

THE EFFECT OF PREGNANT GYSTERN WITH INCREASED SLEEP QUALITY IN PREGNANT MOTHERS TRIMESTER III AT LYDIA SIFRA'S CLINIC

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ABSTRACT

Pregnancy exercise is one of the options for non-pharmacological therapy so that it can have an impact on improving sleep quality. The choice of using non-pharmacological methods is more appropriate in treating sleep disorders in pregnant women. The purpose of this research was to analyze the effect of pregnancy exercise with improving sleep quality in third trimester pregnant women at Lydia Sifra Clinic. This research used quasi-experimental by using a one group pretest posttest design. Population in this research was all pregnant women in the third trimester with a gestational age of 28-36 weeks at the Lydia Sifra Clinic was 48 pregnant women. The sample of this research were 32 respondents with purposive sampling technique. The obtained data then processed used Mc Nemar test. The Instrument of this research, used PSQI questionnaire was used to measure sleep quality and an observation sheet for exercise for pregnant women. The results of research showed there was effect of pregnancy exercise on improving the sleep quality of pregnant women in the third trimester at Lydia Sifra Clinic, with a p value of 0.000 (> 0.05). Advice for pregnant women is expected that pregnant women in the third trimester can do pregnancy exercises once a week so that the quality of sleep will increase. And for further researchers, it is hoped that they can develop by adding factors that can affect sleep quality such as the level of anxiety and activity of pregnant women.

Keywords: Pregnancy Exercise, Sleep Quality.

BACKGROUND

The third trimester of pregnancy requires special attention because the gestational age is increasing. Changes during pregnancy can trigger discomfort for pregnant women (Suryani and Handayani, 2018). According to Sukorini (2017), when approaching the time of delivery, pregnant women will find it difficult to adjust their sleeping position. This disorder can be caused by the greater the pregnancy so that the diaphragm will be pushed up and interfere with breathing. Pregnant women are advised to sleep on their left side or a position that makes pregnant women comfortable.

The National Sleep Foundation (2007) states that 97.3% of pregnant women in the third trimester always wake up at night and an average of about 78% of pregnant women in America experience sleep disorders. According to Reichner (2015) said that disturbed sleep patterns in the first trimester were 13%, in the second trimester 19% and increased in the final trimester by 66%. Alfonso and Pastor (2012) said that 73.5% of 39 weeks pregnant women experienced mild insomnia (50.5%), moderate insomnia (15.7%) and severe insomnia (3.8%).

Pregnant women are recommended to do light exercise during pregnancy so that the womb is healthy and reduces the problems that usually arise during pregnancy such as edema, hypertension, low back pain, shortness of breath, varicose veins, spasms, insomnia and other problems. One of the lightest exercise options that can be taken by pregnant women is pregnancy exercise (Kemenkes, 2014). Pregnancy exercise is one of the options for non-pharmacological therapy so that it can have an impact on improving sleep quality. The choice of using non-pharmacological methods is more appropriate in treating sleep disorders in pregnant women, because the use of this method has less side effects than pharmacological methods (Golmakani, 2015).

Research conducted by Sufi, et al (2018) stated that as many as 14 pregnant women were given pregnancy exercise interventions for 6 meetings in three weeks, the results showed that there was an effect of pregnancy exercise on the sleep quality of pregnant women with an average poor sleep quality before the intervention. 12.43 after the pregnancy exercise intervention, the average poor sleep quality decreased to 6.43.

Pregnancy exercise can have a positive influence, especially on the quality of maternal sleep during pregnancy. This is because pregnancy exercise is an exercise for pregnant women that aims to help the abdominal wall muscles become elastic during uterine enlargement, improve the physical balance of pregnant women, help improve the mother's correct position during pregnancy and also improve maternal blood circulation thereby increasing maternal comfort. during pregnancy (Kemenkes RI, 2010).

RESEARCH METHODS

This type of research uses the study quantitative research with quasi-experimental methods by using a one group pretest posttest design. The population in this study is all Third trimester pregnant women with gestational age 28-36 weeks at Lydia Sifra Clinic, Kudus Regency as many as 48 pregnant women. With the number of research samples 32 respondents with purposive sampling technique. The data was processed using the Mc Nemar test. In this study, the PSQI questionnaire was used to measure sleep quality and an observation sheet for exercise for pregnant women.

RESULTS

Table 1 Frequency Distribution by Maternal Age

Mother's Age	Frequency (f)	Percentage (%)
Age < 20 Years	2	6.3
Age 20-35 Years	26	81.3
Age > 35 Years	4	12.5
Total	32	100.0

Table 1 shows that the majority of pregnant women are aged 20-35 years, namely 26 respondents (81.3%), and a few, namely maternal age <20 years, there are 2 respondents (6.3%).

