

The Effect of Prenatal Yoga on Perineal Lacerations in Maternity Mothers at Midwife's Independent Practice Place in the Working Area of Tanjunganom Public Health Center, Nganjuk Regency 2022

Miftakhul Mu'alimah*, Dewi Kartikasari, Sunaningsih, Yunita Puspita Sari Pakpahan, Nanin Sugiarti

Midwifery Study Program Applied Undergraduate Program, Kadiri University, Indonesia

*Corresponding author: miftakhulmualimah@unik-kediri.ac.id

ARTICLE INFO

Article history:

Received: 5th October 2022

Revised: 20th November 2022

Accepted: 3rd December 2022

Keywords:

Perineal lacerations

Prenatal yoga

ABSTRACT

Childbirth is a physiological process that allows a series of great changes in the mother to be able to give birth to her fetus through the birth canal. During the delivery process, the mother often has lacerations or tears in the perineum. According to a preliminary study conducted at BPM in the working area of puskesmas Tanjunganom Nganjuk, it was found that out of 10 maternity mothers, 6 (60%) of them experienced 3rd degree lacerations and 2 (20%) had 2nd degree lacerations and 2 (20%) maternity mothers experienced 1st degree lacerations. The purpose of this study is to analyze the effect of pregnant yoga on the incidence of perineal lacerations in maternity mothers at midwife's independent practice palace in the Working Area Of Tanjunganom's Public Health, Nganjuk Regency 2022. The research method used is quasy experiment with desaign posttest only control design research. The sample in this study was maternity mothers in July until October 2022 who were distinguished between the control group and the treatment group. The results showed that there was an influence of pregnant yoga on the incidence of perineal lacerations in maternity mothers with a value of p value $0.000 < \alpha 0.05$ with a difference in lacerations of degrees 1 and 3. From the results of this study, it can be concluded that pregnant yoga is very effective in preparing the elasticity of the perineal muscles so that it can help to prevent rupture during the labor process.

I. Introduction

Childbirth is a process that begins with the contraction of the uterus which causes progressive dilatation of the cervix, the birth of a baby and the birth of the placenta, where the process is a natural process. This physiologically occurring labor process often causes spontaneous or intentional tearing or laceration of the perineum or deliberately carried out by the provider in order to save the mother and baby during the delivery process. Perineal laceration is a tear that occurs when the baby is born either spontaneously or using action tools, this tear generally occurs in the midline and can become widespread if the head of the fetus comes out too quickly.

The incidence of tearing of the perineum in maternity mothers in the world in 2015, there were about 2.7 million cases, and this figure is expected to reach 6.3 million by 2050. In Asia alone, 50% of maternity mothers experience perineal tearing (WH0, 2015). Perineal tearing is a form of birth canal trauma that exists in Indonesia, and this occurs in the age group of 25-30 years, which is about 24%, and in mothers aged 32-39 years by 62%.

From a preliminary study that has been conducted in May 2022 at the Midwife Independent Practice Place in the Work Area of Tanjunganom Nganjuk Health Center, it was



found that out of 10 maternity mothers, 6 (60%) of them experienced 3rd degree lacerations, 2 (20%) maternity mothers experienced 2nd degree lacerations and 2 (20%) maternity mothers experienced 1st degree lacerations. Of the mothers who experienced perineal lacerations of degrees 2 and 3, almost all of them during pregnancy did not do physical exercises such as gymnastics or pregnant yoga. Meanwhile, mothers who experience perineal lacerations of degree 1 all do physical exercise, especially pregnant yoga.

Perineal lacerations are caused by parity, baby weight, improper delivery leadership, rigid perineum, cinam extraction, phacum extraction, tool trauma and episiotomy. Perineal lacerations, if not handled properly, can harm both the mother and the fetus, and can cause several complications, including hematomas, fistulas, infections and bleeding, especially bleeding. Perineal lacerations almost occur in all first deliveries, even in the second and subsequent deliveries also often have lacerations in the perineum.

