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ABSTRACT

A HOLISTIC APPROACH THROUGH MINDFULLNES MEDITATION AND POSITIVE AFFIRMATION AUDIO TO MANAGE ANXIETY AND IMPROVE SLEEP QUALITY AMONG PREGNANT WOMEN IN SEMARANG DISTRICT

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Introduction: Pregnancy is a critical period in a woman's life, often accompanied by physical, emotional, and hormonal changes. These changes can increase anxiety, particularly during the late trimesters, which may negatively affect sleep quality. Unmanaged anxiety and sleep disturbances can reduce maternal well-being and adversely impact fetal development. Non-pharmacological interventions based on complementary therapies are needed as safe, affordable, and easily applicable alternatives. Mindfulness meditation and audio positive affirmations are holistic approaches believed to effectively manage anxiety while improving sleep quality.

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

Methods: A quasi-experimental design with a pre-test and post-test control group was employed. The sample consisted of second- and third-trimester pregnant women selected through purposive sampling. Anxiety was measured using the Pregnancy Anxiety Rating Scale Questionnaire (PARSQ), and sleep quality was assessed with the Pregnancy Sleep Quality Questionnaire (PSQQ). Interventions were delivered routinely according to a structured protocol over several weeks. Data were analyzed using paired and independent t-tests.

Results: The findings indicated a significant reduction in anxiety levels (p < 0.05) and an improvement in sleep quality in the intervention group compared to the control group (p < 0.05).

Conclusion: Mindfulness meditation combined with audio positive affirmations is an effective holistic non-pharmacological intervention to reduce anxiety and enhance sleep quality in pregnant women. These results support the integration of complementary therapies into antenatal care to promote maternal well-being.

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

INTRODUCTION

Pregnancy is a complex physiological period during which women experience significant physical, hormonal, and psychological changes. This adaptation process requires not only bodily adjustments to support fetal development but also entails substantial emotional and mental challenges. During pregnancy, women frequently experience anxiety stemming from hormonal fluctuations, increasing physical discomfort, and concerns about the labor process, personal safety, and fetal health (Fairbrother et al., 2019). Perinatal anxiety can disrupt maternal quality of life and has 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 prevalence rates in developing countries reaching 25–30% due to social, economic, and limited access to mental health services. This high prevalence indicates that maternal anxiety represents a significant public health concern. In Indonesia, studies have reported that maternal anxiety often arises due to limited social support, inadequate information regarding labor, and previous high-risk pregnancies (Yulianti & Kusumawati, 2020).

In addition to anxiety, sleep disturbances are another common issue among pregnant women. Adequate sleep is a critical physiological need for maintaining physical and emotional balance. However, sleep quality tends to decline as pregnancy progresses. A meta-analysis by Sedov et al. (2021) revealed that over 50% of pregnant women experience poor sleep quality, particularly in the third trimester. Sleep disturbances may include difficulty initiating sleep, frequent nocturnal awakenings, or non-restorative sleep, influenced by hormonal changes, physical discomfort, frequent urination, and pre-labor anxiety. Anxiety and sleep disturbances have a bidirectional relationship: heightened anxiety can activate the sympathetic nervous system, disrupting sleep processes, while poor sleep quality exacerbates psychological distress, increasing the risk of perinatal anxiety and depression (Okun et al., 2018). If unaddressed, this negative cycle may adversely affect maternal health and fetal development, including preterm birth, low birth weight, and neuropsychological developmental issues in offspring (Ding et al., 2020).

Interventions to manage anxiety and sleep disturbances in pregnancy can be pharmacological or non-pharmacological. Pharmacological approaches have limitations due to potential fetal effects of sedatives or antidepressants and are generally not recommended for long-term use during pregnancy (Gentile, 2017). Consequently, non-pharmacological interventions have become a preferred approach in contemporary clinical practice. One such intervention gaining attention is mindfulness meditation, which emphasizes non-judgmental awareness of the present moment. Mindfulness helps individuals acknowledge and accept emerging thoughts, emotions, and bodily sensations with calmness and acceptance. Research indicates that mindfulness meditation effectively reduces stress and anxiety while improving sleep quality among pregnant women and the general population (Dhillon et al., 2017; Zhang et al., 2021). By focusing on the present, pregnant women can reduce excessive worry about the future, including pre-labor fears.