Table 2 Frequency Distribution Based on Maternal Pregnancy

Ke . pregnancy	Frequency (f)	Percentage (%)
1	12	37.5
2	15	46.9
3	3	9.4
4	2	6.3
Total	32	100.0

Table 2 shows that the majority of mothers with a second pregnancy are 15 respondents (46.9%), and a few are mothers with a fourth pregnancy, there are 2 respondents (6.3%).

Table 3 Frequency Distribution Based on Pregnancy History

Pregnancy History	Frequency (f)	Percentage (%)
Normal	15	46.9
Caesar	3	9.4
Abortion	2	6.3
No History	12	37.5
Total	32	100.0

Table 3 shows that the majority of pregnancy history is normal, there are 15 respondents (46.9%), while the least is abortion, there are 2 respondents (6.3%).

Table 4 Frequency Distribution by Gestational Age

Gestational Age	Frequency (f)	Percentage (%)
28 weeks	5	15.6
29 weeks	2	6.3
30 weeks	5	15.6
31 weeks	1	3.1
32 weeks	6	18.8
33 weeks	2	6.3
34 weeks	3	9.4
35 weeks	4	12.5
36 weeks	4	12.5
Total	32	100.0

Table 4 shows that the majority of gestational age is 32 weeks there are 6 respondents (18.8%), while the least is 31 weeks gestation there is 1 respondent (3.1%).

Table 5 Frequency Distribution Based on Last Education

Last education	Frequency (f)	Percentage (%)
JUNIOR HIGH SCHOOL	2	6.3
SENIOR HIGH SCHOOL	19	59.4
College	11	34.4
Total	32	100.0

Based on table 5, the results of the study show that the majority of the last education, namely high school, had 19 respondents (59.4%), while the least, namely junior high school, there were 2 respondents (6.3%).

Table 6 Frequency Distribution by Occupation

Work	Frequency (f)	Percentage (%)
Housewife	12	37.5
Self-employed	3	9.4
Private	17	53.1
Total	32	100.0

Based on table 6, the results of the study show that the majority of jobs are private sector, there are 17 respondents (53.1%), while the least, namely self-employed, there are 3 respondents (9.4%).

Table 7 Results of Sleep Quality Values Before Pregnancy Exercise

Sleep Quality	Frequency (f)	Percentage (%)
Well	9	28.1
Bad	23	71.9
Total	32	100.0

Based on the table above, before doing pregnancy exercise, 9 respondents (28.1%) had good sleep quality, while 23 respondents (71.9%).

Table 8 Results of Sleep Quality Values After Pregnancy Exercise

Sleep Quality	Frequency (f)	Percentage (%)
Well	27	84.4
Bad	5	15.6
Total	32	100.0

Based on the table above, after doing pregnancy exercise, 27 respondents (84.4%), good sleep quality was obtained, while 5 respondents (15.6%) had poor sleep quality.

Table 9 The Effect of Pregnancy Exercise with Improved Sleep Quality

	Sleep Quality After Pregnancy Exercise		Total	P	
	Well	Bad			
Sleep Quality Before Pregnancy Exercise	Well	9	0	32	0.000
	Bad	18	5		

Based on the results of the study in table 9, it was found that there were 9 respondents with good quality before pregnancy exercise was carried out and after pregnancy exercise was carried out. Respondents with good sleep quality before pregnancy exercise and after poor pregnancy exercise were not found. Respondents with poor sleep quality before pregnancy exercise and good after pregnancy exercise were 29 people. Respondents with poor sleep quality before pregnancy exercise and good after pregnancy exercise were 4 people. Bivariate results using Mc Nemar's test obtained p value 0.000 (> 0.05) which means that there is an effect of pregnancy exercise with increasing sleep quality in third trimester pregnant women at Lydia Sifra Clinic.

DISCUSSION

Quality of Sleep for Pregnant Women in the Third Trimester Before the Implementation of Pregnancy Exercises

Based on the results of the study, it was found that from 32 respondents who experienced poor sleep quality, 23 respondents (71.9%). In this study to measure sleep quality using the PSQI (Pittsburgh Sleep Quality Index). The PSQI questionnaire contains 7 parameters in assessing sleep quality. Based on the tabulation of the data contained in Appendix 6, it shows that the average per parameter is subjective sleep quality (1.5938), sleep latency (1.78125), sleep duration (2.125), sleep efficiency (1.9375), disturbances when sleeping at night (1.65625), using sleeping pills (0.59375), and disruption of daytime activities (0.75).

Of the 7 parameters before pregnancy exercise, the most common parameter for pregnant women is the length of sleep. This is related to the number of questions number 4. From question number 4 out of 32 respondents, 18 respondents answered less than 5 hours. Most of the respondents stated that in the third trimester of pregnancy, pregnant women often wake up at night because of the increased frequency of urination, uncomfortable sleeping positions, and often overheating.