Lacerations in the birth canal always provide bleeding in varying amounts. Bleeding originating from the birth canal must always be evaluated, namely the source and bleeding so that it can be overcome. The tears that occur can be mild (abrasions or lacerations), episiotomy wounds, uterine rupture, spontaneous perineal tears of degree 1 to degree IV (spinter ani muscle) are severed. Tears in the perineum that often occur are caused by improper straining and rigid perineum. Rigid perineum can affect the smooth running of the delivery process during II and can cause birth canal damage. The occurrence of rigid perineum can actually be prepared and anticipated from the time of pregnancy, one of which is by physical preparation such as pregnant yoga.

Pregnant yoga can provide benefits to overcome complaints during pregnancy, reduce anxiety, improve sleep quality and prepare physically for the labor process by training the pelvic floor muscles to be stronger and elastic so as to make it easier during the labor process (Sindhu, 2014). Pregnant yoga is the best way to prepare for the delivery process because pregnant yoga in addition to training and controlling muscles, also helps to practice breathing techniques, relaxation and mental preparation before the delivery process. (Yuliarti, 2011).

This is relevant to the research conducted by Nita Evrianasari and Yuli Yantina (2020), with the title the influence of prenatal yoga on childbirth outcomes. Based on the results of the study, it can be concluded that there is an influence of prenatal yoga on perineal rupture with a p-value of 0.000 (<0.05). Based on the research of Ni wayan Noviani and Ni Wayan Sukma Adnyani (2020) about the effect of prenatal yoga on the duration of time II of labor and the incidence of perineal tearing obtained a p-value of 0.012 where the p-value < 0.05 which means that there is an influence between prenatal yoga on perinium tearing.

Based on this background, researchers are interested in researching the effect of pregnant yoga on perineal lacerations in the Independent Practice Place of Midwives at working area of Tanjunganom Health Center, Nganjuk Regency.

II. Methods

Design and Sample

This research is a type of quasy experiment research with a posttest only control design research design. This study was carried out in July until October 2022, the total sample was 30 respondents with a population of all mothers who gave birth normally at Independent Practice Place of Midwives in the Tanjunganom Health Center Working Area, Nganjuk Regency. The sampling technique used is accidental sampling.

Data Collection

Researchers provide prenatal yoga treatment to pregnant women with a gestational age above 32 weeks in pregnant women who are the treatment group. Pregnant yoga is done 2 – 3 times a week. Furthermore, researchers observed the incidence of perineal lacerations in pregnant women, both those who did pregnant yoga and those who did not.

Data Analysis

The data analysis used is the Mann Whitney test.

III. Result and Discussion

Table 1 Frequency Distribution of Respondent Characteristics in Both Treatment Groups and Control Groups

No	Frequency Characteristics of Respondents					
	Respondent General Data		Treatment groups		Control Group	
			Frequency	Percentage	Frequency	Percentage
1	Respondent's Age	Age at risk (<20 & >35 years)	-	-	-	-
		age is not at risk (20 – 35 years)	15	100	15	100
		Sum	15	100	15	100
2	Education of respondents	Basic	-	-	-	-
		intermediate	6	40	5	33,3
		High	9	60	10	66,7
		Sum	15	100	100	100
3	Parity	primiparous	7	46,7	6	40
		Multipara	8	53,3	9	60
		Grandemultipara	-	-	-	-
		Sum	15	100	15	100
4	Occupation	housewives	8	53,3	6	40
		private	4	26,7	3	20
		teacher	3	20,0	4	26,7
		Self employed	-	-	2	13,3
		Sum	15	100	15	100
5	baby weight born	normal birth weight	15	100	15	100
		low birth weight	-	-	-	-
		more birth weight	-	-	-	-
		Sum	15	100	15	100

Table 1 shows that the frequency characteristics of respondents are based on age, education, parity, baby weight born and occupation. For the age of respondents, all of them are classified as non-risk age (20-35 years) or fall into the productive age category. Where in that age category the risk that can cause some pregnancy complications is very minimal. As for education, most respondents (63%) are highly educated. For the characteristics of respondents based on parity most of them (56%) are multipara, the characteristics of respondents based on work are almost partially (46%) are IRT and the characteristics of respondents based on baby weight born that all of them fall into the normal birth weight category of >2500 gr.

