



The Effect of Prenatal Yoga on Sleep Quality of Pregnant Women in The Third Trimester At PMB Restu Bunda

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ABSTRACT

Background: Sleep quality often declines during the third trimester of pregnancy due to significant physiological and psychological changes, such as frequent urination, back pain, anxiety, and emotional fluctuations. These disturbances can negatively impact maternal health and fetal development.

Objective: This study aimed to examine the effect of gentle prenatal yoga on sleep quality among third-trimester pregnant women at PMB Restu Bunda, Kebumen.

Methods: A quasi-experimental design with a one-group pretest–posttest approach was used. The study involved 40 pregnant women in their third trimester selected by total sampling. Sleep quality was assessed using the Pittsburgh Sleep Quality Index (PSQI) before and after five sessions of gentle prenatal yoga conducted over two weeks. Each session lasted 30–60 minutes and included diaphragmatic breathing, gentle stretching, and relaxation poses (cat–cow, butterfly, mountain, and side-lying savasana), led by a certified prenatal yoga instructor. Data were analyzed using the Wilcoxon signed-rank test with a significance level of $p < 0.05$.

Results: Before the intervention, 85% of participants had poor sleep quality. After participating in prenatal yoga, 92.5% reported good sleep quality. The Wilcoxon test showed a significant improvement in sleep quality ($Z = -5.868$, $p = 0.001$).

Conclusion: Gentle prenatal yoga significantly improves sleep quality in third-trimester pregnant women. It can be recommended as a safe and effective complementary therapy in antenatal care to promote maternal relaxation and healthy pregnancy outcomes.

Keywords: prenatal yoga, sleep quality, third-trimester pregnancy, non-pharmacological therapy.

INTRODUCTION

Insomnia is a common sleep disorder among pregnant women, especially during the third trimester. According to the World Health Organization (WHO), the global prevalence of insomnia during pregnancy is approximately 41.8%. Regional data show even higher rates: 48.2% in Asia, 57.1% in Africa, 24.1% in America, and 25.1% in Europe ^[1]. In Indonesia, as many as 75% of pregnant women experience a decline in sleep quality. National data from 2013 reported that 36.5% of pregnant women suffer from sleep disorders. In Central Java, the prevalence of pregnant women experiencing severe anxiety related to sleep patterns was 15.2% in the first trimester, 19.6% in the second trimester, and 22.8% in the third trimester ^[6].

Pregnancy is the result of the fertilization between a sperm cell and an ovum, followed by nidation or implantation. A normal pregnancy typically lasts around 40 weeks ^[10]. During the third trimester, women undergo significant physical and psychological changes. Common physical changes include frequent urination, back pain, and uterine enlargement, while psychological symptoms may involve anxiety, fear, and depression. These conditions can contribute significantly to sleep disturbances ^[5].

Sleep disorders are characterized by a disruption in the quality or quantity of sleep due to external or internal factors. In pregnant women, sleep disorders should be prevented because poor sleep quality can compromise immune function and increase susceptibility to illness. Sleep quality is defined by the ability to fall asleep easily, maintain uninterrupted sleep of sufficient duration, and wake up feeling refreshed ^[3].

Humans spend approximately one-third of their lives sleeping. According to a sleep poll conducted by the National Sleep Foundation in the United States, women are more likely than men to experience sleep disturbances, with rates of 63% in

women versus 4% in men ^[9]. Moreover, the National Sleep Foundation reported that 97.3% of women in their third trimester of pregnancy wake up frequently at night, averaging between 3 to 11 times ^[5].

Psychological factors such as depression, stress, and anxiety can significantly impair sleep quality. Reduced stages of Non-Rapid Eye Movement (NREM) and Rapid Eye Movement (REM) sleep caused by stress can trigger sleep disturbances in pregnant women ^[11]. These sleep problems are also influenced by physiological factors related to advancing gestational age, such as bladder pressure from the growing fetus, increased body weight leading to back pain, and uterine enlargement that compresses the diaphragm, causing shortness of breath ^[3].

Women with poor sleep quality may experience impaired concentration, reduced cognitive performance, delayed psychomotor responses, and heightened emotional sensitivity. Prolonged sleep disturbances during pregnancy have also been associated with adverse maternal and fetal outcomes, including prolonged labor, low birth weight, preterm delivery, compromised immune function, and impaired fetal development ^[9,14].

