



The Effectiveness Of Hypnobirthing In Reducing Low Back Pain Among Pregnant Women: A Literature Review

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Abstract

Introduction: Pregnancy is the physiological state in which a woman undergoes the development and growth of a fetus within her uterus. The increase in gestational age leads to a more significant number of changes experienced by pregnant mothers, such as discomfort in the lower back, particularly towards the end of pregnancy. One way to alleviate lower back pain is through the practice of hypnobirthing. **Material and Methods:** This study is a literature review examining the efficacy of hypnobirthing in alleviating low back pain in pregnant women. Articles about the specific theme were chosen from 2018 to 2023 using electronic databases, including Science Direct, PubMed, and Google Scholar, as well as open knowledge maps throughout the article search. The analysis of literature studies was conducted using the PRISMA approach by researchers. **Results:** Of the total 138 articles selected, 13 studies were eligible and thoroughly reviewed, and only 10 could be analyzed. In the results of this study, no one conducted research on the Effectiveness of Hypnobirthing in Reducing Low Back Pain Among Pregnant Women. Researchers found research on hypnobirthing but with different objectives or samples. Similarly, to overcome low back pain in pregnant women, researchers did not find hypnobirthing as an intervention. Based on these findings, the Effectiveness of Hypnobirthing in Reducing Low Back Pain Among Pregnant Women. It can be used as a novelty in further research. **Conclusion:** Researchers did not find research on the Effectiveness of Hypnobirthing in Reducing Low Back Pain Among Pregnant Women. Based on these findings, the Effectiveness of Hypnobirthing in Reducing Low Back Pain Among Pregnant Women can be used as a novelty in future research.

Keywords: Hypnobirthing, Low Back Pain, Pregnant Women





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1. Introduction

The condition known as pregnancy occurs when a woman is carrying a developing fetus inside of her body, which is typically located in the uterus. Changes will occur in the mother's body and mind during pregnancy. These changes will be considered physiological and psychological the more the gestational age increases, the more changes pregnant women experience (Susanti et al., 2023). As the uterus grows larger during pregnancy, the body's center of gravity moves forward, which requires pregnant women to adapt their body posture. Because of this, pregnant women must adjust their posture. Because pregnant women have an improper posture, they will experience increased stretching and weariness throughout their bodies, particularly in the lower back region (Chowdhury & Chakraborty, 2017).

A common ailment that occurs due to the compensation of the position of the enlarged uterus is known as the Lordosi posture. This posture causes the weight to transfer to the back, most noticeable during the third trimester of pregnancy. This weight shift produces pain in the back of the body due to the increased load. This alteration often results in discomfort in the lower back, including lumbar and ligament pain, particularly in the later stages of pregnancy. Prevalensi terjadinya nyeri punggung bawah pada ibu hamil terjadi lebih dari 50% di Amerika Serikat, Kanada, Ice land, Turki, dan Korea. Sementara yang terjadi di negara non-Skandinavia seperti Amerika bagian utara, Afrika, Timur tengah, Norwegia, Hongkong dan Nigeria lebih tinggi prevalensinya yang berkisar antara 21%- 89,9% (Vera Yulandasari, 2022).

Approximately 70% of pregnant women experience lumbar discomfort during pregnancy, from labor to the postpartum period. These findings align with a study conducted by Kasmandra in 2020, which focused on third-trimester pregnant women. The





study had a sample size of 30 participants and was conducted from May to June 2018. However, it is concerning that only 12% of pregnant women experiencing back pain sought medical assistance for further management and treatment despite 82% of cases being reported (Rusniawati, 2022).

According to recent studies, the occurrence rate of back pain during pregnancy is 57.3%. Nearly one-third of these women suffer from intense back pain, which significantly impacts their everyday lives. In most cases, low back pain (LBP) becomes more intense during the third season of pregnancy and is described as a dull ache. However, symptoms of LBP can begin as early as the beginning of pregnancy and continue until delivery. Sleep problems typically accompany lower back pain (LBP) during pregnancy and have the potential to impact activities of daily living as well as the quality of life (Sari et al., 2019).

Low back pain (LBP) is a prevalent condition in pregnant women, and multiple techniques are employed to alleviate the pain. During this phase, numerous pregnant women opt to refrain from pharmacological therapies due to their adverse consequences and instead seek out less invasive and non-harmful alternatives, such as Hypnobirthing (Sari et al., 2019). Given the many cases of low back pain in pregnant women, which can disrupt daily physical activities, it is necessary to conduct an assessment or analysis of the effect of providing Hypnobirthing Techniques on reducing low back pain in pregnant women. The purpose of this study was to conduct a literature review regarding the effectiveness of Hypnobirthing interventions to reduce low back pain in pregnant women.

