing the baby to pass through the birth canal easily. This situation can be achieved with the help of the pregnant woman herself, which is a perfectly calm and relaxing body. Physical exercises can be carried out before, during and after pregnancy. Prenatal yoga is a sport or physical exercise that functions to prepare for childbirth because its training techniques focus on flexibility of the birth canal muscles, breathing techniques, relaxation, and the mother's peace of mind during labor (Yudianti, 2019).

Several studies have shown that women who experience anxiety during pregnancy will experience more abnormal labor and even have maternal and fetal death complications. This condition can lead to further anxiety and tension, forming a feedback cycle that increases overall emotional intensity. During pregnancy, high stress and mood disturbance can cause low birth weight (LBW), preterm birth, spontaneous chromosomal abortion, low APGAR score, and neuroendocrine dysregulation (Schetter and Tanner, 2012).

There is many interventions have been developed to deal with anxiety. These methods include progressive relaxation, breathing relaxation, meditation, visualization, and hypnosis, better known as hypnotherapy. Some of these interventions aim to provide a feeling of comfort and relaxation to pregnant women. They can reduce fear and anxiety, especially for pregnant women who often experience pregnancy complaints (Dewi, 2013).

Yoga emphasizes basic exercises on postures and deep breathing techniques. Based on several studies, it is stated that yoga can help provide peace of mind and soul because it can be used as a stress coping (Pratignyo, 2014) and increasing self-efficacy (Campbell and Nolan, 2019). Yoga is stress coping because it can help someone make an effort to solve the problems they are facing (planful problem solving). This condition minimizes complaints due to anxious reactions, such as relieving pain in several limbs, regulating the rhythm of the breath to achieve a relaxed state, regulating heart rhythm, and improving sleep quality (Pratignyo, 2014). However, the research of combination hypno prenatal and yoga prenatal is still rare, so researchers are

interested in this research. At least midwives and doctors provide holistic services with an approach that maximizes the potential of mothers. This research is original and not plagiarized from the previous studies.

METHOD

This research is a quasi-experimental research with a Static Group Comparison design. This study's variables are hypno prenatal and prenatal yoga as independent variables and the intensity of labor pain as dependent variables. In this study, two groups will be compared, one treatment group and one control group. In the treatment group, they were given exercises in the form of hypno prenatal and prenatal yoga. Hypno prenatal and prenatal yoga exercises are offered four times with a distance of 1 week and 1 hour for each exercise. At the time of delivery, the intensity of labor pain was observed in the intervention and control groups. The results of observations in the two groups were compared.

This research was conducted in the Independent Practice of Midwife Meli Rosita Palembang in 2019. The population of this study is all third-trimester pregnant women who come in the Independent Practice of Midwife Meli Rosita Palembang. The sample selection technique used the purposive sampling technique (nonprobability sampling) that met the inclusion and exclusion criteria numbered 60 respondents divided into two groups, each group consisting of 30 respondents. Inclusion criteria: third-trimester pregnant woman, have no complications in pregnancy, respondents are willing to sign a research approval sheet (informed consent). While the exclusion criteria: first and second-trimester pregnant women have a complication in pregnancy, not willing to follow this research.

The measuring instrument for data collection was a Numeric Rating Scale checklist for labor pain intensity and questionnaire. The intervention provided the exercise of hypno prenatal and prenatal yoga. Data analysis is done with univariate or bivariate with Mann Whitney Test. Before the research was conducted, researchers conducted explanations before the study, and respondents filled out informed consent to maintain respondents' confidentiality. This research has been approved by the Health Research Ethics Committee of the Health Polytechnic Makassar Number 1130/KEPK-PTKMKS/X/2019 date October 21st 2019.

RESULTS AND DISCUSSION

Table 1. Characteristics of Maternity Women

Characteristics	Treatment		Control		Total	
	n	%	n	%	N	%
Age						
18-23	6	20	8	26.7	14	23.3
24-29	13	43.3	12	40	25	41.7
30-35	6	20	7	23.3	13	21.7
36-41	5	16.7	3	10	8	13.3
Parity						
1	9	30	11	36.7	20	33.3
2	12	40	10	33.3	22	36.7
3	8	26.7	7	23.3	15	25.0
4	1	3.3	2	6.7	3	5.0

Table 1 above shows that average respondents aged 24-29 years as many as 25 people (41.7%) of the 60 respondents. In the control group, most of the respondents were in the age range 24-29 years as many as 12 people (40%), while the treatments groups majority of respondents were in the age range 24-29 years are also as many as 13 people (43.3%). The average number of respondents at parity 2 was 22 people (36.7%) from 60 respondents. In the control group, most of the respondents were at parity 1, namely 11 people (36.7%), while in the treatment group, most of the respondents in parity 2 were 12 people (40%). The research by Marwa, Sumarah and Maryani (2017) showed that there was a difference in the scale of the first stage pain in primigravida during pregnancy exercise and pregnancy yoga with a p-value of 0.001, namely the primigravida who participated in pregnancy exercise had severe pain intensity, while the primigravida who followed the exercise pregnancy yoga has moderate pain intensity.

