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Research Article

The Effect of Yoga Exercise on the Sleep Quality of Trimester III Pregnant Women

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Abstract

Aims: Pregnancy is a special situation for a woman as a prospective mother, because during pregnancy there will be many changes. Entering the third trimester, physical and psychological changes occur. This condition causes pregnant women to experience sleep disturbances. The purpose of this study was to determine the effect of yoga exercise on the sleep quality of third trimester pregnant women at BPM Nurmala Cibarusah.

Methods : This study employs a pre-experiment one group pre-post test design. This study's population included all pregnant women aged 28-36 weeks at BPM Nurmala Cibarusah, with a total of 20 pregnant women and a total sample of 20 pregnant women utilizing a proportional random sampling technique. The independent variable is yoga exercise, while the dependent variable is third trimester pregnant women's sleep quality. The PSQI was employed as the study instrument, and the Willcoxon statistical test ($\alpha = 0.05$) was used to analyze the results.

Results : According to the findings of this study, 19 pregnant women (95.0%) had poor sleep quality prior to the implementation of yoga, but the quality of sleep improved to 19 pregnant women (95.0%) after the implementation of yoga. The Willcoxon test yields $p=0.000$, indicating that $p < 0,05$, i.e. H_1 , is accepted.

Conclusions : The conclusion from the results of this study indicates that there is an effect of yoga exercise on the sleep quality of third trimester pregnant women at BPM Nurmala Cibarusah.

Keywords:

Quality of sleep for third trimester pregnant women, yoga

INTRODUCTION

Health is an important thing to pay attention to and maintain, both physical, mental and social health to achieve harmonious conditions. According to WHO (The World Health Organization), health is a condition that is complete physically, mentally and socially, besides that there are no diseases or weaknesses. The definition of healthy is not only related to the physical, but also related to psychological health. and achieve social welfare (1).

Beginning with fertilization, a pregnancy continues through the stages of growth and

development that characterize a term fetus, and finally concludes with the delivery of the baby. (2) A woman's body and mind will go through transformations. Fear and rejection of pregnancy are common issues we encounter when working with pregnant women in the field of psychology. Because pregnant women have heard stories about pregnancy and childbirth from people around them, they may experience physical symptoms such as an expanded abdomen, movement/hyperpigmentation, colostrum secretion, and so on, or they may experience anxiety. Women expecting their first child or their fifth will both experience increased

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anxiety and worry during pregnancy, according to research by (3).

Difficulty sleeping in pregnant women is caused by feelings of anxiety and panic related to changes in parental responsibilities. Sleep disturbances during pregnancy occur during the 1st and 3rd trimesters. Efforts to overcome sleep difficulties include exercise, taking drugs that are safe for pregnant women, hypnotherapy, sleep education and relaxation exercises. conducted research on aerobic exercise combined with sleeping education to treat sleep disorders(4). Of the 20 pregnant women who participated, the results showed that aerobic exercise and sleeping education had a beneficial effect on sleep disturbances or insomnia. Sports that are intended for pregnant women are sports that are safe for their pregnancy. This exercise can be individual, such as morning walks or group sports, such as pregnancy exercise. The most suitable type of exercise for pregnant women is pregnancy exercise(5).

Pregnant women can safely and effectively practice yoga to maintain their fitness and prepare for childbirth because almost any yoga pose can be adapted to meet the needs and abilities of the pregnant woman. Yoga also increases a woman's muscle strength and flexibility and teaches her to tune into her own body(6). The positive effects of yoga are very beneficial for pregnant women, by doing the movements of yoga, it will be able to reduce stress, anxiety and low back pain throughout pregnancy from the first trimester of pregnancy to the third trimester. Yoga exercises can also reduce pain during labor and can shorten the 2nd stage of labour. Yoga exercises consist of five methods, namely breathing techniques, mindful warm-up, core prenatal yoga movements, mindful relaxation and meditation. Yoga exercises are recommended during pregnancy. Entering the third trimester, namely 28-36 weeks of pregnancy (7).

Yoga exercises focus on breathing techniques that are useful for balancing the

energy of the body and mind, and as a bridge of communication between the expectant mother and the fetus she is carrying and relieve discomfort during pregnancy such as nausea, fatigue, heartburn, anxiety, insomnia, low back pain and leg cramps (8).