2. Research Method

Research Design, Setting, and Sample

This study was conducted as a literature review. Articles aligning with the designated theme were chosen from 2017 to 2023. The inclusion criteria consisted of full-text papers that were readily accessible and employed research designs such as randomized controlled trials (RCTs), quasi-experiments, or experimental studies. The exclusion criteria encompassed conference papers, chapters, editorials, and unopened access material.





Measurement and Data Collection

The data sources utilized in this study consist of publications obtained from the electronic databases Science Direct, PubMed, Google Scholar, and open knowledge maps while conducting article searches. The researchers employed a search approach to utilize the keywords Hypnobirthing, Low Back Pain, and Pregnant Women in every database.

Data Analytics

The researchers employed the PRISMA approach, which adheres to the appropriate study methodology (Haddaway et al., 2022), as illustrated in Figure 1.

3. Results And Discussions

a. Result

Of the total 138 articles selected, 13 studies were eligible and thoroughly reviewed, and only 10 could be analyzed. In the results of this study, no one conducted research on the Effectiveness of Hypnobirthing in Reducing Low Back Pain Among Pregnant Women. Researchers found research on hypnobirthing but with different objectives or samples. Similarly, to overcome low back pain in pregnant women, researchers did not find hypnobirthing as an intervention. Based on these findings, the Effectiveness of Hypnobirthing in Reducing Low Back Pain Among Pregnant Women. It can be used as a novelty in further research. The methodology for participant selection in this study is illustrated in Figure 1.



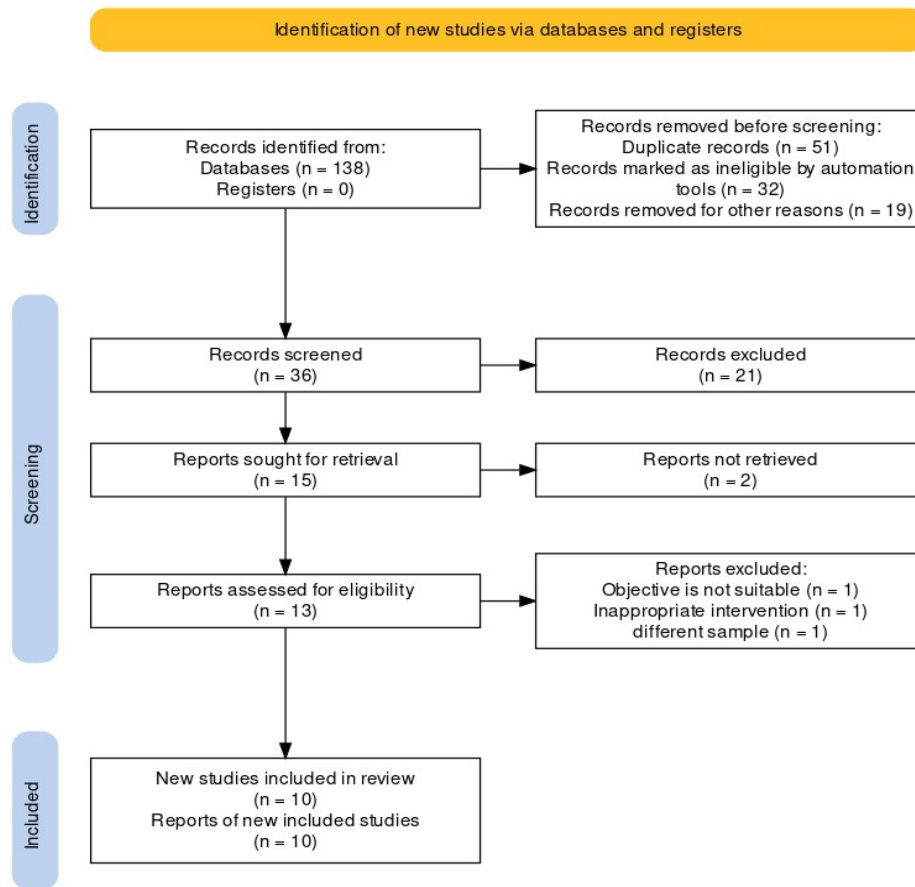


Figure 1 Selection Process of Studies Based on PRISMA (Haddaway et al., 2022)

Table 1. Result of Article Analysis

Author	Aims	Sample	Method	Result
(Paramasivam et al., 2020)	This study looked at how well hypnobirthing works to improve birth results.	30 primigravida	This is a mixed-methods study. The sample from the group that participated in the experiment utilized the Hypnobirthing technique, and the individuals who were under control were given 75 milligrams of pethidine intramuscular and 25 milligrams of Phenergan as a management technique.	In conclusion, it is possible to conclude that using Hypnobirthing techniques during labor effectively lowers discomfort and results in healthier perineal outcomes.