Table 2. Frequency Distribution of The Intensity of Maternal Pain

Labor Pain Intensity	Treatment		Control		Total	
	n	%	n	%	N	%
1	4	13.3	0	0	4	6.7
2	11	36.7	4	13.3	15	25.0
3	8	26.7	2	6.7	10	16.6
4	5	16.7	10	33.3	15	25.0
5	1	3.3	8	26.7	9	15.0
6	1	3.3	6	20	7	11.7

The study results of those who followed hypno prenatal and prenatal yoga and those who did not follow hypno prenatal and prenatal yoga showed that the average respondent at pain intensity 2 and 4 were 15 respondents (25%) of 60 respondents. The control group showed, most of the respondents were at pain intensity 4, namely ten respondents (33.3%), while in the treatment group who did, most of the respondents who were at pain intensity 2 were 11 people (36.7%). Women in labor perceived severe pain and psychological stress with similar patterns during labor (Iizuka, Masaoka and Ohashi, 2018). The results research by Suwanti, Hastuti and Prihati (2010) showed that there was an effect of deep breathing techniques on changes in anxiety levels in laboring mothers (p-value 0.0001), and there was an effect of deep breathing techniques on changes in pain levels in mothers in labor (p-value 0.014).

Almost all mothers in the treatment group were able to tolerate pain caused by contractions. Mothers can control their verbal responses when contractions occur, for example, by not screaming and crying so that they do not waste energy that can be used during the process of expelling the baby during stage II. On the other hand, mothers who cannot tolerate pain or have low tolerance appear very tired and have less social interaction. Pain tolerance is directly proportional to the response to anxiety in the mother during the active phase. All respondents in the control group had a moderate response to anxiety, while 5 out of 6 respondents had a mild response to anxiety in the treatment group. One person in the treatment group had a moderate response to anxiety due to labor occurring before the assessment so that the exercise was done less than seven times.

During the first stage of labor, pain is caused by uterine contractions that cause cervical dilation and thinning and uterine ischemia (decreased blood flow so that local oxygen becomes deficient) due to myometrial artery contraction (Cunningham, 2013). This pain originates in the lower abdomen and spreads to the dolphin area back and down to the thigh area. Usually, the mother only experiences this pain during contractions and is free from pain between contractions. Individuals react to pain in different ways. Individual pain tolerance is a condition for receiving pain of higher severity and longer duration. Tolerance depends on the attitudes, motivations, and values that a person believes in. Pain threatens physical and physiological well-being. Patients may choose not to express pain if they believe

that the pain will make other people feel uncomfortable or it is a sign that they will lose self-control. Patients who have a high pain tolerance can endure pain without assistance. Conversely, a patient with low pain tolerance can seek to relieve the pain (Iizuka, Masaoka and Ohashi, 2018).

Table 3. Results of Measurement of Labor Pain Intensity After Hypno Prenatal and Prenatal Yoga in Treatment And Control Group

Variable	Treatment		Control		p-value
	Mean	SD	Mean	SD	
Labor Pain Intensity	2.70	1.208	4.33	1.269	0.000

Table 3 above shows that the average value of labor pain intensity in the treatment group is 2.70 and the control group is 4.33. While the standard deviation value in the treatment group is 1.208, and in the control group is 1.269. It shows that the group that was given treatment in the form of hypno prenatal and prenatal yoga experienced less labor pain on average than the group that did not receive treatment. The results of this study are in line with the results of research by (Astuti and Noviyanti, 2016), which stated that hypnobirthing had a significant effect on reducing pain intensity and progress of labor.

