

THE EFFECTS OF PRENATAL GENTLE YOGA AND DHIKR ON THE SLEEP QUALITY OF PREGNANT WOMEN IN URBAN AND RURAL AREAS

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Abstract

Sleep is physiological process for physical and mental health in pregnant women. Exercise with prenatal Gentle Yoga And Dhikr is necessary. This study aim to determine the effect of Prenatal Gentle Yoga And Dhikr on sleep quality among pregnant women in Urban and Rural areas. Methods: This study was quantitative research with quasy experimental design. The research was conducted at Bajeng and Kassi-Kassi Primary Health Centre. There were 30 pregnant women who participated that were selected using a purposive sampling technique. Data were analized using friedman test and general linier model to determine differences between rural and urban groups. Results: There was an effect of prenatal gentle yoga and dhikr on sleep quality p (0.000). There is a difference in the effectiveness of prenatal gentle yoga and dhikr in rural and ruban areas p (0.007). Conclusions: Prenatal Gentle yoga with dhikr is an effective interventions to improve sleep quality.

Keywords: Prenatal Gentle Yoga, Sleep Quality, Pregnant Women

Introduction

Pregnancy is an important step in a woman's life. During pregnancy, the mother will experience many changes both physically, psychologically, socially and spiritually (Ngai FW, 2011). The physical changes of pregnant women can be seen from changes in body shape, weight gain along with the increasing size of the mother's womb, psychologically the mother's feelings are easily volatile, sensitive, easily stressed, crying, anxious. Another change, which is also often experienced by mothers is sleep quality.

Sleep is a physiology human need which is a basic health variable that can affect the quality of life. One of the factors that can affect sleep quality is pregnancy (Moline, 2003 in (Rhomadona & Primihastuti, 2021). Sleep quality decreases with increasing gestational age. Pregnancy conditions can affect sleep quality due to hormonal changes such as FSH, LH, and progesterone which play an important role in the construction of sleep in women (Kizilirmak et al., 2012).

Sleep disturbance is a common problem among pregnant women (Azward et al., 2021). Sleep disturbance can be increase as increase of gestational age. it can lead to an increased risk of gestational hypertension, diabetes, prematurity, and postpartum depression. Sleep disturbances can also cause depression and stress that affects the fetus. Mild stress causes an increase in fetal heart rate, thus make the baby wil hyperactive. (Rhomadona & Primihastuti, 2021). Maternal exercise can reduce this problem. Maternal exercise is an exercise that can be done by pregnant women with the aim of distracting the mother's attention, reducing anxiety and pressure levels, making the mind calmer, increasing sleep quality, reducing constipation and stimulating appetite. (Kamariyah, Anggasari & Mufliah, 2014).

Prenatal gentle yoga is a modification of basic yoga movements which are then adapted to the condition of pregnant women by setting a slow movement tempo. Elements in prenatal gentle yoga that can help reduce complaints of sleep disturbances are in the relaxation and meditation section. The results of research conducted by (Ismiyati & Faruq, 2020), show that there is an effect of gentle yoga prenatal exercise on sleep quality in pregnant women, where there is an increase in the average quality of sleep before and after the test. These results are in line with research conducted by (Kundarti, et al, 2020) which showed an increase in sleep quality after doing yoga regularly. Several studies have combined prenatal gentle yoga with other interventions in overcoming various problems in pregnancy, including inhalation therapy, aromatherapy (Rhomadona & Primihastuti, 2021). The research in this study developed another combination of Yoga, it combined with Dhikr therapy. Dhikr in Islam is worship that also has a therapeutic effect (Pertama et al., 2017). Emotionally, dhikr can increase calm, positive emotions, feelings of love, happiness, enjoyment, self-surrender (Subandi, 2009). In Amaliyah (2014), dhikr also has a relaxing effect. This further strengthens the effect of gentle yoga prenatal exercise, so it is suspected that it will be more effective in overcoming sleep rest disorders in pregnant women.