(Buran & Aksu, 2022)	This study aims to investigate the impact of hypnobirthing training on many aspects of labor, including labor pain, satisfaction, and birth outcomes.	80 nulliparous pregnant women	trial that is controlled and randomised. In the rumah sakit bersalin, there were a total of 80 ibu hamil nulipara women who were divided into two groups: the kelompok eksperimen n = 40 and the kelompok kontrol n = 40. Pelatihan dalam kelompok is provided by the Pasangan (four times a week, every week, three hours, and a session of the kelompok).	The average scores of the hypnobirthing group on the Wijma Birth Expectancy/Experience Scale were considerably lower than those of the usual care group ($p < 0.001$). The Visual Analog Scale (VAS) ratings of the experimental group were considerably lower than the control group ($p < 0.001$) during the latent, active, and transitional phases of labor. The experimental group exhibited a considerably reduced rate of birth intervention and a shorter duration of labor compared to the usual control group. The p-value is less than 0.001. Furthermore, the rate of vaginal delivery ($p = 0.037$) and the score on the Birth Satisfaction Scale Revision (BSS-R) were also seen to be more significant compared to the control group ($p < .001$).
(Legiati & Widiawati, 2017)	As a means of determining the impact that hypnobirthing has on the degrees of labor discomfort.	55 Respondent	This study was designed to be quasi-experimental, and it utilized a pre- and post-test technique for one group.	The findings demonstrated a correlation between hypnobirthing and a reduction in pain intensity during labor.
(Bülez et al., 2020)	The purpose of this study is to determine whether or not hypnobirthing education during the prenatal period helps reduce the dread of childbirth and aids in the management of labor pain during labor.	30 pregnant women	Investigation using a methodology that is quasi-experimental to evaluate hypnobirthing education. Within the first five weeks of the antenatal period, when the gestational age was between 24 and 26, hypnobirthing education was delivered to the expectant mother.	Training in hypnobirthing affects pregnant women's anxiety about giving birth, but it does not influence labor satisfaction or labor pain.





(Suwanti et al., 2023)	To assess the impact of pelvic rocking techniques on alleviating lumbar discomfort in pregnant women who had previously given birth multiple times.	30 multigravida pregnant women	Design of a non-equivalent control group pre and post-test research.	The Wilcox test yielded a statistically significant result with a P value 0.000. The application of the pelvic rocking technique has a positive impact on reducing low back pain in pregnant women who have had several pregnancies.
(Sukini et al., 2023)	A study was conducted to evaluate whether or not there is a difference between the effects of a red ginger compress and a white ginger compress on lessening the severity of low back pain in pregnant women in their third trimester.	The sample size was 32 respondents.	The type of research is a quasi-experimental study using a one-group pretest-posttest design and a control group design.	The univariate analysis of the red ginger compress intervention revealed a reduction in the median from 3 to 1, but the white ginger compress showed a decrease in the median from 3 to 2. The bivariate analysis revealed a significant pain reduction effect following the administration of a red ginger compress intervention, with a p-value of 0.000 ($p < 0.05$). Nevertheless, the utilization of red ginger compress has proven to be more efficacious in alleviating low back pain among pregnant women in their third trimester.
(Imannura et al., 2018)	The objective of this study is to assess the efficacy of hypnobirthing in mitigating anxiety levels during the process of childbirth.	30 pregnant third trimester	This study employed an analytical, experimental approach using a Randomized Control Trial (RCT) methodology. A total of 30 pregnant women nearing their delivery date were chosen for this study and divided into two groups: the hypnobirthing group and the non-hypnobirthing group.	Following the intervention, pregnant women who had hypnobirthing exhibited the most minimal anxiety level of 41.33 ($p=0.003$). Pregnant women who did not undergo hypnobirthing exhibited the lowest level of anxiety, measuring 51.60 ($p=0.003$). The reduction in anxiety in both groups exhibited statistical significance. Conclusion: Hypnobirthing proves efficacious in alleviating anxiety among expectant





				mothers during the process of childbirth.
(Gozali et al., 2020)	to determine the intensity of pain before and after massage intervention on low back pain in second and third-trimester pregnant women	30 Respondent	This study is a pre-experimental research with a "One Group Pretest-Posttest" design without a control group. The form of treatment given to individual subjects, specifically pregnant women in the second and third trimesters, involves back massage.	Before and after the massage intervention, there is a discernible difference in the level of discomfort experienced by pregnant women in the third trimester of pregnancy.

