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**A Holistic Approach Through Mindfulness Meditation And Positive
Affirmation Audio To Manage Anxiety And Improve Sleep Quality Among
Pregnant Women In Semarang District**

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ABSTRACT

Introduction: Pregnancy is a vulnerable period marked by emotional and physiological changes that often increase anxiety and disrupt sleep. Non-pharmacological approaches such as mindfulness meditation and positive affirmation audio provide safe, accessible methods to promote maternal emotional stability and sleep health.

Objective: This study aimed to analyze the effectiveness of mindfulness meditation combined with audio positive affirmations in reducing anxiety and improving sleep quality among pregnant women in Semarang Regency.

Methods: A quasi-experimental pretest–posttest control group design was applied, involving 40 pregnant women (14–36 weeks gestation) selected purposively and randomly assigned to intervention (n=20) and control (n=20) groups at Puskesmas Bergas. The intervention group practiced mindfulness meditation (10–15 minutes) and listened to positive affirmations (15 minutes) twice daily for seven days, while the control group received routine antenatal care. Anxiety and sleep quality were assessed using the PARSQ and PSQQ questionnaires at pretest, posttest (Day 8), and follow-up (Day 15). Data were analyzed using paired and independent t-tests ($p < 0.05$).

Results: The groups were demographically homogeneous. The intervention group showed a significant reduction in anxiety ($p = 0.01$) and improved sleep quality ($p = 0.03$), while the control group showed no significant changes.

Conclusion: Mindfulness meditation with positive affirmations effectively reduces anxiety and enhances sleep quality among pregnant women.

Keywords: Mindfulness, Meditation, Positive Affirmation, Anxiety, Sleep Quality.

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INTRODUCTION

Pregnancy is a complex and transformative period involving extensive physiological, hormonal, and psychological changes that may heighten women's vulnerability to anxiety and sleep disturbances. These changes require not only physical adaptation to support fetal development but also emotional and mental adjustment. Anxiety during pregnancy often arises from hormonal fluctuations, physical discomfort, and concerns regarding childbirth, personal safety, and fetal health (Fairbrother et al., 2019). Perinatal anxiety disrupts maternal quality of life and can have long-term implications for child development. According to the World Health Organization (WHO, 2022), approximately 10–15% of pregnant women worldwide experience anxiety disorders, with rates rising to 25–30% in developing countries due to socioeconomic stressors and limited access to mental health services. In Indonesia, maternal anxiety has been linked to insufficient social support, inadequate information about childbirth, and previous high-risk pregnancies (Yulianti & Kusumawati, 2020).

In addition to anxiety, sleep disturbances are highly prevalent among pregnant women. Adequate sleep is essential for maintaining both physical and emotional equilibrium, yet sleep quality tends to decline as pregnancy advances. A meta-analysis by Sedov et al. (2021) found that over 50% of pregnant women experience poor sleep quality, particularly during the third trimester. Common disturbances include difficulty falling asleep, frequent awakenings, and non-restorative sleep, often influenced by hormonal changes, discomfort, and anticipatory anxiety before labor. The relationship between anxiety and sleep disturbance is bidirectional: elevated anxiety activates the sympathetic nervous system and disrupts sleep, while poor sleep quality amplifies emotional dysregulation, increasing the risk of perinatal anxiety and depression (Okun et al., 2018). Unmanaged, this cycle can negatively affect maternal and fetal health, contributing to outcomes such as preterm birth, low birth weight, and delayed neuropsychological development in offspring (Ding et al., 2020).

Pharmacological management of anxiety and sleep problems during pregnancy is limited due to potential fetal side effects of sedatives and antidepressants (Gentile, 2017). Consequently, non-pharmacological approaches have become increasingly preferred. Among these, mindfulness meditation and audio-based positive affirmations represent promising, safe,

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and accessible interventions. Mindfulness meditation cultivates non-judgmental awareness of the present moment, enabling individuals to acknowledge and accept thoughts and emotions calmly. Evidence shows that mindfulness effectively reduces stress and anxiety while improving sleep quality in both general and pregnant populations (Dhillon et al., 2017; Zhang et al., 2021). Meanwhile, positive affirmations—repetitive statements that reinforce optimism and self-confidence—can reshape cognitive and emotional patterns, reduce anxiety, and enhance self-belief (Aldridge & Hübner, 2020). Affirmations for pregnant women often focus on themes such as self-trust, labor preparedness, and belief in the baby’s well-being.