Pregnant women who have poor sleep quality can cause several complications in pregnancy, as in research conducted, which states that sleep disturbances that occur in pregnant women can exacerbate the body's inflammatory response and cause excess production of cytokines. (9)Cytokines are molecules associated with immune cells. When the body experiences an excess of cytokines it can interfere with the spinal arteries leading to the placenta, causing vascular disease, and premature birth. 79% of pregnant women experience some form of sleep disturbance. As many as 72% of pregnant women will experience more frequent awakenings at night. Generally, adults need 7-8 hours of sleep, but pregnant women can get up to 10 hours. This depends on the age when the mother was pregnant and the stamina felt by the mother. Good quality sleep will maintain the mother's health during pregnancy and provide enough energy during labor (10).

Based on the background above, the researcher is interested in conducting research entitled The effect of yoga exercise on the quality of third trimester pregnant women in (BPM).

METHODS

This study employs a pre-experiment one group pre-post test design. This study's population included all pregnant women aged 28-36 weeks at BPM Nurmala Cibarusah, with a total of 20 pregnant women and a total sample of 20 pregnant women utilizing a proportional random sampling technique. The independent variable is yoga exercise, while the dependent variable is third trimester pregnant women's sleep quality. The PSQI was employed as the study instrument, and the Willcoxon statistical test ($\alpha = 0.05$) was used to analyze the results.

RESULTS

Table 1. Frequency distribution of the sleep quality of pregnant women in their third trimester before carrying out yoga exercises at BPM Nurmala Panjaitan Cibarusah on 19 October - 02 November 2022

	Pretest	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor sleep quality	19	95.0	95.0	95.0
	sleep quality is good	1	5.0	5.0	100.0
	Total	20	100.0	100.0	

Table 1 demonstrates that out of a total of 20, nearly all (nineteen of the nineteen pregnant women, or 95.0%) experienced subpar sleep. Table 2 shows the frequency distribution of how well pregnant women slept after practicing yoga throughout the third trimester.

	Posttest	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	sleep quality is good	19	95.0	95.0	95.0
	Poor sleep quality	1	5.0	5.0	100.0
	Total	20	100.0	100.0	

Table 2 shows that out of 20 respondents, almost all respondents had good sleep quality, namely 19 pregnant women (95.0%), while 1 pregnant woman (5.0%) had not experienced any changes or had poor sleep quality.

Table 3. Frequency distribution of the influence of yoga exercise on the sleep quality of third trimester pregnant women

No	Sleep quality	Before giving		After giving	
		Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
1	Good	1	5,0	19	95,0
2	Not good	19	95,0	1	5,0
	Total	20	100	20	100

Wicoxon statistical test results P= 000

Based on table 3, it can be seen that of the 20 pregnant women surveyed prior to yoga practice, nearly all had poor sleep quality, a total of 19 respondents (95.0%), and that after yoga practice, nearly all had good sleep quality, an increase of 19 pregnant women (95.0%). Based on statistical analysis using the Wilcoxon test with SPSS 21 and a significance level of $\alpha = 0.05$, the results obtained were $p = 0.000$, which means that $p < 0.05$, i.e. H1 is accepted, indicating that yoga exercise has an effect on the sleep quality of pregnant women in their third trimester at BPM Nurmala Panjaitan Cibarusah.

DISCUSSION

Pregnant women who are offered yoga have a 95.0% chance of getting a good night's rest, as measured by the average difference in sleep quality between the two groups. Table 1 shows the mean difference in mothers' sleep quality before and after therapy, and table 3 shows that this difference is statistically significant ($p=0.0001$). Before yoga, 95% of the women in the group reported having poor sleep quality. The significance of the difference in typical sleep quality supports this conclusion. This indicates that the average difference in sleep quality between third-trimester pregnant women who practice yoga and those who do not is statistically significant, suggesting that yoga has an influence on sleep quality in this population.

Previous studies corroborate the benefits of prenatal gentle yoga for mothers in their third trimester of pregnancy, such as that published by (11). Results from the statistical test showed a significant difference in pregnant women's complaints before and after antenatal yoga was conducted ($p = 0.005$). This is according to a study done in 2020 (12). This is Aprina's second study. Whether or not postpartum yoga improves sleep quality for new mothers. The statistical analysis yielded a p -value of 0.05, suggesting that postnatal yoga improves the sleep of new moms.

CONCLUSION

There is an effect of yoga on improving the sleep quality of third trimester pregnant women. It is hoped that pregnant women in their third trimester can improve their sleep quality, one of which is by applying yoga during pregnancy by carrying out movements that begin with a warm-up movement, core yoga exercises and end with guided breathing relaxation which is carried out 1 week twice in the morning or evening with the principle of safety. and comfortable so that the body feels fresh and the quality of sleep will increase in pregnancy.

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