One of the recommended non-pharmacological interventions to manage sleep disorders in pregnancy is physical activity. According to the Indonesian Ministry of Health ^[13], physical activity is any bodily movement that requires energy expenditure. Exercise, including prenatal yoga and pregnancy exercise programs, is highly encouraged for pregnant women ^[12]. Pregnancy exercise consists of light physical movements, while yoga combines physical postures with breathing techniques and meditation to promote relaxation and prepare the body for childbirth.

Empirical evidence supports the benefits of yoga in late pregnancy. A randomized controlled trial by Beddoe et al. (2009) demonstrated that yoga improved sleep duration and quality in

third-trimester women compared to standard care [4]. Similarly, reported that pregnant women who practiced yoga showed reduced anxiety levels, decreased cortisol secretion, and enhanced overall well-being. Studies in Indonesia, however, remain limited and mostly focus on general physical exercise rather than structured yoga programs. Moreover, the application of yoga within community-based midwifery settings—such as Praktik Mandiri Bidan (PMB)—is still underexplored, despite its potential for sustainable maternal health promotion [7].

A preliminary study conducted from September to November 2023 at PMB Restu Bunda Kebumen revealed that out of 110 third-trimester pregnant women attending antenatal care, only 40 had participated in prenatal yoga sessions, while 70 women reported insomnia and frequent nighttime awakenings. These findings indicate a high prevalence of sleep disturbances and a low utilization of yoga-based interventions among pregnant women in this area. This condition reflects both a lack of awareness and limited integration of complementary therapies into routine antenatal care.

Given the increasing prevalence of sleep problems during the third trimester and the limited use of yoga in community-based maternal health services, this study seeks to address this research gap by examining the effect of gentle prenatal yoga on sleep quality among third-trimester pregnant women at PMB Restu Bunda, Kebumen. The novelty of this study lies in its application of an evidence-based prenatal yoga protocol within an independent midwifery setting, emphasizing both the physiological (parasympathetic activation, hormonal regulation) and psychological (relaxation, anxiety reduction) mechanisms of yoga in improving maternal sleep quality. Findings from this study are expected to provide scientific evidence for integrating structured prenatal yoga into antenatal care programs as a complementary and non-

pharmacological intervention for promoting maternal health and well-being.

METHODS

This study employed quasi-experimental (one-group pretest-posttest) approach to assess the effect of prenatal yoga on the sleep quality of pregnant women in their third trimester. The study was conducted at PMB Restu Bunda in Kebumen, Central Java, from September to November 2023.

The study population consisted of pregnant women in their third trimester who attended antenatal care at PMB Restu Bunda. A total of 40 participants were selected using a total sampling technique, based on the following inclusion criteria: (1) currently in the third trimester of pregnancy, (2) willing to participate in the study, and (3) physically capable of performing prenatal yoga exercises. Participants who experienced pregnancy complications or declined to complete the intervention were excluded from the study.

The instrument used to assess sleep quality was the **Pittsburgh Sleep Quality Index (PSQI)** questionnaire, which evaluates seven components: subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleep medication, and daytime dysfunction. Each component is scored from 0 to 3, resulting in a global score ranging from 0 to 21. A total score greater than 5 indicates poor sleep quality.

The intervention consisted of five gentle prenatal yoga sessions conducted over a two-week period, with each session lasting 30–60 minutes. All sessions were led by a certified prenatal yoga instructor with a background in maternal health and formal certification from the Indonesian Yoga Association. The yoga sequence included diaphragmatic breathing (pranayama), gentle stretching of the upper and lower limbs, and relaxation poses suitable for third-trimester pregnant women. The main postures practiced were cat–cow pose (Marjaryasana–Bitilasana) to

improve spinal flexibility, butterfly pose (Baddha Konasana) to enhance pelvic circulation, side-lying relaxation pose (Savasana variation) for body alignment and rest, and mountain pose (Tadasana) for posture stability and balance. Each session emphasized slow breathing, mindfulness, and muscle relaxation to promote parasympathetic activation and reduce sleep disturbances. Participants were encouraged to practice the breathing and relaxation components daily at home for 10–15 minutes [5].