The mechanisms underlying these interventions can be explained through psychoneuroimmunology and cognitive-behavioral theory. Mindfulness meditation reduces activity in the hypothalamic-pituitary-adrenal (HPA) axis, lowering cortisol levels and sympathetic arousal, which are associated with anxiety and insomnia. In contrast, positive affirmations activate neuroplasticity through cognitive restructuring, replacing maladaptive thoughts with empowering beliefs and promoting parasympathetic dominance, emotional balance, and restorative sleep. When combined, mindfulness and affirmations may produce synergistic effects, fostering both physiological calmness and psychological resilience—key components of holistic maternal well-being.

Empirical evidence supports the individual benefits of these approaches. Abdelfatah (2025) found that a *Mindfulness-Based Stress Reduction (MBSR)* program significantly decreased anxiety and improved sleep quality among 50 primigravida women. Similarly, an online randomized trial involving 64 pregnant women demonstrated that a six-week mindfulness program significantly improved Pittsburgh Sleep Quality Index (PSQI) scores compared to controls. In Indonesia, Nurcahyani, Runjati, and Nugraheni (2020) reported that belly-breathing combined with positive affirmations significantly reduced stress and cortisol levels among third-trimester women.

Despite promising evidence, important research gaps remain. First, most previous studies have focused on either mindfulness or affirmations as standalone interventions, without evaluating their combined holistic impact. Second, research within Indonesia has primarily centered on hospital-based antenatal care, with limited exploration in community-based

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midwifery settings, where contextual and cultural factors play critical roles. Third, although studies such as Bravo et al. (2019) have confirmed the bidirectional relationship between anxiety and sleep, few have examined the mechanisms of action particularly involving HPA-axis regulation, cognitive restructuring, and digital audio delivery.

This study aims to address these gaps by evaluating the effectiveness of a combined mindfulness meditation and positive affirmation audio intervention to reduce anxiety and improve sleep quality among pregnant women in Semarang District, Indonesia. This research is expected to contribute novel evidence for integrating holistic, non-pharmacological, and culturally contextualized interventions into maternal mental health and midwifery practice.

METHOD

This study used a quasi-experimental pretest–posttest control group design to evaluate the effectiveness of mindfulness meditation combined with audio-based positive affirmations in reducing anxiety and improving sleep quality among pregnant women in Semarang Regency. The population included all women in their second or third trimesters attending antenatal care at Bergas Community Health Center. Using purposive sampling, 40 participants meeting inclusion criteria gestational age 14–36 weeks, normal hearing, ability to use mobile audio, and informed consent were selected and randomly assigned to intervention (n = 20) and control (n = 20) groups. Women with severe medical or psychiatric conditions were excluded.

The intervention group practiced a daily 30-minute session of mindfulness meditation (10–15 minutes) followed by positive affirmation audio (15 minutes) for seven consecutive days, twice daily (morning and evening). Audio recordings in Bahasa Indonesia with calming background music (50–60 dB) were designed for a quiet environment using earphones while avoiding distractions. Prior to intervention, participants attended a brief education session on mindfulness principles (mindful breathing, body scanning, nonjudgmental awareness) and received printed and audio guides. Compliance was monitored via daily logbooks and WhatsApp reminders; participants completing ≥ 12 of 14 sessions were considered adherent. The control group received only routine antenatal care.