Table 2 Characteristics of Respondents Based on Perineal Laceration Degree

No	Perineal Laceration Degree	Characteristics of Respondents Based on Perineal Laceration Degree			
		Treatment groups		Control Group	
		Frequency	Percentage	Frequency	Percentage
1	No Lacerations	6	40,0	-	-
2	Laceration Degree 1	4	26,7	2	13,3
3	Laceration Degree 2	5	33,3	2	13,3
4	Laceration Degree 3	-	-	11	73,3
	Total	15	100	15	100

Table 2 shows that there were significant differences in perineal laceration events between the treatment group and the control group. The treatment group showed that almost half of the respondents (40%) did not have lacerations, while in the control group most experienced lacerations of degree 3, where the lacerations mostly occurred spontaneously.

Table 3 Differences in Perineal Laceration Degrees in Treatment Groups and Control Groups

Group	Laceration Degree		
	Mean Of rank	Sum Of rank	P value
Treatment	9,27	139.00	0,000
Control	21,73	326.00	

Based on table 3 shows that there is a mean difference between perineal lacerations in the treatment group and the control group. And the P value = 0.0000 < the value of α 0.05, which means that there is a difference in the incidence of perineal lacerations in the treatment group and the control group.

Based on the results of the studies that have been carried out, it was found that the mean of ranks of the treatment group was 9.27 while the control group was 21.73. And the results of statistical tests showed that the value of $p = 0.0000$ and the value of $\alpha = 0.05$ thus means that there is a significant difference between the incidence of perineal lacerations in the treatment group and the control group.

Perineal lacerations can occur due to episiotomy or spontaneously. Lacerations that occur spontaneously due to tension in the muscle and ligament areas in the vaginal and perineal areas during the delivery process, and can also be due to other fetal and maternal factors including birth weight, birth canal size, parity, maternal psychology and straining techniques. Perineal lacerations if proper management and treatment are not carried out will cause some complications in the puerperium.

To minimize the occurrence of puerperal complications due to perineal lacerations, careful physical preparation can be carried out starting during pregnancy. One of the efforts made is pregnant yoga. Pregnant yoga is a modification of classical yoga that has been adapted to the physical condition and changes that occur in pregnant women, where this pregnant yoga is done with a softer and slower intensity. Practicing yoga during the III trimester of pregnancy is one of the useful solutions as a self-help medium that will reduce discomfort during pregnancy, help the delivery process, improve sleep quality, train and get used to breathing techniques, train and strengthen the pelvic floor muscles to be more flexible and elastic, and

pregnant yoga can also reduce anxiety so that it can prepare mentally to face childbirth even to prepare mentally during the period of early after calving.

Practicing yoga regularly during pregnancy, will help the mother to recognize the appearance of any tension in order to keep it relaxed, keep the breath deep, and finally relax the body's muscles. This is relevant to the research conducted by Nita Evrianasari and Yuli Yantina (2020), with the title the influence of prenatal yoga on childbirth outcomes. Based on the results of the study, it can be concluded that there is an influence of prenatal yoga on perineal rupture with a p-value of 0.000 (<0.05). Likewise with the results of a study conducted by Siti Farida et al in 2021 with the title The Effectiveness of Prenatal Yoga to Prevent Perineal Rupture in BPM Dewi Karanganyar with a result of p value = 0.017, where the p value $< \alpha$ (0.05), so it can be concluded that prenatal yoga has a significant relationship with the incidence of perineal rupture in maternity mothers.

Some of the theories above suggest that regular pregnancy yoga can help reduce the occurrence of perineal lacerations. But referring to the characteristics of respondents between the treatment and control groups there were differences in parity and weight of the babies born. In the treatment group, most of them were multipara as well as in the control group, where multipara theoretically greatly influenced the delivery process, both at the duration of delivery as well as vaginal and perineal conditions. However, even primi maternity mothers do not undergo lacerations, especially in the treatment group so it can be concluded that the flexibility of the perineal muscles is not caused by parity but due to physical exercise, especially pregnant yoga.

Likewise with the weight of the baby born, in that the heavier the weight of the baby born, the higher the risk of lacerations. But the results showed that the weight of the baby born is not entirely the cause of the occurrence of perineal lacerations. As long as the perineal muscles are elastic and flexible, they will adjust to the weight of the baby born, especially supported by breathing exercises and the correct straining techniques, all of which can be obtained by regularly doing pregnant yoga.

IV. Conclusion

Prenatal yoga is effective for preventing perineal rupture, so one of the efforts that can be done by pregnant women to prevent and minimize the occurrence of perineal lacerations / ruptures during the delivery process is to regularly do pregnant yoga.

