

Differences Between the Combination of Maternity Pillow Dual Wedge and Prenatal Yoga Compared with Prenatal Yoga on Anxiety Levels Among Third-Trimester Primigravida Women

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ARTICLE INFORMATION

Received: Date, Month, Year

Revised: Date, Month, Year

Accepted: Date, Month, Year

KEYWORD

Anxiety; Maternity Pillow Dual Wedge; Prenatal Yoga; Third-Trimester Primigravida

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<https://doi.org/>

ABSTRACT

Third-trimester primigravida women often experience anxiety due to physical and psychological changes before childbirth. A preliminary survey at Afyah Clinic, Gedangan, Sidoarjo, found that 30 out of 37 third-trimester primigravida women (81.08%) experienced anxiety. One non-pharmacological intervention that may reduce anxiety is the combination of a Maternity Pillow Dual Wedge and prenatal yoga. To determine the anxiety levels of third-trimester primigravida women before and after the administration of a Maternity Pillow Dual Wedge combined with prenatal yoga at Afyah Clinic, Gedangan, Sidoarjo. This study employed a quasi-experimental design using a Two-Group Pretest–Posttest Control Design. The sample consisted of 30 respondents, divided into intervention and control groups of 15 each, selected through purposive sampling. Anxiety levels were measured using the PRAQ-R2 questionnaire. Data were analysed using the Paired Sample T-Test and Independent Sample T-Test. The Paired Sample T-Test showed a p-value of 0.000, indicating that the combination of a Maternity Pillow Dual Wedge and prenatal yoga significantly reduced anxiety levels among third-trimester primigravida women. The Independent Sample T-Test yielded a p-value of 0.457, indicating no significant difference between the intervention and control groups. The combination of a Maternity Pillow Dual Wedge and prenatal yoga was effective in reducing anxiety among third-trimester primigravida women and has the potential to be applied as a non-pharmacological intervention in midwifery care.

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Introduction

The third trimester of pregnancy is a period that often causes anxiety among pregnant women, especially primigravida women who have no previous experience with childbirth. Physiological changes, sleep disturbances, physical discomfort, and concerns regarding maternal and fetal safety may increase anxiety levels before delivery. Untreated anxiety can negatively affect both maternal and fetal health.

Various non-pharmacological interventions have been developed to reduce anxiety during pregnancy, one of which is prenatal yoga. Prenatal yoga helps promote relaxation, reduce muscle tension, and improve both physical and psychological well-being. In addition, the use of a *Maternity Pillow Dual Wedge* can improve resting comfort, provide abdominal and back support, and enhance sleep quality among pregnant women.

The combination of a *Maternity Pillow Dual Wedge* and prenatal yoga is expected to provide greater benefits than prenatal yoga alone, as it offers both physical comfort and psychological relaxation. Therefore, this study aimed to analyse the differences between the combination of a *Maternity Pillow Dual Wedge* and prenatal yoga compared with prenatal yoga alone on anxiety levels among third-trimester primigravida women at Afiyah Clinic, Gedangan, Sidoarjo.

Method

This study employed a quasi-experimental design using a *Two-Group Pretest–Posttest Control Design*. The study was conducted at Afiyah Clinic, Gedangan, Sidoarjo, from December 2025 to March 2026. The sample consisted of 30 third-trimester primigravida women selected through total sampling and divided into two groups: an intervention group receiving a combination of a *Maternity Pillow Dual Wedge* and prenatal yoga ($n=15$) and a control group receiving prenatal yoga only ($n=15$).

The research instrument used was the *Pregnancy Related Anxiety Questionnaire-Revised 2 (PRAQ-R2)*. Data analysis was performed using the *Paired Sample T-Test* to assess changes in anxiety levels before and after the intervention, and the *Independent Sample T-Test* to determine differences between groups at $\alpha=0.05$.

Results

A total of 30 third-trimester primigravida women participated in this study. They were equally allocated into the intervention group (*Maternity Pillow Dual Wedge* combined with prenatal yoga) and the control group (prenatal yoga only). Anxiety levels were measured before and after the intervention using the *Pregnancy-Related Anxiety Questionnaire-Revised 2 (PRAQ-R2)*.