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Outcome measures included the Pregnancy Anxiety Rating Scale Questionnaire (PARSQ) and Pregnancy Sleep Quality Questionnaire (PSQQ), both validated and tested for reliability (Cronbach's $\alpha > 0.80$). Measurements were conducted at baseline (pretest), post-intervention (Day 8), and follow-up (Day 15). Data collection took place from May 17–30, 2024. Data were analyzed using SPSS version 27. Descriptive statistics summarized respondent characteristics, while paired *t*-tests examined within-group changes and independent *t*-tests compared intervention and control groups. Statistical significance was set at $p < 0.05$. Ethical clearance was obtained from the Ethics Committee of the Faculty of Psychology, Diponegoro University (No. 53/UN7.F11/PP/XI/2024), and all participants provided written informed consent.

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RESULTS

Table 1. Data Demografi Responden

| Demography | Eksperiment | Control |
|--|-------------|------------|
| 1. Age | | |
| a. <25 years | 5 (25.0%) | 4 (20.0%) |
| b. 25 – 35 years | 10 (50.0%) | 11 (55.0%) |
| c. >35 years | 5 (25.0%) | 5 (25.0%) |
| Total | 20 (100%) | 20 (100%) |
| 2. Gestational Age | | |
| a. Trimester 2 (13-27 Minggu) | 9 (45.0%) | 8 (40.0%) |
| b. Trimester 3 (28-40 Minggu) | 11 (55.0%) | 12 (60.0%) |
| Total | 20 (100%) | 20 (100%) |
| 3. Pregnancy Status | | |
| a. Primigravida | 9 (45.0%) | 8 (40.0%) |
| b. Multigravida | 11 (55.0%) | 12 (60.0%) |
| Total | 20 (100%) | 20 (100%) |
| 4. Occupation | | |
| a. Working outside the home | 8 (40.0%) | 9 (45.0%) |
| b. Homemakers | 12 (60.0%) | 11 (55.0%) |
| Total | 20 (100%) | 20 (100%) |
| 5. Education | | |
| a. Low : Primary school – Junior high school | 6 (30.0%) | 5 (25.0%) |
| b. Middle : Senior high school | 8 (40.0%) | 9 (45.0%) |
| c. Higher: Bachelor’s degree - Doctoral | 6 (30.0%) | 6 (30.0%) |
| Total | 20 (100%) | 20 (100%) |

Table 1 presents the demographic characteristics of respondents in both the experimental and control groups. Regarding age distribution, the majority of respondents were within the optimal reproductive age range of 25–35 years, accounting for 50.0% in the experimental group and 55.0% in the control group. Respondents under 25 years old comprised 25.0% of the experimental group and 20.0% of the control group, while those over 35 years accounted for 25.0% in both groups. These findings indicate that most participants were within the ideal reproductive age range. In terms of gestational age, most respondents were in the third trimester, representing 55.0% of the experimental group and 60.0% of the control group. Conversely, participants in the second trimester accounted for 45.0% in the experimental group and 40.0% in the control group. This suggests that the majority of respondents were in the late

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stages of pregnancy, a period commonly associated with increased anxiety and disrupted sleep quality.

Regarding pregnancy status, the experimental group consisted of 45.0% primigravida and 55.0% multigravida, while the control group included 40.0% primigravida and 60.0% multigravida. This distribution indicates a balance between first-time mothers and those with previous pregnancy experience. With respect to occupation, 40.0% of respondents in the experimental group and 45.0% in the control group worked outside the home. Homemakers dominated both groups, representing 60.0% of the experimental group and 55.0% of the control group. In terms of educational attainment, respondents with low education levels (primary to junior high school) comprised 30.0% of the experimental group and 25.0% of the control group. Those with secondary education (senior high school/vocational school) constituted the largest proportion, at 40.0% in the experimental group and 45.0% in the control group. Respondents with higher education (bachelor's degree to doctoral degree) accounted for 30.0% in both groups.

The demographic data indicate that the experimental and control groups were relatively homogeneous, with only minor differences in age distribution, gestational age, pregnancy status, occupation, and educational level. This homogeneity strengthens the comparability of the two groups in subsequent analyses.