Data were collected using the PSQI questionnaire both before and after the intervention. Pre-test data were gathered prior to the first yoga session, while post-test data were collected after the final session. The data were analyzed using statistical software. Descriptive statistics were used to summarize the demographic characteristics of the participants, and the Wilcoxon signed-rank test was employed to determine the differences in sleep quality before and after the intervention.

The results were interpreted based on a significance level of $p < 0.05$. A statistically significant result indicated that prenatal yoga had a positive effect on improving sleep quality among third-trimester pregnant women.

This study obtained ethical clearance from the Health Research Ethics Committee of STIKes Muhammadiyah Gombong, with reference number No. 1076/EC/KEPK/IX/2023. All participants were provided with an explanation of the study's objectives, procedures, potential benefits, and risks before data collection. Written informed consent was obtained from all participants, and confidentiality of personal data was strictly maintained.

RESULT

This study entitled "*The Effect of Prenatal Yoga on Sleep Quality in Third Trimester Pregnant Women at PMB Restu Bunda*" involved 40 respondents who met the inclusion and exclusion criteria. The results of the study include the

characteristics of the respondents and changes in sleep quality before and after the prenatal yoga intervention.

Table 1. Frequency Distribution of Respondents' Characteristics at PMB Restu Bunda

Characteristic	Frequency (n)	Percentage (%)
Age		
< 20 years	2	5.0
20–35 years	34	85.0
> 35 years	4	10.0
Parity		
Primigravida	24	60.0
Multigravida	15	37.5
Grandemultigravida 1		2.5
Occupation		
Housewife	31	77.5
Working women	9	22.5
Total	40	100

(Source: Primary Data, 2023)

Based on Table 1, the majority of respondents were aged 20–35 years (85%), 60% were primigravida, and 77.5% were housewives.

Table 2. Sleep Quality in Third Trimester Pregnant Women Before Prenatal Yoga Intervention at PMB Restu Bunda

Sleep Quality	Frequency (n)	Percentage (%)
Good	6	15.0
Poor	34	85.0
Total	40	100

(Source: Primary Data, 2023)

As shown in Table 2, before the prenatal yoga intervention, most third trimester pregnant women experienced poor sleep quality (85%).

Table 3. Sleep Quality in Third Trimester Pregnant Women After Prenatal Yoga Intervention at PMB Restu Bunda

Sleep Quality Frequency (n) Percentage (%)		
Good	37	92.5
Poor	3	7.5
Total	40	100

Table 3 shows that after participating in gentle prenatal yoga, most of the third trimester pregnant women experienced good sleep quality (92.5%).

Table 4. The Effect of Prenatal Yoga on Sleep Quality in Third Trimester Pregnant Women at PMB Restu Bunda

Test	Sleep Quality	Frequency (n)	Percentage (%)	Z	p-value
Pretest	Good	6	15.0	-5.868	0.001
	Poor	34	85.0		
Posttest	Good	37	92.5		
	Poor	3	7.5		
Total		40	100		

Table 4 indicates that before the intervention, 85% of respondents had poor sleep quality, while after the gentle prenatal yoga intervention, 92.5% had good sleep quality. The data were analyzed using the Wilcoxon Signed-Rank Test in SPSS. The results showed a Z-value of -5.868 and a p-value of 0.001 (< 0.05), indicating a statistically significant difference. Therefore, it can be concluded that gentle prenatal yoga has a significant effect on improving sleep quality in third trimester pregnant women at PMB Restu Bunda.

DISCUSSION

Identifying Sleep Quality Among Third-Trimester Pregnant Women Before Attending Prenatal Yoga at PMB Restu Bunda

The results of the study showed that the majority of third-trimester pregnant women at PMB Restu Bunda had poor sleep quality before undergoing gentle prenatal yoga, with 34 respondents (85%) classified in the poor category. According to the researcher's assumption, this was due to the discomfort experienced during the third trimester, such as frequent urination, back pain, and anxiety about childbirth, which can interfere with sleep quality.