Prenatal Gentle Yoga is one of the newly developed interventions in South Sulawesi. Thus, not all pregnant women ever know this exercise, especially people in rural areas. A preliminary study that were conducted at the Bajeng Health Center, Gowa Regency, showed that >90% of 35 pregnant women said they did not know about yoga. Based on this, the researcher is interested in learning the effect of prenatal gentle yoga on sleep quality of pregnant women in rural and urban areas

Methods

This study is a quantitative study with a quasi-experimental design (non-equivalent group). The study was conducted at the Bajeng Health Center (rural) and the Kassi-Kassi Health Center (urban) from June to July 2022. A total of 30 pregnant women who participated in this study were selected using a purposive sampling technique. The inclusion criteria were mothers with a gestational age of 20 weeks and above and without pregnancy complications. Before the intervention, the quality of sleep of pregnant women was measured, then a prenatal gentle yoga intervention combined with dhikr was given, then the quality of sleep of pregnant women was measured after the intervention using a standard sleep rest assessment sheet (PSQI) which had been tested for validity and reliability previously. Prenatal gentle yoga and dhikr interventions were given 3 times a week with a duration of 10-15 minutes per exercise. then Maternal sleep rest was measured using PSQI which has 19 items categorized into seven components: subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbance, use of sleeping medication, and daytime dysfunction during the past month, Each component is scored ranging from 0 to 3 and then gets a global score with an interval of 0 to 21. Data were analyzed using SPSS ver 26 with the Friedman test to determine the effectiveness of the intervention and a general linear model to determine the differences between rural and urban groups. before the intervention was carried out, an ethical permit application was submitted with No. C.74 / KEPK / FKIK / II / 2022.

Results

Socio-demographic characteristics of participants

Table 1. Socio-demographic characteristics of participants by age, gestational age, educational status, parity, and trimes areas, 2022(n = 30).

Variables	Primary Health Centre				Median	Min-max	Median	Min-max
	Rural (n)	%	Urban (n)	%				
Age					28	(20-48)	30	(20-38)
Gestational age					29	(21-34)	28	(20-36)
Educational status								
a. High								
b. Low	11	73,3	11	73,3				
	4	26,7	4	26,7				
Paritas								
a. Primipara	5	33,3	10	66,7				

b. Multipara	10	66,7	5	33,3
Trimester				
a. Second	6	40	8	53,3
b. Third	9	60	7	46,7
Years of Treatment				
2022				
2021				
2020				

In this study 30 participants were assessed. The median age of participants was 28 years, the youngest age is 20 years and the oldest is 48 years, while at the Kassi-Kassi Health Center which is an urban area, the average age of pregnant women is 30 years (20-38). Based on the level of education, the majority of pregnant women in both locations had a low level of education, 11 people (73.3%). Low education referred to in this study is elementary to high school, while the bachelor and magister levels are included in the higher education category.

The average gestational age of the mother was 29 weeks at the Bajeng Health Center and an average of 28 weeks at the Kassi-Kassi Public Health Center. More pregnant women were in the 3rd trimester than the 2nd trimester at the two study sites. For parity, the majority of primiparous pregnant women at the Kassi-Kassi Health Center were 10 people (66.7%), while at the Bajeng Health Center, the majority of multiparous pregnant women were 10 people (66.7%).

Tabel 2. Sleep quality among pregnant women in rural and urban areas before and after intervention, 2022 (n = 30).

Variabel	Urban Median (min-max)	P value	Rural Median (min-max)	P value
Sleep quality pre	10(6-21)		10(6-20)	
Sleep quality after first intervention	8(2-18)	0.000	5(2-12)	0.000
Sleep quality after second intervention	6(2-10)		2(1-7)	

Source: Data primer, 2022.

Table 2 showed a description of the sleep quality of pregnant women in rural and urban areas before and after interventions. Based on the table above, it is known that the average sleep quality of pregnant women before the intervention is the same between rural and urban areas, namely 10. Meanwhile, after the intervention, there is a difference in mean, where the average value of sleep quality of pregnant women in rural areas is higher than urban areas, both the first and second interventions respectively. 8 (2-18) post intervention 1, 6 (2-10), post the second intervention. In the table above, it is also known that there are differences in sleep quality before and after the intervention in rural and urban areas with a p value of 0.000 in both groups.

Tabel 3. General linear model analysis, differences in sleep quality of pregnant women in rural and urban areas, 2022.

Variabel	Urban Mean(SD)	Rural Mean (SD)	CI (95%)	P value
Sleep quality pre	11.2(4.96)	10.93(4.70)	-0.267(-3.880-3.34)	0.881
Sleep quality after first intervention	6.33(2.80)	7.67(3.88)	-1.33(-3.86-1.19)	0.290

Sleep quality after second intervention	3.27(1.67)	5.60(2.60)	-2.33(-3.96—0.70)	0.007
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Based on the table 3, it is known that there are differences in sleep quality in the two groups before and after the intervention. It is showed that there is no difference in sleep quality between pre and post intervention 1 which the p value is 0.881 and 0.290, respectively, but there is a difference in the sleep quality of pregnant women after the second intervention, with p value 0.007.