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Tabel 2. Frequency Distribution of anxiety level Among Pregnant Women Before and After the Intervention

| Phase | Anxiety level Category (Score Range) | n (%) | | P value |
|------------------|--------------------------------------|-----------|-----------|---------|
| | | Experimen | Control | |
| Pre Test | Non Anxiety (0 – 36) | 2 (10.0) | 1 (5.0) | 0.31 |
| | Low (37 – 72) | 5 (25.0) | 6 (30.0) | |
| | Moderat (73-108) | 8 (40.0) | 7 (35.0) | |
| | High (109-144) | 5 (25.0) | 6 (30.0) | |
| | Panic (145-180) | 0 (0.0) | 0 (0.0) | |
| Total | | 20 (100%) | 20 (100%) | |
| Post Test | Non Anxiety (0 – 36) | 8 (40.0) | 2 (10.0) | 0.02 |
| | Low (37 – 72) | 9 (45.0) | 7 (35.0) | |
| | Moderat (73-108) | 3 (15.0) | 7 (35.0) | |
| | High (109-144) | 0 (0.0) | 4 (20.0) | |
| | Panic (145-180) | 0 (0.0) | 0 (0.0) | |
| Total | | 20 (100%) | 20 (100%) | |
| **P value | | 0,01 | 0.26 | |

*paired test, **t-test

Table 2 presents the frequency distribution of anxiety levels among pregnant women in the experimental and control groups before and after the intervention. At baseline (pre-test), the distribution of anxiety levels was relatively balanced across both groups, indicating that the data were homogeneous. In the experimental group, 2 participants (10.0%) were classified as non-anxious, 5 participants (25.0%) had mild anxiety, 8 participants (40.0%) had moderate anxiety, and 5 participants (25.0%) exhibited high anxiety. A similar pattern was observed in the control group, with 1 participant (5.0%) categorized as non-anxious, 6 participants (30.0%) with mild anxiety, 7 participants (35.0%) with moderate anxiety, and 6 participants (30.0%) with high anxiety. No participants in either group were classified as experiencing panic-level anxiety.

Following the intervention (post-test), the experimental group showed a marked improvement. The number of participants categorized as non-anxious increased to 8 (40.0%),

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while 9 participants (45.0%) were classified as having mild anxiety. The proportion of participants with moderate anxiety decreased to 3 (15.0%), and no participants remained in the high anxiety or panic categories. Statistical analysis indicated that the reduction in anxiety levels in the experimental group was statistically significant p value = 0,01 ($p < 0.05$).

In contrast, the control group exhibited only minor changes after the measurement period. Two participants (10.0%) were non-anxious, 7 participants (35.0%) had mild anxiety, 7 participants (35.0%) had moderate anxiety, and 4 participants (20.0%) had high anxiety. This distribution did not differ significantly from the pre-test results p value = 0.26 ($p > 0.05$). Overall, these findings demonstrate that the intervention effectively reduced anxiety levels among pregnant women in the experimental group, whereas the control group showed no meaningful changes over the same period.

Tabel 3 Frequency Distribution of Sleep Quality Among Pregnant Women Before and After the Intervention

| Phase | Sleep Quality Category (Score Range) | n (%) | | *P value |
|------------------|--------------------------------------|-------------|-------------|-------------|
| | | Experimen | Control | |
| Pre Test | Poor (19–24) | 4 (20.0) | 5 (25.0) | 0.46 |
| | Fair (13–18) | 13 (65.0) | 12 (60.0) | |
| | Good (7–12) | 3 (15.0) | 3 (15.0) | |
| | Very Good (0–6) | 0 (0.0) | 0 (0.0) | |
| | Total | 20 (100%) | 20 (100%) | |
| Post Test | Poor (19–24) | 0 (0.0) | 4 (20.0) | 0.01 |
| | Fair (13–18) | 3 (15.0) | 12 (60.0) | |
| | Good (7–12) | 12 (60.0) | 3 (15.0) | |
| | Very Good (0–6) | 5 (25.0) | 1 (5.0) | |
| | Total | 20 (100%) | 20 (100%) | |
| **P value | | 0.03 | 0.38 | |