From the Mann-Whitney statistical test results, the results p-value 0.000, which means that there is a significant effect of Hypno Prenatal and prenatal yoga on the intensity of labor pain. It was concluded that the treatment group had a significant influence after hypno prenatal and prenatal yoga exercises compared to the control group. This study is in line with the research conducted by Wildan, Jamhariyah and Purwaningrum (2013), which showed relaxation techniques affected the adaptation of active phase I labor pain in women giving birth in the Patrang Health Center, Jember Regency (Z count – 5.203). There is a significant hypnobirthing effect on pain reduction and administration of hypnobirthing in the contraction of p-value 0.000, which means there is a significant influence of giving hypnobirthing to the progress of childbirth (Tuju, Losu and Adam, 2020). As well as research by Mete and Ozberk (2020), hypnobirthing relaxation gives positive suggestions to the mother. This suggestion converts beta

brain waves (conscious mind) into alpha brain waves (unconscious mind). In the cerebral cortex, a sensory association process occurs in which stimuli are analyzed, understood, and arranged into something real so that the brain recognizes the object and meaning of the presence. In the hypothalamus, there is an increase in beta-endorphins derived from Pro-opiomelanocortin (POMC) peptide fragments. The secretion of beta-endorphins will help the mother increase pain tolerance during delivery. Hypnobirthing relaxation will lead to remaining relaxed and not thinking about and feeling the pain caused by uterine contractions (Mete and Ozberk, 2020).

Hypnobirthing is an auto-hypnosis technique, which is a natural effort to instil positive suggestions to the subconscious mind starting from pregnancy and preparation for childbirth based on the belief that every woman can undergo a natural, calm and comfortable process of pregnancy and childbirth. Fear of labor has terrible consequences. When someone experiences stress (fear), the message is conveyed by the receptors throughout the body. The body automatically releases stress hormones, namely catecholamines and adrenaline. Pregnant women who cannot release anxiety and fear before giving birth will release catecholamine hormones in high concentrations, causing more painful and painful uterine contractions. And catecholamine hormones can interfere with the release of oxytocin during labor (Aprilia, 2019).

This study is also in line with the results of Byrne and Dennard (2018) that the yoga group had slightly lower pain scores and slightly lower pain behavior scores. Also, Rong, Dai and Ouyang (2020) identified that yoga improved vaginal delivery, decreased premature delivery and birth weight of newborns, shortened the labor duration. The low scale of the first stage labor pain was because the principles of pregnancy yoga emphasized the correct breathing technique, relaxation, and meditation on the mother's body and mind so that the mother was better able to cope with the pain she felt. Controlled breathing is one of the non-pharmacological techniques that can help reduce pain perception and is usually safe. The breathing technique is part of the prenatal yoga movement, which is an effort to divert the pain felt by the mother. The more the mother enjoys the rhythm of the breath, the more calm and peaceful she will be able to cancel discomfort into a pleasant thing (Mete and Ozberk, 2020). The study has highlighted that yoga is a

non-invasive, easy to learn mind-body medicine and complementary health practice, effective in alleviating labor pain and possibly improving birth outcomes (Bolanthakodi *et al.*, 2018). The effectiveness of several mind-body therapies, namely biofeedback, progressive muscle relaxation, guided imagery, tai chi, and yoga, reduces maternal stress and other pregnancy-related conditions. These techniques have shown promising benefits through randomized trials for reducing pain, high blood pressure, stress, anxiety, depressive symptoms, labor pain and outcomes, and postpartum mood disturbances (Oyarzabal *et al.*, 2021).

CONCLUSION

The provision of hypno prenatal and prenatal yoga exercises to pregnant women can reduce the intensity of labor pain. There is a significant effect of hypno prenatal and prenatal yoga on the intensity of labor pain in maternal maternity at PMB Meli Rosita in 2019. The suggestion that the author can convey is that pregnant women can do hypno prenatal and prenatal yoga exercises regularly with the supervision of trained health workers to reduce the intensity of excessive pain during childbirth. There is a need for further research into the effect of another

non-pharmacological intervention to relieve labor pain and further research into the effects on the psycho-affective development of the newborns whose mothers were treated with these interventions.

ACKNOWLEDGEMENT

REFERENCES

Aprilia, Y. (2019) *Gentle birth*. Jakarta: Gramedia Widiasarana Indonesia.

Astuti, I. and Noviyanti, N. (2016) 'Pengaruh hypnobirthing terhadap tingkat nyeri dan kemajuan persalinan pada ibu bersalin di BPM Kota Cimahi', *The Southeast Asian Journal of Midwifery*, 1(1), pp. 43–47. doi: https://doi.org/10.36749/seajom.v1i1. 57.

Bolanthakodi, C. *et al.* (2018) 'Prenatal yoga: Effects on alleviation of labor pain and birth outcomes', *The Journal of Alternative and Complementary Medicine*, 24(12), pp. 1181–1188. doi: https://doi.org/10.1089/acm.2018.007 9.

Byrne, R. and Dennard, E. (2018) 'FPIN's Help Desk Answers: Effects of Prenatal Yoga on Labor Pain', *American family physician*. American Academy of Family Physicians, 98(1),

p. 49.