Discussion

Sleep quality of pregnant women before prenatal gentle yoga and dzhikr therapy at Rural and Urban Areas

Based on the results of research conducted by researchers on 30 pregnant women both urban and rural area with the provision of PQSI questionnaires in the form of questions. Table 4.2 shows that almost all pregnant women have poor sleep quality. This is in accordance with research (Marwiyah & Sufi, 2018) which discusses the effect of pregnancy exercise on the quality of sleep of pregnant women in the trimester II and III in Kelurahan Margayu, at Kassi-Kassi Public Health Center. Sleep quality is a measure where a person can start sleeping easily, is able to maintain the quality of sleep and feel relaxed after waking up from sleep. Sleep quality affects the overall health and quality of life (Delaune & Ladner, 2011). The sleep quality of women during pregnancy is influenced by the physical and psychological changes they undergo. Psychological changes experienced by pregnant women are more likely caused by excessive anxiety, worry and fear without cause, and eventually it leads to depression so that the quality of sleep is disrupted. This mental condition causes the body muscles to stiffen, especially the muscles in the birth canal will become stiff and hard so that it disturbs the opening process of the birth canal. In addition, pregnant women who experience sleep disorders will be more slow in facing stimuli and difficult to concentrate (Mirghaphorvand, et al. 2017).

Result of interviews with some pregnant women in both urban and rural areas shows that the factors causing sleep disorders are frequent awakening for urination, pain in the back and the inconvenience of sleeping position caused by an abdominal swelling. Pregnant women also say that when awakened for urination, they will have trouble getting back to sleep again.

This study is in accordance with research (Marwiyah & Sufi, 2018). It says that physiologically, the complaints of sleep experienced by pregnant women are caused by fetal growth and movements that can suppress the bladder so that it can increase the frequency of urination and the body weight which can change the backbone structure which make them uncomfortable in waist area, and they often suffer cramps in extrimity part. This condition can also cause psychological changes in pregnant women, which sometimes the physical changes they experience can cause anxiety, and concerns when facing labor. This can sometimes affect the sleep quality of pregnant women.

Sleep quality of pregnant women after prenatal gentle yoga and dzhikr therapy at the Bajeng and Kassi-Kassi Public Health Center Rural and Urban areas

In this study, after pregnant women in urban area doing prenatal gentle yoga and dhikr therapy, there was an increase in sleep quality namely the first post with a score of 8 and the second post with a score of 6. Meanwhile, in the rural area, the first post get a score of 5 and the second post get a score of 2. It shows that prenatal gentle yoga and dhikr therapy have a significant influence on the sleep quality of pregnant women.

This study is in accordance with research (Ronalen et al., 2022). The improvement in sleep quality obtained after performing prenatal gentle yoga exercises 3 times in 12 days can be proven by 7 sleep quality parameters whose values are getting smaller. According to researchers, the improvement in sleep quality in pregnant women can be caused by an increase in comfort, peace, and calm in performing prenatal gentle yoga exercises, however, in parameter number 5 there are disturbances during sleep at night such as waking up to urinate, not being able to breathe freely and feeling pain as a physiological body response. The improvement in sleep quality in pregnant women who routinely do prenatal gentle yoga is caused by yoga movements bringing positive energy so that the body becomes relaxed, fresh and the soul is calm. From a physiological perspective, various yoga movements have a positive effect on blood circulation, facilitate the absorption of nutrients, cleanse toxins from various parts of the body, while from a psychological perspective, prenatal gentle yoga can improve concentration, focus, and increase mental balance and a sense of satisfaction.

Researchers have an assumption that, if pregnant women regularly do prenatal gentle yoga and dhikr therapy, they can provide benefits such as strong endurance, they can relieve symptoms of stress and anxiety, elimination of tension in pregnant women, reduce physical complaints in general such as back pain, pelvis pain, and stabilize the emotions of pregnant women. Dhikr can calm the mind of pregnant women. And with relaxation and meditation, they can provide an inner bond between the mother and the baby.

The effectiveness of prenatal gentle yoga combination with Dhikr on the sleep quality of pregnant women at Rural and Urban areas

Based on the results of this study, there is an effect of prenatal gentle yoga and dhikr therapy on the sleep quality of pregnant women. It can be seen from the result of statistical tests with first post-intervention result, where p value is 0.290 and second post-intervention, the p value is 0.007.