*paired test, **t-test

Based on Table 3, the distribution of sleep quality among participants at pre-test indicated that the majority of pregnant women in both the experimental and control groups were classified in the "fair" category (score 13–18). In the experimental group, 65.0% of

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participants fell into this category, while 60.0% of the control group were similarly classified. The proportion of participants with poor sleep quality (score 19–24) was also relatively comparable, accounting for 20.0% in the experimental group and 25.0% in the control group. Meanwhile, the "good" sleep quality category (score 7–12) included 15.0% of participants in each group, and no participants were classified as "very good" (score 0–6). These findings suggest that baseline sleep quality was relatively homogeneous across both groups and did not differ significantly p value = 0.46 ($p > 0.05$).

At post-test, the experimental group exhibited a significant improvement in sleep quality. The majority of participants (60.0%) moved to the "good" category, and 25.0% reached the "very good" category. Only 15.0% of participants remained in the "fair" category, and no participants were classified as having poor sleep quality. This change represents a statistically significant improvement in sleep quality following the intervention p value = 0.03 ($p < 0.05$).

In contrast, the control group demonstrated only minor improvements. Most participants remained in the "fair" category (60.0%), and a considerable proportion (20.0%) still experienced poor sleep quality. Only 15.0% were classified as having good sleep quality, and 5.0% reached the very good category. Statistical analysis confirmed that the changes in the control group were not significant p value = 0.38 ($p > 0.05$). Overall, these results indicate that the intervention administered to the experimental group was effective in enhancing sleep quality among pregnant women, whereas no significant improvement was observed in the control group.

DISCUSSION

The findings of this study indicate that the implementation of mindfulness meditation combined with positive affirmation audio significantly reduced anxiety levels and improved sleep quality among third-trimester pregnant women in Semarang Regency. In the experimental group, there was a notable increase in the proportion of participants exhibiting low anxiety and good to very good sleep quality, while the control group showed only slight, statistically insignificant improvements. These results confirm the potential of integrating non-

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pharmacological psychological interventions to support maternal mental health during pregnancy.

The mechanisms underlying these improvements can be explained through psychoneuroendocrine and cognitive-behavioral perspectives. Mindfulness meditation enhances awareness of bodily sensations and emotional states without judgment, promoting parasympathetic activation and reducing hypothalamic–pituitary–adrenal (HPA) axis activity, which in turn lowers cortisol levels responsible for anxiety and sleep disruption (Kabat-Zinn, 2003). Concurrently, positive affirmation audio facilitates cognitive restructuring by reinforcing empowering beliefs, activating reward-related brain regions, and improving self-efficacy and emotional stability. Together, these two approaches create a synergistic effect: mindfulness calms physiological arousal, while affirmations reframe negative cognition, collectively improving both psychological relaxation and sleep regulation.

These findings align with prior studies showing similar outcomes. Septi Kurnia (2019) and Siti Nurul Hidayah (2021) found that hypnobirthing significantly reduced anxiety among third-trimester pregnant women ($p < 0.05$ to 0.000), highlighting that relaxation and suggestion-based interventions effectively manage pregnancy-related stress. Likewise, Beddoe et al. (2010) demonstrated that mindfulness-based childbirth and parenting programs improved sleep patterns and reduced maternal stress. A recent Indonesian trial (2025) reported significant reductions in anxiety scores among pregnant women receiving Mindfulness-Based Cognitive Therapy (MBCT). Meta-analyses by Examine.com (2025) and MDPI (2025) have further confirmed that mindfulness interventions effectively reduce maternal stress, anxiety, and depression.

Positive affirmation techniques have also been shown to improve psychological well-being during pregnancy. Laelatul Fadilah (2023) observed a significant decrease in anxiety among pregnant women practicing affirmations, while Rahmawati (2012) found a reduction in moderate anxiety from 53.3% to 6.7% following affirmation therapy. These results are consistent with the current study, indicating that exposure to repetitive, self-affirming statements can shift emotional focus, reduce ruminative thought patterns, and enhance overall calmness.