Campbell, V. and Nolan, M. (2019) '"It definitely made a difference": a grounded theory study of yoga for pregnancy and women's self-efficacy for labour', *Midwifery*, 68, pp. 74–83. doi: https://doi.org/10.1016/j.midw.2018.10.005.

Cunningham, F. G. (2013) *Obstetri Williams*. Jakarta: EGC.

Dewi, N. (2013) 'Hipnosis Pada Kehamilan, Persalinan, Dan Periode Pasca Persalinan Dapat Mencegah Depresi Pasca Melahirkan', *Jurnal Ilmiah Kebidanan*, 1(1), pp. 7–12.

Iizuka, Y., Masaoka, N. and Ohashi, K. (2018) 'Pain in labor assessed from two discomfort aspects: Physical pain intensity and psychological stress state', *Journal of Obstetrics and Gynaecology Research*. Wiley Online Library, 44(7), pp. 1243–1251. doi: https://doi.org/10.1111/jog.13660.

Imannura, P. S. U., Budhiastuti, U. R. and Poncorini, E. (2016) 'The Effectiveness of Hypnobirthing in Reducing Anxiety Level During Delivery', *Journal of Maternal and Child Health*, 1(3), pp. 200–204. doi: https://doi.org/10.26911/thejmch.2016.01.03.08.

Kementerian Kesehatan RI (2018) *Profil Kesehatan Indonesia Tahun 2017*. Jakarta. Available at: https://pusdatin.kemkes.go.id/resources/download/pusdatin/profil-kesehatan-indonesia/Profil-Kesehatan-Indonesia-tahun-2017.pdf.

Madden, K. *et al.* (2016) 'Hypnosis for pain management during labour and childbirth', *Cochrane Database of Systematic Reviews*, (5). doi:

https://doi.org/10.1002/14651858.CD009356.pub3.

Marwa, A. R., Sumarah, S. and Maryani, T. (2017) 'Perbedaan Skala Nyeri Kala I Dan Durasi Kala II Persalinan pada Primigravida dengan Senam dan Yoga Kehamilan', *Jurnal Kesehatan Ibu dan Anak*, 11(1), pp. 45–49.

Mete, S. and Ozberk, H. (2020) 'Relaxation-Focused Nursing Care in Threatened Preterm Birth: Can it be a Complementary Treatment?', *International Journal of Caring Sciences*, 13(3), pp. 2110–2122.

Oyarzabal, E. A. *et al.* (2021) 'Mind-Body Techniques in Pregnancy and Postpartum', *Clinical obstetrics and gynecology*. Wolters Kluwer, 64(3), pp. 683–703. doi: https://doi.org/10.1097/GRF.0000000000000641.

Pratignyo, T. (2014) *Yoga ibu hamil*. Jakarta: Puspa Swara.

Rong, L., Dai, L.-J. and Ouyang, Y.-Q. (2020) 'The effectiveness of prenatal yoga on delivery outcomes: A meta-analysis', *Complementary therapies in clinical practice*, 39, p. 101157. doi: https://doi.org/10.1016/j.ctcp.2020.101157.

Schetter, C. D. and Tanner, L. (2012) 'Anxiety, depression and stress in pregnancy: implications for mothers, children, research, and practice', *Curr Opin Psychiatry*, 25(2), pp. 141–148.

Suwanti, E., Hastuti, R. T. and Prihati, D. R. (2010) 'Pengaruh Teknik Napas Dalam terhadap Perubahan Tingkat Kecemasan dan Tingkat Nyeri pada Ibu Bersalin Kala I', *Jurnal Penelitian Poltekes Surakarta*, 4(1).

Tuju, S., Losu, F. N. and Adam, S. K. (2020) 'The Effectiveness of Hypnobirthing on the Frequency of Hicks in the First Stage of Birth Processes of Primigravida at the Public Health Center Bahu the City of Manado, North Sulawesi Province', in *2nd Manado Health Polytechnic International Conference*. Manado: Poltekkes Manado.

Wildan, M., Jamhariyah and Purwaningrum, Y. (2013) 'Pengaruh teknik relaksasi terhadap adaptasi nyeri persalinan ibu bersalinkala I fase aktif di BPS wilayah Puskesmas Patrang Kabupaten Jember Tahun 2012', *IKESMA*, 9(1), pp. 65–73.

Yudianti, I. (2019) 'Hasil Penapisan Persalinan pada Ibu yang Melakukan Senam Hamil dan Prenatal GentleYoga', *MIKIA*, 3(2), pp. 66–74.