According to Irma (2019), the evaluation of sleep and rest needs can be assessed by the absence of signs of sleep deprivation and the presence of recovery symptoms, such as feeling refreshed, alert, not anxious or lethargic, reduced dark circles under the eyes, and the ability to concentrate without cognitive or speech disturbances^[18]. Uliyah (2019) added that frequent nighttime awakenings cause mothers to sleep poorly, resulting in daytime drowsiness, feeling unrefreshed upon waking, and fatigue. If this condition persists, it can affect the health of both the mother and fetus. Poor sleep quality can cause fatigue, lack of

concentration, physical aches, mood swings, and emotional instability. Long-term sleep disturbances may lead to depression and result in infants having reduced restful sleep.

Sleep deprivation in pregnant women can cause fatigue and physical exhaustion, which may lead to uterine contractions. If it occurs in early pregnancy, it may lead to miscarriage, and if in the later stages, it can result in premature birth ^[16].

During the third trimester, there is an increase in the secretion of the hormone adrenaline (epinephrine), which contributes to heightened tension and restlessness in pregnant women, making it difficult to concentrate. This condition may cause further physical discomfort, thus impairing sleep. To address complaints that may lead to poor sleep quality, gentle prenatal yoga can serve as an alternative prenatal care therapy. This practice induces a relaxation effect through activation of the parasympathetic nervous system, which reduces the secretion of stress hormones such as adrenaline and increases the secretion of calming hormones like norepinephrine, resulting in a calmer and more relaxed state ^[15].

Identifying Sleep Quality Among Third-Trimester Pregnant Women After Attending Prenatal Yoga at PMB Restu Bunda

The study found that most third-trimester pregnant women at PMB Restu Bunda experienced good sleep quality after participating in gentle prenatal yoga sessions, with 92.5% reporting improvement. This finding aligns with previous studies indicating that prenatal yoga effectively enhances sleep by promoting relaxation and reducing physiological tension ^[19].

Improved sleep quality among pregnant women after yoga practice can be explained by several physiological mechanisms. Prenatal yoga activates the parasympathetic nervous system, which helps decrease sympathetic arousal and stress hormone secretion, particularly cortisol and adrenaline ^[21]. Reduced cortisol levels enhance melatonin production, a hormone that regulates circadian rhythm and sleep onset ^[23]. In addition, deep breathing and relaxation techniques used in yoga improve oxygen saturation and cerebral blood flow, stimulating the release of serotonin and gamma-aminobutyric acid (GABA)—neurotransmitters that promote calmness and sleep stability ^[20].

From a psychological perspective, yoga integrates mindfulness and meditation that encourage emotional regulation and stress reduction. These practices foster self-awareness, decrease anxiety about labor, and improve overall mood balance ^[22]. The meditative component helps shift focus from external stressors to internal calm, reducing cognitive hyperarousal that often underlies insomnia in late pregnancy. Consequently, pregnant women experience enhanced relaxation and emotional stability, which translate into better sleep quality.

Prenatal yoga also provides musculoskeletal benefits that indirectly improve sleep. Gentle stretching movements—such as cat–cow pose (Marjaryasana–Bitilasana) and butterfly pose (Baddha Konasana)—increase flexibility, reduce back and pelvic discomfort, and relieve muscle tension caused by the growing uterus. Improved posture and circulation help alleviate pain and physical strain that often disrupt sleep during the third trimester ^[23].

Furthermore, prenatal yoga encourages regulated breathing (pranayama), which enhances diaphragmatic movement and lung capacity, thereby improving oxygen exchange and relaxation responses. The rhythmic breathing pattern stabilizes the autonomic nervous system, reduces heart rate, and promotes physiological calm conducive to sleep onset and maintenance ^[19]. These findings indicate that prenatal yoga exerts multidimensional benefits encompassing physical, physiological, and psychological domains. The consistent practice of prenatal yoga not only improves sleep but also enhances maternal self-efficacy and emotional preparedness for childbirth. The current study contributes novel evidence from a community midwifery setting in Indonesia, demonstrating that structured prenatal yoga

sessions guided by certified instructors can serve as an effective, non-pharmacological approach to manage sleep disturbances among pregnant women.

The results support the integration of prenatal yoga into antenatal care programs, particularly for third-trimester women experiencing sleep difficulties. Incorporating yoga into routine maternal health education can help reduce reliance on pharmacologic interventions and promote holistic maternal well-being.