The majority of respondents experienced poor sleep quality, before doing pregnancy exercise, one of the factors that influenced it was gestational age. The results showed that there were 4 respondents with a gestational age of 36 weeks. The older the gestational age, it can also cause the mother to be uncomfortable sleeping and the quality of sleep to be poor. This is in line with the statement of Reeder et al (2011) that along with advancing gestational age, the stomach will contract or active fetal movements such as kicking so that the mother feels uncomfortable and has difficulty sleeping at night.

Supported by research by Wulandari & Nonik (2020) which states that third trimester pregnant women whose sleep duration is less than 5 hours occur because of sleep disturbances in the form of breathing disorders, nerve disorders in the legs, urination and difficulty finding a comfortable sleeping position. According to Putri (2018) pregnant women who sleep less than 5 hours are at risk of increasing blood pressure and can cause hypertension.

Quality of Sleep for Pregnant Women in the Third Trimester After Pregnancy Exercise

Based on the results of the study, it was found that out of 32 respondents experienced good sleep quality, as many as 27 respondents (84.4%) while respondents with poor sleep quality were 5 respondents (15.6%). Of the 7 parameters for assessing sleep quality after the implementation of pregnancy exercise, appendix 7 shows that the assessment of sleep quality for pregnant women in the third trimester has decreased. Before doing the exercise the average was 1.65625 and after the exercise the average was 0.125 with a decrease of 1.53125.

After carrying out pregnancy exercises for 6 times in 3 weeks, pregnant women in the third trimester experienced an increase in sleep quality. This is evidenced by the average results of disturbances when sleeping at night there is a considerable decrease. Disturbances when sleeping at night such as waking up in the middle of the night, waking up to go to the bathroom, unable to breathe freely, coughing or snoring, cold at night, overheating at night, nightmares, pain and other reasons can be reduced after pregnancy exercise.

The decrease in frequency is due to the body's physiological response. Pregnancy exercise can have a relaxing effect on pregnant women which can affect the duration of sleep for pregnant women, besides that it can train good and correct posture during pregnancy to prevent back pain complaints, waist, and leg cramps, and pregnancy

exercise also maintains and strengthen the flexibility of the abdominal muscles, abdomen and thighs (Wahyuni, 2013).

Pregnancy exercise has many benefits and advantages for pregnant women, especially in third trimester pregnant women, according to research by Rahayu & Hastuti (2018) explaining that regularly doing pregnancy exercise is one very useful way to eliminate complaints during pregnancy including improving circulation and respiration, can adjust the body to support the load, and strengthen the muscles in the body.

In addition, the results of research conducted by the results of the analysis of research by Marwiyah & Sufi (2018) show that giving pregnant exercise can have a positive influence, especially on sleep quality. This is because pregnancy exercise aims to help the abdominal wall muscles become elastic during uterine enlargement and improve the physical balance of pregnant women.

The Effect of Pregnancy Exercises with Improving the Quality of Sleep for Pregnant Women in the Third Trimester

The results showed that respondents with good sleep quality before pregnancy exercise and poor sleep quality after pregnancy exercise were not found due to the enthusiasm of respondents in participating in pregnancy exercise in the third trimester of pregnancy. This is supported by research from Palifiana & Wulandari (2018) with the results of research that the dominant factor that affects the quality of pregnant women in the third trimester is the participation of pregnant exercisers.

Movements in pregnancy exercise starting from warming up, gymnastics for the waist and knees and stretching or cooling down (Kemenkes, 2014). The movements in pregnancy exercise can make the muscles of the body parts of pregnant women comfortable and relaxed, resulting in an increase in the quality of sleep for pregnant women in the third trimester. According to Oktora (2013) pregnancy exercise is a progressive muscle relaxation that can provide emotional balance and peace of mind for pregnant women, so that mothers can prepare for childbirth without feeling tension and anxiety.

Based on the results of the study, it showed that the bivariate results using the Mc Nemar test obtained p value 0.000 (> 0.05), which means that there is an effect of pregnancy exercise with increasing sleep quality in third trimester pregnant women at Lydia Sifra Clinic. Research conducted by Herdiani & Simatupang (2019) found that there were differences in the sleep quality of third trimester pregnant women who did not do gymnastics, and those who did pregnancy exercise, so that there was a significant effect of pregnancy exercise on the sleep quality of third trimester pregnant women ($p = 0.000$). In addition, research conducted by Lestari, Rufaida & Susanti (2021) also showed that there was an effect of pregnancy exercise on improving the sleep quality of third trimester pregnant women at the Sooko Health Center, Mojokerto Regency ($p = 0.04$).

CONCLUSION

The majority of sleep quality before pregnancy exercise was poor, namely 23 respondents (71.9%). The majority of sleep quality after pregnancy exercise was good by 27 respondents (84.4%). There is an effect of pregnancy exercise with improving the quality of sleep of pregnant women in the third trimester at the Lydia Sifra Clinic.

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