Another promising approach is audio-based positive affirmations, which consist of suggestive statements designed to cultivate optimism and reinforce positive self-beliefs. Regular exposure to positive affirmations can modulate cognitive and emotional processes, decreasing anxiety, enhancing self-confidence, and improving sleep quality (Aldridge & Hübner, 2020). Affirmations for pregnant women typically emphasize self-strength, labor preparedness, and confidence in fetal health. Integrating mindfulness meditation with audio positive affirmations may produce synergistic effects on maternal well-being. While mindfulness enhances moment-to-moment awareness, positive affirmations reinforce mental resilience by instilling confidence and optimism. This combination not only reduces anxiety and improves sleep but also strengthens maternal psychological readiness for labor.

In Indonesia, studies exploring the combined effects of mindfulness meditation and audio positive affirmations on pregnant women remain limited. Most antenatal interventions focus primarily on physical aspects, often neglecting psychological well-being. Yet, maternal mental health is a crucial component of safe motherhood, with lasting impacts on child development. Semarang Regency, Central Java, has a significant population of pregnant women, and reports from the Semarang Regency Health Office (2022) indicate that anxiety and sleep complaints are common concerns during antenatal care visits. However, non-pharmacological complementary interventions have yet to be widely integrated into primary healthcare services. This gap highlights the urgent need for research evaluating holistic interventions using mindfulness and positive affirmations. Evidence from such studies could support the implementation of safe, affordable, and easily applied psychosocial programs, with potential for wide adoption by healthcare providers and pregnant women themselves.

METHOD

This study employed a quasi-experimental design with a pretest-posttest control group approach. This design was chosen to evaluate the effectiveness of mindfulness meditation and audio-based positive affirmations in reducing anxiety and improving sleep quality among pregnant women in Semarang Regency. The study population comprised all pregnant women in their second and third trimesters who attended antenatal care at Bergas Community Health Center (Puskesmas Bergas), Semarang Regency. Participants were selected using purposive sampling based on the following inclusion criteria: (1) gestational age between 14 and 36 weeks, (2) normal hearing ability, (3) ability to use audio media via a mobile phone, and (4) willingness to participate by providing written informed consent. Exclusion criteria included pregnant women with severe medical complications, such as severe preeclampsia, or psychiatric disorders requiring specialized treatment. Based on these criteria, a total of 40 respondents were recruited, divided equally into an intervention group (n = 20) and a control group (n = 20).

The intervention for the experimental group consisted of a 25-minute audio-based positive affirmation, which participants listened to independently via personal audio devices twice daily, in the morning and evening, for seven consecutive days. In addition, participants received mindfulness meditation education sessions, instructing them on how to perform the technique independently. Meditation sessions were conducted twice daily, in the morning and before bedtime, for seven consecutive days. The control group received only routine antenatal care without additional interventions.

Outcome measures included the Pregnancy Anxiety Rating Scale Questionnaire (PARSQ) to assess anxiety levels and the Pregnancy Sleep Quality Questionnaire (PSQQ) to evaluate sleep quality. Both instruments had undergone empirical validation and reliability testing, including item analysis comparing the r-table with the r-count and reliability assessment using Cronbach's alpha. Data collection was conducted from May 17 to May 30, 2024. PARSQ assessed multiple dimensions of maternal anxiety, including concerns related to pregnancy, childbirth, and fetal condition, while PSQQ measured sleep quality. Both questionnaires were administered twice, before the intervention (pre-test) and after the seven-day intervention period (post-test).

Data were analyzed using SPSS software. Univariable analysis was conducted to describe respondent characteristics, while bivariate analysis was performed to evaluate the effectiveness of the intervention on anxiety and sleep quality. Paired t-tests were applied to examine within-group changes before and after the intervention, and independent t-tests were used to compare differences between the intervention and control groups. Ethical approval was obtained from the Ethics Committee of the Faculty of Psychology, Diponegoro University

(Approval No. 53/UN7.F11/PP/XI/2024), and written informed consent was obtained from all participants prior to the study.

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. Primigarvida	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 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.

Overall, 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.

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	
	Non Anxiety (0 – 36)	2 (10.0)	1 (5.0)	
	Low (37 – 72)	5 (25.0)	6 (30.0)	
Pre Test	Moderat (73-108)	8 (40.0)	7 (35.0)	
	High (109-144)	5 (25.0)	6 (30.0)	P>0.05
	Panic (145-180)	0 (0.0)	0 (0.0)	
	Total	20 (100%)	20 (100%)	
	Non Anxiety (0 – 36)	8 (40.0)	2 (10.0)	
	Low (37 – 72)	9 (45.0)	7 (35.0)	
Post Test	Moderat (73-108)	3 (15.0)	7 (35.0)	P<0.05
	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		P<0.05	*P>0.05*	

