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Research Article

The Effectiveness of Prenatal Couple Gentle Yoga and Birth Ball on Maternal Mental Readiness and the length of Labor at the Depok Regional Health Center

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Abstract



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There are several ways to prevent pregnancy during pregnancy when the mother and baby are in a healthy condition and the delivery process is normal, including prenatal yoga, a modification of yoga that is adapted to the condition of pregnant women by preparing pregnant women physically, mentally and spiritually for the birth process. The study was conducted at the Depok Regional Health Center which aims to determine the effect of prenatal couple gentle yoga and birth ball on the mental readiness of the mother and the duration of labor, presumably as a confounder variable, namely the mother's age, education, occupation, parity and husband's support, conducted interviews and observations on the implementation of the intervention. In pregnant women and the delivery process. The research design was quasi-experimental with a post-test control group approach, the sample was quota sampling of 35-36 weeks pregnant women as many as 30 respondents in the intervention group and 30 respondents in the control group. The analysis test was carried out by linear regression. It was found that the results of the exercise of Couple gentle yoga and birth ball were significant for the maternal mental readiness of the mother and the length of labor with a P value = 0.0001. Confounding variables are the variables of mother's age, occupation and parity, the determination coefficient R² (R square) = 0.897, meaning that the other variable implementation of exercises.

Keywords: Prenatal couple, gentle yoga, birth ball, maternal mental readiness

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INTRODUCTION

Mortality and Morbidity in pregnant and childbirth women is a big problem in developing countries.¹ In general, women who are pregnant are afraid to face childbirth because of the pain that causes fear and anxiety.² This can cause mental and physical strain which will result in unnatural stiffness of the muscles and joints. At delivery there are physical changes, namely: the mother will feel back pain, stomach ache, feel uncomfortable, tired, lethargic, uncomfortable, unable to sleep well.³ The psychological changes that occur are feeling afraid in relation to oneself, afraid that there will be danger to them during childbirth.⁴

There are several ways to take precautions during pregnancy so that the mother and fetus are in good health and a normal delivery process will occur, including prenatal yoga is a modification of yoga that is adapted to the condition of pregnant women with the aim of preparing pregnant women physically, mentally and spiritually for childbirth process.⁵ With careful preparation, the mother will be more confident and gain confidence in going through labor smoothly and comfortably.⁶ Prenatal couple gentle yoga is done with a partner (husband / family or relatives) which can strengthen the bonding between the mother, father and future baby and can increase the feeling of love for the partner through his movements. While a birth ball using a ball that is large enough with a shape that resembles a gym ball which is useful to help reduce back pain, form good posture so that it makes it easier for pregnant women to move and labor can run smoothly and normally.⁷

According to Putri's research, yoga which is practiced by pregnant women regularly, has many benefits for both mother and fetus. Among them, increasing the duration of sleep for the mother so that it can increase the baby's weight at birth, reduce the incidence of preterm birth and various pregnancy complications. The yoga exercises that are carried out include various relaxation, adjusting postures (yoga asana), breathing and meditation for one hour, routine every day. As a result, 14% of the group who were diligent in yoga gave birth to premature babies, while the group who did not do yoga was 20%. In addition, the yoga group also had lower blood pressure.⁸

MATERIALS AND METHODS

The research design used a quasi-experiment with posttest with control group, with quota sampling technique, in the intervention group as many as 30 respondents and control group 30 respondents with gestational age 35-36 weeks. The study was conducted over 3 months, using questionnaire sheets/observation sheets/partographs on the maternal mental readiness and the length of labor. The intervention begins with 30 minutes of couple's gentle yoga and ends with 10-minute birth ball, where respondents together with their couples (husband / family) make movements with guidance from the research team. Furthermore, respondents in the intervention group performed prenatal couple gentle yoga and birth ball once a week in the center according to the mother's class schedule until the eve of delivery. The control group was only conducted at the beginning of the meeting. Analysis is done multivariate modeling with linear regression analysis through the Best Subset method.⁹

RESULT

Table 1. Distribution of Respondent Characteristics by Age, Education, Employment and Parity in Intervention Groups and Control Groups

Variable	Intervention Group						Control Group					
	Mean	min	max	SD	SE	n	mean	min	max	SD	SE	n
Mother's age (year)	29.6	20	41	5.94	0.63	30	29.2	20	41	6.37	0.83	30
Parity	2	1	5	1.26	0.13	30	2	1	5	1.32	0.17	30
Variable	Intervention Group					n	Control Group					n
	f	Percentage			f		Percentage					
Mother's work:												
Work		10		33.3		30	5		16.6			30
Does not work		20		66.7			25		83.3			
Husband support:												
Yes		30		100.0		30	30		100.0			30
No		0		0			0		0			

The table shows that the average age of respondents in the case group was 29.6 months and the control group was 29.2 months. The most parity group in the case group and the control group was 2 people. The largest proportion of employment status were

non-working mothers in the intervention group at 66.7% and the control group at 83.3%. The husband's support was 100% supportive of both the intervention group and the control group.