Table 1 above explains some research on hypnobirthing and the handling of low back pain interventions in pregnant women. Several studies were obtained regarding low back pain in pregnant women, namely (Gozali et al., 2020), (Sukini et al., 2023) and (Suwanti et al., 2023). While some research on hypnobirthing, namely (Imannura et al., 2018), (Paramasivam et al., 2020), (Buran & Aksu, 2022), (Legiati & Widiawati, 2017) and (Bülez et al., 2020). From the results of the research reviewed, it was found that no one had conducted research on the Effectiveness of Hypnobirthing in Reducing Low Back Pain Among Pregnant Women. On the basis of this review on the theme can be used as a novelty as a basis for further research.

b. Discussion

The study conducted by Paramasivam et al (2020) examined the impact of Hypnobirthing methods on 30 primigravida women. The research employed a mixed-method approach and revealed that using Hypnobirthing techniques during labor effectively reduced pain and improved perineal outcomes. Another study on hypnosis emphasized that when a laboring mother is in a relaxed state, she experiences less or no fear, leading to reduced pain and enhanced self-control in decision-making. Furthermore, the duration of the first and second stages of labor is shortened, and there is a higher occurrence of analgesic use, induction, and fewer interventions during labor (Catsaros & Wendland, 2020).

Buran & Aksu (2022) undertook a randomized controlled study on 80 nulliparous





pregnant women as part of their research. The objective is to investigate the impact of Hypnobirthing training on fear of childbirth (FOC), labor pain, labor satisfaction, and birth outcomes. The study revealed that the average score on the Wijma Birth Expectancy/Experience Scale was considerably lower in the hypnobirthing group compared to the usual care group ($p < 0.001$). During the latent, active, and transitional periods of labor, the Visual Analog Scale (VAS) ratings of the experimental group were considerably lower than those of the control group ($p < 0.001$). In the experimental group, the rate of birth intervention was markedly reduced, and the duration of labor was shortened compared to the regular control group. The p-value is less than 0.001. Furthermore, the rate of vaginal delivery ($p = 0.037$) and the score on the Birth Satisfaction Scale Revision (BSS-R) were also seen to be greater than those of the control group ($p < .001$). It has been demonstrated through research conducted by Bulez et al (2020) on thirty pregnant women who participated in a quasi-experiment study that Hypnobirthing Training affects the dread of giving birth. However, it does not impact the satisfaction of childbirth or the pain of labor.

A study by Legiati & Widiawati (2017) aimed to investigate hypnobirthing's impact on labor pain levels. The study had 55 participants who received hypnosis during labor. The study employed a quasi-experimental design with a one-group pre and post-test approach. The findings indicated a correlation between hypnobirthing and a reduction in pain intensity during the process of childbirth. Labor pain triggers the release of adrenaline and noradrenaline (also known as epinephrine and norepinephrine), leading to biochemical imbalances in the body and causing physical strain in mothers during labor. The consequences of this physiological process can manifest in the mother's conduct during childbirth. The laboring mother has agitation, difficulty focusing, and a want to escape the distressing circumstances. This disease has the potential to exacerbate anxiety and tension, resulting in a feedback loop that can amplify overall emotional intensity and ultimately raise degrees of pain (Olza et al., 2018). The efficacy of hypnobirthing in providing labor comfort has been demonstrated (Tuju et al., 2020). If the mother maintains a state of





calmness characterized by alpha, theta, and even delta brainwaves, her bodily, mental, and spiritual aspects will be interconnected. This state of being enables the labor process to be experienced gently and peacefully while allowing pain suppression (Hayes, 2023).

The study conducted by Suwanti et al (2023) a sample of 30 multigravida pregnant women. The research strategy used was a non-equivalent control group with pre and post-test measurements. The Wilcoxon test yielded a statistically significant result with a P-value of 0.000. The application of the pelvic rocking technique has a positive impact on reducing low back pain in pregnant women who have been pregnant multiple times. During the third trimester, individuals may experience the discomfort of back pain. This syndrome arises due to an elevated body weight borne by the uterus. Spinal curvature, increased body weight during pregnancy, changes in posture, and muscle imbalances, particularly in the erector and lumbosacral spine, are recognized factors contributing to low back discomfort in pregnant women. Prolonged incorrect condition or positioning might lead to abdominal muscle stress (Suwanti et al., 2023).