*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%), 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 < 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 > 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	
	Poor (19–24)	4 (20.0)	5 (25.0)	
	Fair (13–18)	13 (65.0)	12 (60.0)	
Pre Test	Good (7–12)	3 (15.0)	3 (15.0)	
	Very Good (0–6)	0 (0.0)	0 (0.0)	P>0.05
	Total	20 (100%)	20 (100%)	
	Poor (19–24)	0 (0.0)	4 (20.0)	
	Fair (13–18)	3 (15.0)	12 (60.0)	
Post Test	Good (7–12)	12 (60.0)	3 (15.0)	P<0.05
	Very Good (0–6)	5 (25.0)	1 (5.0)	
	Total	20 (100%)	20 (100%)	
**P value		P<0.05	P>0.05	

*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 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 > 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 < 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 > 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. The data revealed that, in the experimental group, there was an increased proportion of participants exhibiting low anxiety levels and good to very good sleep quality, whereas the control group showed no significant changes. These results align with previous studies highlighting the effectiveness of

non-pharmacological, psychologically and affirmatively based interventions for maternal well-being.

Research by Septi Kurnia (2019) and Siti Nurul Hidayah (2021) demonstrated that hypnobirthing significantly decreased anxiety in third-trimester pregnant women, with p-values ranging from <0.05 to 0.000. These findings suggest that relaxation techniques through self-hypnosis can mitigate physiological and psychological stress responses during pregnancy. Similarly, studies by Luluk (2020) and Dian (2021) confirmed the efficacy of hypnobirthing in reducing anxiety, while Lutfiana (2021) reported that combining hypnobirthing with prenatal yoga further enhanced positive emotional outcomes for pregnant women. These findings are relevant to our study because mindfulness practices operate on similar principles, enhancing self-awareness and emotional regulation to reduce anxiety (Kabat-Zinn, 2003).

In addition to hypnobirthing, mindfulness-based interventions have been widely evaluated. Beddoe et al. (2010) reported that the Mindfulness-Based Childbirth and Parenting (MBCP) program improved both sleep quality and sleep patterns in pregnant women. An Indonesian study (2025) applying Mindfulness-Based Cognitive Therapy (MBCT) to third-trimester pregnant women found a significant reduction in anxiety scores in the experimental group compared to controls (16.40 vs. 23.60). A meta-analysis by Examine.com (2025) and a review by MDPI (2025) confirmed that mindfulness programs effectively reduce maternal stress, anxiety, and depression, supporting our findings that mindfulness is a viable non-pharmacological strategy to enhance maternal well-being.

Evidence from positive affirmation interventions also corroborates these results. Laelatul Fadilah (2023) reported a significant decrease in anxiety among pregnant women with emesis gravidarum following positive affirmation practice. Rahayu (2020) demonstrated that flashcard affirmations helped reduce negative thoughts during labor, while Rahmawati (2012) highlighted that positive thought affirmation techniques reduced moderate anxiety from 53.3% to 6.7%. These findings align with our study, in which positive affirmation audio enhanced maternal positive mental attitudes, minimized anxiety, and indirectly improved sleep quality.

Furthermore, interventions combining physical relaxation and affirmations have shown effectiveness. Nurfadilah (2024) reported that combining endorphin massage with positive affirmations significantly reduced anxiety, emphasizing that holistic approaches integrating both physical and psychological relaxation techniques are more effective than single-method interventions. This is consistent with our study, as mindfulness meditation and positive affirmation audio collectively stimulate both cognitive-emotional relaxation and bodily relaxation, thereby enhancing sleep quality.

Theoretically, this approach aligns with Cognitive-Behavioral Theory and Mindfulness Theory, whereby present-moment awareness combined with positive suggestion facilitates emotional regulation and reduces physiological stress responses (Segal et al., 2013; Kabat-Zinn, 2003). Consequently, our findings strengthen the evidence that interventions based on mindfulness and positive affirmation are effective strategies for reducing anxiety and improving sleep quality among pregnant women, particularly during the third trimester, a period vulnerable to emotional disturbances and sleep disruption.

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.

REFERENCES

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.

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

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*.

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

Lutfiana Puspita Sari. (2021). Hypnobirthing and prenatal yoga for maternal anxiety reduction. *Jurnal Poltekkes Gorontalo*.

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.smrv.2020.101379

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*.

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*

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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Disorders", Routledge, 2024
Publication

8 Fatemeh Soltanifar, Ehsan Ebrahimibasabi, Mohammad Mahdi Shahidi. "Gamma Radiation Effects on SiC Nanopowders: Structural, Morphological, Optical and Electrical Evolution", Ceramics International, 2025
Publication

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