Table 2. Distribution of Respondent Characteristics Based on Maternal Mental Readiness and The length of labor in Intervention Group and Control Group

Variable	Intervention Group			Control Group		
	f	Percentage		f	Percentage	
Maternal Mental Readiness:			30			30
Score ≤ 6 (No anxiety)	25	83		0	0	
Score 7 - 14 (Mild Anxiety)	5	17		6	20	
Score 15 - 27 (Moderate Anxiety)	0	0		24	80	
Score > 27 (Severe Anxiety)	0	0		80	100	
The Length of labor:			30			30
0,5 - 1 hour	19	63		3	10	
1,5 - 2 hour	11	37		27	90	

From the table above shows that in the intervention group most mothers did not experience anxiety with a score of ≤ 6 as many as 25 people (83%) and the length of labor 0.5-1 hour as many as 19 people (63%), while in the control group most

mothers experienced moderate anxiety with a score of 15-27 as many as 24 people (80%) and the length of labor 1.5-2 hours as many as 27 people (90%).

Table 3. Effects of Prenatal Couple Gentle Yoga and Birth Ball on Maternal Mental Readiness and The length of Labor in Intervention Group and Control Group

Variable	Intervention Group				Control Group			
	mean	SD	95%CI	P value	mean	SD	95%CI	P value
Maternal Mental Readiness:	5.18	3.77	4.21-6.16	0.0001	15.53	1.94	14.81-16.26	0.341
The length of labor:	1.10	0.51	-0.91-(-0.46)	0.0001	1.77	0.34	-0.91-(-0.46)	0.062

The table above shows the difference in the average mental readiness score of mothers in the intervention group with an average score of 5.16 (no anxiety) with SD = 3.77 and 95% CI = 4.21-6.16, compared to the control group with an average score of 15.53 (moderate anxiety) with SD values = 1.54 and

95% CI = 14.81-16.26, the results of the analysis test obtained the results of p value = 0.0001, that the implementation of prenatal couple gentle yoga and birth ball effects on maternal mental readiness and the length of labor.

Table 4. Final Model Linear Regression Analysis of Prenatal Couple Gentle Yoga and Birth Ball Influence on Maternal Mental Readiness and Duration of Labor

Variable	P value	Coefficients	R Square	Constanta
Prenatal Couple gentle yoga and birth ball	0.0001	-6.644	0.897	19.991
Mother's age	0.0001	- 0.162		
Maternal Mental Readiness	0.0001	5.326		
The length of labor	0.027	-0.889		

From the table above, it can be known that the variables of the implementation of gentle yoga and birth ball exercises mean the mental readiness of the mother and the length of labor with a value of P value = 0.0001. Confounding variables are variables of maternal age, occupation and parity, Coefficient of determination R² (R square) = 0.897, this means that the variables of exercise implementation couple gentle yoga and birth ball can explain the variation on maternal mental readiness and the length of labor by 89.7% and the rest is explained by other variables.

DISCUSSION

Prenatal yoga (yoga during pregnancy) is one type of modification of yoga that is adapted to the condition of pregnant women, with the aim of preparing pregnant women physically, mentally and spiritually for the labor process. With careful preparation, the mother will be more confident and gain confidence in delivering smoothly and comfortably.¹⁰ While Prenatal couple gentle yoga is a paired pregnant yoga exercise performed with her partner (husband / family or relatives) that can strengthen bonding between mother, father and prospective baby and can increase love for the partner through his movements.¹¹ While birth ball is gymnastics for pregnant women by using a large enough ball with a shape that resembles a gym ball that is useful to help reduce back pain so that it makes it easier for you to move, increase blood flow to the uterus, form good posture, help reduce muscle tension and enlarge the diameter of the pelvis, to optimize the delivery process so that labor can run smoothly and normally.⁷

CONCLUSION

From the results of the study obtained results that the age of respondents in both groups averaged in the case group was 29.6 months and the control group 29.2 months. The average parity group in both the case group and the control group was 2 people. The largest proportion for employment status in the intervention group was that the mothers did not work as much as 53.3%, and for the whole husband support variable said support 100%. Based on mental readiness and the length of labor showed that in the intervention group most mothers did not experience anxiety with a score of ≤ 6 as many as 25 people (83%) and the length of labor 0.5-1 hour as many as 19 people (63%), while in the control group most mothers experienced moderate anxiety with a score of 1 5-27 as many

as 24 people (80%) and the length of labor 1.5-2 hours as many as 27 people (90%). With the value P value = 0.0001. Confounding variables are variables of maternal age, occupation and parity, Coefficient of determination R² (R square) = 0.897, this means that the variables of exercise implementation couple gentle yoga and birth ball can explain the variation in the mental readiness of the mother and the length of labor by 89.7% and the rest is explained by other variables. The confounding variables in the study were maternal age, maternal occupation, parity and husband support.

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CONFLICT OF INTEREST

The author declared that don't have conflict of interest

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