According to Irma (2017), yoga in pregnancy focuses on comfort and safety so it can provide many benefits such as increasing energy and endurance, eliminating muscle tension, reducing physical problems in general during pregnancy, such as back pain, pelvic pain, and swelling of the body parts, helping the healing and recovery process after giving birth, stabilizing the emotions of pregnant women who tend to be emotional, strengthening determination and courage, strengthening self-confidence and focus, building positive affirmations and the power of mind during childbirth. Calm and silence through relaxation and meditation, gives a peace time to create an inner bond between mother and baby, instilling patience and wise.

This is also in accordance with the theory of Yessie (2020), which says that Yoga can help pregnant women preparing their minds and bodies for pregnancy and childbirth because this helps them to focus, concentrate and keep their bodies healthy. Body posture trained in yoga is a posture that can help pregnant women to keep the body active and flexible and can help minimizing the common complaints that are often experienced.

According to researchers, improvement of sleep quality of pregnant women is caused by the increase of comfort, calmness and peace after the implementation of yoga exercises because when the body performs guided movements and meditation, that carries oxygen into the blood to the brain more smoothly so that the feelings of a fresh body, calmness, ease of concentration and comfort when resting are created. Improvement in sleep quality in pregnant women who routinely do prenatal gentle yoga exercises is caused by yoga movements that bring positive energy so that the body becomes relaxed, fresh and the soul is calm. The relaxation part of yoga movements is the same as meditation where silence enters the subconscious and together with the chanting of dhikr, calmness will be created, eliminating tension and positive affirmations will be formed so that pregnant women do not feel anxious and have difficulty sleeping. Yoga movements will calm the body, focus the mind, release stress and tension in the body so that it can improve the quality of sleep for pregnant women. Dhikr therapy is not only a relaxation medium but is a spiritual activity procedure that can help someone become relaxed, calm and reduce anxiety. Muslims believe that by mentioning the names of Allah can provide peace of mind and cure various diseases

This research is also in accordance with research (Putri & Nur, 2021). That research, which has 30 respondents with 18 questionnaires in the form of questions carried out before the implementation of yoga exercises is found before the implementation of yoga gymnastics, almost all respondents have a bad sleep quality. As many as 26 pregnant women (86.7%) have a bad sleep quality and after Yoga gymnastics, as many as 27 pregnant women (90%) have a good sleep quality. So, it can be seen an increase on the result of measurement of sleep quality before and after doing yoga gymnastics and by paying attention to the results of the Wilcoxon statistical tests which shows the significance value of P (0,000) which means $p < 0.05$ respondents have a bad quality of 26 pregnant women, which is H_0 is accepted which means there are effects of yoga exercise on the sleep quality of pregnant women.

Prenatal Gentle Yoga And Dhikr on sleep quality among pregnant Women in Rural And Urban Areas

At the beginning of the pre-test related to sleep quality, pregnant women in rural and urban areas did not show any differences. This is because the characteristics of the respondents tend to be the same, but after the prenatal gentle yoga intervention, there was a difference in the improvement in sleep quality at the post-test. Why is the post-test in urban areas better than the post-test in rural areas? Because based on the researcher's assumption, during the home visit activity, pregnant women in urban areas tend to do prenatal gentle yoga activities regularly according to the instructions and directions from the researcher. This is because pregnant women in urban areas have basically heard of or been exposed

to prenatal gentle yoga so they know more about its goals and benefits. So when given training and education about the benefits of prenatal gentle yoga, and direction of how to do it, they will do their best to do the exercises according to the recommendations so that they really feel the benefits of prenatal gentle yoga and enjoy good sleep quality. In rural communities, although there is an increase in sleep quality, it is not as much as the increase in sleep quality of pregnant women in urban areas.

The majority of studies have found that urban residents have higher health literacy than rural residents (Aljazim & Ostini, 2020). MHL scores were significantly higher in urban areas than that of in rural areas, so their curiosity and efforts in maintaining health during pregnancy were higher. One-third of pregnant women in rural areas found it very difficult to access, understand, assess, and apply information about mothers and children (Phommachanh et al., 2021).

Conclusions

It can be concluded that the combination of prenatal gentle yoga and dzikir is effective for pregnant women, both in rural and urban areas. Hopefully, this intervention can be further developed in society, especially in rural area, where in this research, it is less introduced in rural area. Prenatal gentle yoga and dzikir can be considered as physical activities for pregnant women with gestational age of 20 weeks or more. With this kind of activities, pregnant woman can be more healthy during their pregnancy..

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