V. References

- Evrianasari, N dan Yantina, Y. (2020). Pengaruh Yoga Prenatal terhadap Outcome Persalinan. Jurnal Kesehatan. Vol. 11, No. 2, 2020 : 182-188.
- Notoatmodjo, S. (2010). Metodologi Penelitian Kesehatan. Jakarta : Rineka Cipta.
- Noviani, N dan Adnyani, N. (2020). Pengaruh Prenatal Yoga terhadap Lama Kala II Persalinan dan Kejadian Robekan Perineum. Jurnal Kebidanan. Vol. 9, No. 2, 2020 : 115-122.
- Oxorn H. (2010). Ilmu Kebidanan : Patologi dan Fisiologi Persalinan. Yogyakarta : Yayasan Essentika Medica.
- Prawirohardjo Setyowati, A., Suhartono, S., Ngadiyono, N., Pujiastuti, R. S. E., & Dyah, D. (2017). Effect Of Yoga On Duration Of The Second Stage Of Labor And Perineal Rupture In Primigravida Mothers. Belitung Nursing Journal, Vol.3, No.6, 2017 : 702706.
- Prawirohardjo, S. (2009). Ilmu Kebidanan. Jakarta : PT. Bina Pustaka Sarwono.
- Proverawati. (2010). Senam Kesehatan. Yogyakarta: Nuha Medika.
- Rahmawati. (2016). Hubungan Senam Hamil Terhadap Lamanya Proses Persalinan Pada Ibu Bersalin di Wilayah Kerja Puskesmas Bayat Klaten. Jurnal Involusi Kebidanan Vol.6 No.11. Januari 2016.

- Sigalingging, M dan Sikumbang, S. R. (2018). Faktor yang berhubungan dengan Terjadinya Rupture Perineum pada Ibu Bersalin di RSUD Imelda Pekerja Indonesia Medan. *Jurnal Bidan Komunitas* Vol. 1, No. 3, September 2018 : 161-171.
- Sindhu, P. (2014). *Yoga Untuk Kehamilan : Sehat, Bahagia & Penuh Makna*. Bandung : Qanita.
- Siringoringo, H. E. (2018). Faktor-faktor yang berhubungan dengan robekan jalan lahir pada ibu bersalin di RS Bhayangkara Palembang tahun 2017. *Masker Medika*, 6(2), 548–553.
- Siti farida dan Sriwahyuningsih Nugraheni. (2021). Efektivitas Prenatal Yoga Untuk Mencegah Rupture Perineum di BPM Chandra Ningrum Karanganyar.
- Sukrisno, Adi. (2010). *Asuhan kebidanan IV (Patologi Kebidanan)*. Jakarta : Trans Info Media.
- Suryani. (2013). Faktor-Faktor yang Berhubungan dengan Ruptur Perineum pada Persalinan Normal di Rumah Bersalin Atiah. *Jurnal Kesehatan* Vol. IV, No. 1, April 2013 : 277-283.
- Wati, N. W. K. W., Supiyati, S., & Jannah, K. (2018). Pengaruh Senam Yoga terhadap Kesiapan Fisik dan Psikologis dalam Menghadapi Persalinan di BPM Lasmitasari, S. ST. *Jurnal Kedokteran dan Kesehatan*, Vol.14, No.1, 2018 : 39-47.
- Wiknjosastro, H. (2007). *Ilmu Kebidanan*. Jakarta: Yayasan Bina Pustaka Sarwono Prawirohardjo
- Yuliarti, N. 2010. *Panduan Lengkap Olahraga Bagi Wanita Hamil dan Menyusui*. Jakarta : Andi.
- Wirantika. (2015). Hubungan Senam Hamil dengan Terjadinya Laserasi Perineum Spontan di Desa Duri Wetan Kecamatan Madura Kabupaten Lamongan.
- Yuliawati dan Anggraini. Y. (2015). Hubungan Riwayat Pre Eklampsia, Retensio Placenta, Atonia Uteri dan Laserasi Jalan Lahir dengan Kejadian Perdarahan PostPartum Ibu Nifas di RSUD Muhammadiyah Kota Metro. *Jurnal Kesehatan* Vol. 6, No. 1, April 2015 : 75-82.