Analyzing the Effect of Prenatal Yoga on Sleep Quality in Third-Trimester Pregnant Women at PMB Restu Bunda

The results of the Wilcoxon signed-rank test using SPSS showed a Z-value of -5.868 and a p-value of 0.001 ($p < 0.05$), indicating a significant effect of gentle prenatal yoga on sleep quality in third-trimester pregnant women at PMB Restu Bunda. The researcher assumes that this improvement is due to the positive energy generated by yoga movements, which integrates each movement into a flow that brings physical relaxation, refreshment, and emotional tranquility. The relaxation phase in yoga, similar to meditation, leads to a state of subconscious stillness. During this phase, the calming guidance and background music stimulate a peaceful mental state, eliminate tension, and foster positive affirmations in the minds of pregnant women, effectively reducing anxiety, sleep difficulty, and mental distress.

According to Irma (2019), prenatal yoga prioritizes safety and comfort during practice, offering benefits such as increased energy and stamina, reduced muscle tension, relief from pregnancy-related physical discomfort, enhanced postpartum recovery, stabilized emotions, and improved mental focus. It helps build confidence, positive thinking, and emotional resilience, and fosters a spiritual connection between mother and baby. Meditation and relaxation further strengthen the maternal-infant bond and nurture patience and wisdom [18].

Yoga helps prepare the mind and body for pregnancy and childbirth by enhancing focus, maintaining flexibility, and reducing common physical complaints. Yoga postures used during pregnancy keep the body active and strong, minimizing discomfort and promoting a healthier, calmer labor experience.

This study had several limitations. First, it used a quasi-experimental design without a control group, which limits the ability to generalize findings and establish causality. Future studies are recommended to use a randomized controlled design with a comparison group. Second, the duration of the intervention (two weeks with five sessions) may not be sufficient to observe long-term effects of prenatal yoga on sleep quality and maternal health. Longer interventions could provide more comprehensive results. Third, the sample size was relatively small and limited to one midwifery clinic in Kebumen, which may affect external validity. Future research involving larger and more diverse populations across different regions is suggested. Finally, this study relied on self-reported sleep quality (PSQI), which is subjective; incorporating objective sleep measures such as actigraphy or polysomnography would strengthen the findings.

CONCLUSION

This study concludes that gentle prenatal yoga significantly improves sleep quality among third-trimester pregnant women at PMB Restu Bunda. The Wilcoxon signed-rank test showed a significant difference ($p = 0.001$) between

pre- and post-intervention PSQI scores, indicating that prenatal yoga effectively reduces sleep disturbances commonly experienced in late pregnancy.

Prenatal yoga serves as a safe and evidence-based non-pharmacological approach to enhance maternal relaxation, physical comfort, and emotional well-

being. It is recommended that antenatal care programs integrate regular prenatal yoga sessions led by certified instructors to support better maternal health outcomes during pregnancy.