Table 1 presents the distribution of anxiety levels and anxiety score changes in both groups before and after the intervention. Before the intervention, most respondents in the intervention group experienced moderate anxiety (93.33%), while all respondents in the control group experienced moderate anxiety (100%). Following the intervention, the proportion of respondents with mild anxiety increased in the intervention group from 6.67% to 20.00%, whereas no respondents in the control group reached the mild anxiety category.

Table 1. Anxiety Levels of Third-Trimester Primigravida Women Before and After Intervention

Group											
Anxiety Scale	Maternity Pillow Dual Wedge + Yoga Prenatal						Prenatal Yoga				
	Pre-Test			Post-Test			Pre-Test			Post-Test	
	F=			F=			F=			F=	
	15	%	Mean±SD	15	%	Mean±SD	15	%	Mean±SD	15	%
			Median;Min- in-Max			Median;Mi n-Max			Median;Min- Max		
Mild Aniety	1	6,67	25,47±4,627	3	20,00	20,67±4,353	0,00		27,40±3,225	00,00	26,27 ±3,150
			25,47;19-34			20;67 15-30			28,00 20-34		27,00; 20-33
Moderate Anxiety	14	93,33		12	80,00		15	100,00		15	100,00
Severe Anxiety	0	0,00		0	0,00		0	0,00		0	0,00
P Value			0,580*			0,525*			0,129*		0,059*
						0,000**					0,000**
											0,457***

The mean anxiety score in the intervention group decreased from 25.47 ± 4.627 before the intervention to 20.67 ± 4.353 after the intervention. In the control group, the mean anxiety score decreased from 27.40 ± 3.225 to 26.27 ± 3.150 . The Paired Sample T-Test demonstrated significant reductions in anxiety levels in both the intervention group ($p=0.000$) and the control group ($p=0.000$). However, the Independent Sample T-Test revealed no statistically significant difference between the two groups ($p=0.457$), although the intervention group showed a greater reduction in mean anxiety scores.

Discussion

The findings demonstrated that the combination of a *Maternity Pillow Dual Wedge* and prenatal yoga significantly reduced anxiety levels among third-trimester primigravida women. This reduction may be attributed to the maternity pillow's ability to improve physical comfort, enhance sleep quality, and reduce muscle tension. At the same time, prenatal yoga promotes relaxation through breathing exercises, stretching, and meditation.

Prenatal yoga alone was also effective in reducing anxiety among participants in the control group. Relaxation techniques and breathing exercises practised during prenatal yoga help reduce stress

and improve both physical and psychological well-being. However, the reduction in anxiety levels was smaller than that observed in the combination group.

Although no statistically significant difference was found between groups ($p=0.457$), the combination intervention resulted in a greater reduction in anxiety scores than prenatal yoga alone. These findings suggest that the use of a *Maternity Pillow Dual Wedge* may serve as a complementary therapy that enhances the effectiveness of prenatal yoga in reducing anxiety among third-trimester pregnant women.

Conclusions

Anxiety levels among third-trimester primigravida women decreased after the administration of the combination of *Maternity Pillow Dual Wedge* and prenatal yoga. Prenatal yoga alone was also effective in reducing anxiety levels, although the reduction was smaller than that observed in the combination intervention group. The combination of *Maternity Pillow Dual Wedge* and prenatal yoga had a significant effect on reducing anxiety levels among third-trimester primigravida women ($p=0.000$). However, no statistically significant difference was found between the combination intervention group and the prenatal yoga group ($p=0.457$), despite the greater reduction in anxiety levels observed in the combination intervention group.

Acknowledgement: The authors would like to express their sincere gratitude to all third-trimester primigravida women who participated in this study. The authors also thank Afyah Clinic, Gedangan, Sidoarjo, for granting permission and support during the research process. Appreciation is extended to all parties who contributed to the implementation and completion of this study. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

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