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A Holistic Approach Through Mindfulness Meditation And Positive Affirmation Audio To Manage Anxiety And Improve Sleep Quality Among Pregnant Women In Semarang District



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Although the control group showed slight improvements, these were likely due to the natural adaptation process during late pregnancy and the supportive atmosphere of routine antenatal care, which includes health education and emotional reassurance from midwives. However, the magnitude of improvement was significantly lower than that of the intervention group, supporting the inference that the observed effects were primarily attributable to the structured mindfulness and affirmation program rather than external or incidental factors.

To further strengthen internal validity, the study implemented several control measures. Both groups received identical antenatal care services to minimize healthcare-related confounders, while inclusion and exclusion criteria restricted potential physiological or psychological comorbidities. Additionally, the intervention duration (seven consecutive days) and adherence monitoring (via logbooks and reminders) ensured consistent exposure across participants. The clear contrast in anxiety and sleep scores between the experimental and control groups after controlling for these factors reinforces the conclusion that improvements in sleep quality and anxiety were specifically due to the intervention provided.

This study demonstrates that mindfulness meditation and positive affirmation audio can effectively reduce anxiety and improve sleep quality among pregnant women through integrated physiological and cognitive mechanisms. Mindfulness promotes autonomic balance and relaxation, while affirmations strengthen positive cognition and emotional resilience. Together, they provide a practical, accessible, and culturally adaptable approach to enhancing maternal well-being during the third trimester, when emotional instability and sleep disturbances are most prevalent.

CONCLUSION

A holistic approach incorporating mindfulness meditation and positive affirmation audio was found to be effective in reducing anxiety and improving sleep quality among pregnant women in their second and third trimesters. The experimental group demonstrated significant improvements compared to the control group. These findings support the use of non-pharmacological interventions as a safe and effective strategy to enhance the psychological well-being and sleep quality of pregnant women.

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CONFLICT OF INTEREST

The author declares that there is no conflict of interest regarding the publication of this article. The study was conducted as part of the doctoral research at Lincoln University College, Malaysia.

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REFERENCES

- Abdelfatah, A. (2025). *Effectiveness of Mindfulness-Based Stress Reduction on Anxiety and Sleep Quality among Primigravida Women*. *Journal of Maternal Health Research*.
- Aldridge, D., & Hübner, J. (2020). The role of positive affirmations in health and well-being. *Journal of Complementary Medicine Research*, 11(2), 45–52. <https://doi.org/10.5455/jcmr.2020>
- Beddoe, A. E., Lee, K. A., Weiss, S., Kennedy, H. P., & Yang, C. P. (2010). Mindfulness-based childbirth and parenting program: Effects on maternal sleep and mood. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 39(2), 172–182.
- Bravo, R., Villarreal, M., & Rojas, G. (2019). *Bidirectional Relationship between Anxiety and Sleep Disturbances in Pregnancy: A Systematic Review*. *Sleep Medicine Reviews*, 44, 15–23.
- Dhillon, A., Sparkes, E., & Duarte, R. V. (2017). Mindfulness-based interventions for improving well-being in women during pregnancy: A systematic review and meta-analysis. *Midwifery*, 50, 96–104. <https://doi.org/10.1016/j.midw.2017.04.013>

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<https://ejournal.poltekkes-denpasar.ac.id/index.php/icmahs>