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REFERENCES

1. Anshory VLS, Hasanah N, Ngo NF. Literature review tentang hubungan psikologis terhadap kejadian hiperemesis gravidarum. *J Sains Kesehatan*. 2022;4(1):89–98.
2. Fatmarizka T, et al. Pregnancy gymnastics education at Posyandu Ceria. *The 16th University Research Colloquium*. 2022:397–402.
3. Miranti NA. Pengaruh aktivitas fisik senam hamil dan yoga terhadap kualitas tidur pada ibu hamil. 2021;7(30):578–84.
4. Nurbaiti N, Nurita SR. Hubungan tingkat pengetahuan prenatal yoga dengan minat ibu hamil dalam mengikuti kelas prenatal yoga. *J Akad Baiturrahim Jambi*. 2020;9(1):49.
5. Safriani I. Pengaruh senam yoga terhadap kualitas tidur ibu hamil trimester III. *J Chem Inf Model*. 2017;53(9):1689–99.
6. Sirait HS, Asiah A, Deviyani F. Pengaruh pendidikan kesehatan reproduksi terhadap pengetahuan bahaya seks bebas. *J Kesehatan*. 2020;11(1):31–42.
7. Winarni RT, Weni TP. Pengaruh prenatal yoga terhadap tekanan darah pada ibu hamil di Kota Kediri. 2015:58–63.
8. Studi Program DIII Kebidanan, IkesT Muhammadiyah Palembang. Pengaruh senam hamil terhadap kualitas tidur trimester III. 2022;7.
9. Sulistyoningtyas S, Dwihestie LK. Peran mikronutrisi sebagai upaya pencegahan Covid-19. *J Ilmiah Permas*. 2022;12(Jan):75–82.
10. Widiastuti J. Poltekkes Kemenkes Yogyakarta. *J Kesehatan*. 2020;6(6):9–33.
11. Simanullang, E., & Siahaan, P. Y. B. (2023). *Pengaruh senam hamil terhadap kualitas tidur ibu hamil pada usia kehamilan TM III di PMB Wrima Deli Serdang tahun 2022*. **JIDAN: Jurnal Ilmiah Kebidanan**, 3(1), 36–43.
<https://ojs.stikesmucis.ac.id/index.php/nuri/article/view/812>
12. Rahayu, Anis Eka. 2022. “Penerapan Yoga Pada Ibu Hamil Untuk Mengatasi Kecemasan Saat Menjelang Persalinan.” *Prosiding Seminar Nasional dan CFP Kebidanan Universitas Ngudi Waluyo* 1(1): 353–60.
13. Kementerian Kesehatan Republik Indonesia. (2015). *Pedoman aktivitas fisik untuk anak sekolah*. Jakarta: Direktorat Jenderal Kesehatan Masyarakat, Kementerian Kesehatan Republik Indonesia.
14. Fatmarizka, Tiara et al. 2022. “Pregnancy Gymnastics Education at Posyandu Ceria Edukasi Senam Hamil Di Posyandu Ceria.” *The 16th University Research Colloquium 2022*: 397–402.
<http://repository.urecol.org/index.php/proceeding/article/view/2265/2226>.

15. Wulandari. 2018. “Hubungan Ketidaknyamanan Dalam Kehamilan Dengan Kualitas Tidur Ibu Hamil Trimester Iii Di Klinik Pratama Asih Waluyo Jati.” *Prosiding Seminar Nasional* 8: 31–40.
16. Prananingrum, Ratih, and Nur Hidayah. 2018. “The 8 Th University Research Colloquium 2018 Universitas Muhammadiyah Purwokerto TELAAH KRITIS TERHADAP PEMBIAYAAN MURABAHAH The 8 Th University Research Colloquium 2018 Universitas Muhammadiyah Purwokerto.” : 75–83.
17. Tria Nopi Herdiani, and Arta Uli Simatupang. 2019. “Pengaruh Senam Hamil Terhadap Kualitas Tidur Ibu Hamil Trimester III Di Wilayah Kerja Puskesmas Ratu Agung Kota Bengkulu.” *Journal for Quality in Women’s Health* | 2(1): 26–35.
18. Irma. 2017. “Pengaruh Senam Yoga Terhadap Kualitas Tidur Ibu Hamil Trimester III.” *Journal of Chemical Information and Modeling* 53(9): 1689–99.
19. Kwon, R. (2020). A systematic review: The effects of yoga on pregnancy. *Complementary Therapies in Clinical Practice*. <https://doi.org/10.1016/j.ctcp.2020.101200>
20. Corrigan, L., et al. (2022). Characteristics and effectiveness of pregnancy yoga interventions: A systematic review and meta-analysis. *BMC Pregnancy & Childbirth*, 22, Article 753. <https://doi.org/10.1186/s12884-022-04474-9>
21. Nadholta, P., Kumar, K., Saha, P. K., Suri, V., Singh, A., & Anand, A. (2023). Mind-body practice as a primer to maintain psychological health among pregnant women — YOGESTA: a randomized controlled trial. *Frontiers in Public Health*, 11, Article 1201371. <https://doi.org/10.3389/fpubh.2023.1201371>
22. Azward, H. (2021). Prenatal yoga exercise improves sleep quality in the third trimester of pregnant women. [Journal entry indexed in PubMed]. <https://pubmed.ncbi.nlm.nih.gov/34929826/>
23. Cunningham, O., & Brady, V. (2023). Women’s views and experiences of pregnancy yoga: A qualitative evidence synthesis. *Midwifery*, 127, Article 103857. <https://doi.org/10.1016/j.midw.2023.103857>