Rocking the pelvis is helpful because it helps strengthen the muscles in the abdominal region and the lower back, as well as reduce pressure on the blood vessels around the uterus and pressure felt by the bladder. Women who complain of pain in the waist, inguinal region, vaginal region, and surrounding areas may find relief from the movements, which allow them to relax and alleviate their discomfort. A research conducted by Zagazig University in Egypt and published in the Journal of American Science (2016) found that performing pelvic rocking movements can effectively decrease the occurrence of disability during pregnancy, a common cause of worry among pregnant women, specifically in managing low back pain. The pelvic rocking exercise can effectively reduce or eliminate low back pain during the later stages of pregnancy. It can also enhance the overall physical function and activity level of pregnant women in the final trimester, who commonly have limited mobility due to recurrent low back discomfort (Mualimah, 2021).

The study by Sukini et al (2023) aimed to compare the impact of red and white ginger compresses on alleviating low back pain in pregnant women in their third trimester.





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The sample consisted of 32 participants divided into two groups. The univariate analysis of the red ginger compress intervention revealed a reduction in the median from 3 to 1, but the white ginger compress showed a decrease in the median from 3 to 2. The bivariate analysis revealed a significant pain reduction effect after administering a red ginger compress intervention, with a p-value of 0.000 ($p < 0.05$). Nevertheless, the red ginger compress effectively alleviates low back pain in pregnant women during the third trimester. A *ginger compress* is a classic non-pharmacological treatment that combines warm compresses and relaxation therapy to alleviate pain effectively. Red and white ginger contain high levels of oleoresin and essential oil. Red ginger typically contains 5-10% oleoresin and 2.58-3.90% essential oil, while white ginger has an oleoresin concentration of 2.39-8.87% and an essential oil content of 1.70-3.80%. A ginger compress is quite beneficial in alleviating low back pain in pregnant women in the third trimester (Kumala & Nur'Aeni, 2019).

The study conducted by Imannura et al (2018) This study seeks to assess the impact of Hypnobirthing on the efficacy of reducing anxiety levels in 30 pregnant women nearing their delivery date. The research will employ an analytical experimental method using a Randomized Control Trial (RCT) design. The findings indicate that Hypnobirthing significantly alleviates the anxiety experienced by expectant mothers throughout labor and delivery. Essential hypnobirthing practices, including relaxation, affirmation, visualization, communication with the fetus, and deepening, enable pregnant women to effectively regulate their physical and mental states, promoting a harmonious preparation for childbirth. Hence, there is a prevailing feeling of tranquility and assurance that the body would be capable of operating in its innate manner during labor. Feelings of fear and anxiety in the face of labor are variables that can create psychological and physical stress, including the emergence of labor-related muscles (Yulizawati et al., 2023).

The study conducted by Gozali et al (2020) aimed to determine the level of pain experienced by pregnant women in their second and third trimesters before and after receiving back pain intervention. The study used a sample size of 30 participants and





followed a pre-experimental research design. A disparity in pain severity was seen among pregnant women in their third trimester before and after receiving a massage intervention. Massage is a form of nurturing that can enhance feelings of safety and well-being, particularly for expectant mothers (Rahayu, 2020). Massage therapy can induce the body to produce endorphin molecules, which act as analgesics and provide sensations of ease and well-being (Kartikasari & Nuryanti, 2016). demonstrates that endorphin massage relieves back pain among pregnant women in their third trimester. Diana (2019) research demonstrates that endorphin massage relieves back pain among pregnant women in their third trimester.

4. Conclusion

In this literature review, researchers found no research on the Effectiveness of Hypnobirthing in Reducing Low Back Pain Among Pregnant Women. Researchers found research on hypnobirthing but with different objectives and samples. Similarly, to overcome low back pain in pregnant women, researchers did not find hypnobirthing as an intervention. Based on these findings, the Effectiveness of Hypnobirthing in Reducing Low Back Pain Among Pregnant Women can be used as a novelty in further research.

5. Compliance With Ethical Standards

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Disclosure of conflict of interest

The researchers affirm that there were no conflicting interests in this study.

Statement of informed consent

Each action we undertake as authors is a result of a mutual agreement or permission.





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