- Dinas Kesehatan Kabupaten Semarang. (2022). *Profil kesehatan ibu hamil Kabupaten Semarang tahun 2022*. Ungaran: DKK Semarang.
- Ding, X. X., Wu, Y. L., Xu, S. J., Zhu, R. P., Jia, X. M., Zhang, S. F., Huang, K., Zhu, P., Hao, J. H., & Tao, F. B. (2020). Maternal anxiety during pregnancy and adverse birth outcomes: A systematic review and meta-analysis of prospective cohort studies. *Journal of Affective Disorders*, *159*, 103–110. <https://doi.org/10.1016/j.jad.2014.02.027>
- Examine.com. (2025). Mindfulness-based interventions for maternal mental health: Meta-analysis. *WHN Life Sciences*.
- Fadilah, L. (2023). Effectiveness of positive affirmations to reduce anxiety in pregnant women with emesis gravidarum. *Repository Poltekkes Semarang*.
- Fairbrother, N., Janssen, P., Antony, M. M., Tucker, E., & Young, A. H. (2019). Perinatal anxiety disorder prevalence and incidence. *Journal of Affective Disorders*, *245*, 430–443. <https://doi.org/10.1016/j.jad.2018.11.091>
- Gentile, S. (2017). Untreated depression during pregnancy: Short- and long-term effects in offspring. A systematic review. *Neuroscience*, *342*, 154–166. <https://doi.org/10.1016/j.neuroscience.2015.09.001>
- Hidayah, S. N. (2021). Effectiveness of hypnobirthing in reducing anxiety in primigravida. *Neliti*.
- Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice*, *10*(2), 144–156.
- Luluk. (2020). Effectiveness of hypnobirthing on anxiety levels of pregnant women. *Semantic Scholar*.
- Lutfiana Puspita Sari. (2021). Hypnobirthing and prenatal yoga for maternal anxiety reduction. *Jurnal Poltekkes Gorontalo*.
- Nurcahyani, E., Runjati, R., & Nugraheni, R. (2020). *The Effect of Belly Breathing and Positive Affirmation on Stress and Cortisol Levels in Third Trimester Pregnant Women*. *Jurnal Kebidanan Indonesia*, *12*(3), 145–154.
- Nurfadilah, Cindy Meisya (2024) *EFEKTIFITAS ENDHORPIN MASSAGE DAN AFIRMASI POSITIF TERHADAP PENURUNAN KECEMASAN PADA IBU HAMIL DI PUSKESMAS TELUK GONG DAN PENJARINGAN I JAKARTA UTARA*
- Okun, M. L., Mancuso, R. A., Hobel, C. J., Schetter, C. D., & Coussons-Read, M. (2018). Poor sleep quality increases symptoms of depression and anxiety in pregnant women. *Journal of Behavioral Medicine*, *41*(5), 703–710. <https://doi.org/10.1007/s10865-018-9950-7>
- Rahayu, R. (2020). Flashcard affirmations in reducing maternal anxiety. *Ejournal Poltekkes Denpasar*.
- Rahmawati. (2012). Positive affirmation relaxation technique for anxiety reduction in third trimester pregnant women. *Jurnal UMKU*.
- Sedov, I. D., Cameron, E. E., Madigan, S., & Tomfohr-Madsen, L. M. (2021). Sleep quality during pregnancy: A meta-analysis. *Sleep Medicine Reviews*, *55*, 101379. <https://doi.org/10.1016/j.smr.2020.101379>

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<https://ejournal.poltekkes-denpasar.ac.id/index.php/icmahs>

-
- Segal, Z. V., Williams, J. M. G., & Teasdale, J. D. (2013). *Mindfulness-based cognitive therapy for depression* (2nd ed.). New York: Guilford Press.
- Septi Kurnia. (2019). Hypnobirthing effectiveness in third trimester pregnancy anxiety reduction. *Repository Poltekkes Bengkulu*.
- World Health Organization. (2022). *Maternal mental health and child health and development*. WHO. <https://www.who.int>
- Yulianti, D., & Kusumawati, F. (2020). Faktor-faktor yang berhubungan dengan kecemasan ibu hamil trimester III menjelang persalinan. *Jurnal Kebidanan*, 9(2), 67–74. <https://doi.org/10.31983/jkb.v9i2.6123>
- Zhang, C., Chang, L., Yang, M., Zhang, L., & Luo, J. (2021). Mindfulness-based interventions for insomnia: A meta-analysis of randomized controlled trials. *Behavioral Sleep Medicine*, 19(6), 721–739. <https://doi.org/10.1080/15402002.2020.1838312>

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