

The Correlation between Prenatal Gentle Yoga and the Success of Normal Childbirth in Bidan Kita Clinic Klaten In 2017

DWI RAHMAWATI¹, ANJARWATI²

¹Faculty of Health Midwifery Program, 'Aisyiyah University of Yogyakarta, Siliwangi Street, Yogyakarta, Indonesia

²Faculty of Health Midwifery Program, 'Aisyiyah University of Yogyakarta, Siliwangi Street, Yogyakarta, Indonesia

Correspondence to DwiRahmawati, Email: dwi_rahmawati8949@yahoo.com, anjarwati@yahoo.com

ABSTRACT

Background: Childbirth has risks that could lead to complications, a woman died every minute, and the other 20 were affected by complications. One of the saving methods of childbirth is Sectio Caesarea; however, the change of era has caused non-indication Sectio Caesarea to increase. In Indonesia, one of the reasons is the mother's anxiety is experiencing pain during normal childbirth. The potential medical risks in Sectio Caesarea childbirth are the increasing morbidity risk, neonatal respiratory disorder, potential surgical complication, and the risk of abnormal placentation and uterus rupture. The decreasing rate of anxiety and childbirth complications can be prevented during the pregnancy through Prenatal Gentle Yoga.

Aim: This research aims to discover the Correlation between Prenatal Gentle Yoga and the Success of Normal Childbirth.

Method: Research Method applied the correlation study with a retrospective approach. This research population was the entire postnatal mothers who participated in Prenatal Gentle Yoga in which their laborers were registered in Bidan Kita Clinic of Klaten during 2017. A purposive sampling technique was used to collect the sample, which amounted to 116 people through Chi-Square statistical analysis.

Results: 58.6 % of mothers routinely participated four times a month in Prenatal Gentle Yoga; 68.1% of mothers had normal births, 91.2% of mothers who routinely participated four times a month in Prenatal Gentle Yoga had normal childbirths.

Conclusion: The analysis results indicated that the frequency of mothers who performed Prenatal Gentle Yoga was at least 4.

Keywords: Prenatal, Yoga, Normal Childbirth

INTRODUCTION

Maternal death in Indonesia is still at the highest rate compared to the developed countries in Asia. The maternal death rate from Central Statistical Bureau shows 359 deaths from 100,000 successful childbirths [1]. Maternal death in developing countries, including Indonesia, is 75% caused by abandoned pregnancy and childbirth [2]. Childbirth is the peak of pregnancy with a new baby's birth from the mother's womb [3]. Childbirth could generate risks towards the mother and baby in the form of pain to a death threat. The threatening conditions for mother and child during the labor process could generate labor complications. The action of rescuing vaginal birth is through the tools like forceps, extraction vacuum, or Sectio Caesarea has to be performed immediately [4]. The survey results of Indonesian Health Demography in 2012 and Indonesian Health Profile in 2014 indicated that there were 64% of women who gave birth without any complication, 31% with prolonged labor, 7% with hemorrhage condition, 5% abortion, 5% with infection, and 59% of women who gave birth through cesarean section due to complications. The labor/childbirth duration is determined by several factors, namely uterus contraction, pelvis, and baby head percentage [5] [6]. The childbirth through Sectio Caesarea in Indonesia experienced an increase in 2000 in which the number of the mother who gave birth through the cesarean section was 47.22%, about 45.19% in 2001, 47.13% in 2002, 46.87% in 2003, 53.2% in 2004, 51.59% in 2005, 53.68% in 2006, there was no significant data for 2007, and about 22.8% in 2009 [7]. In Central Java, there were 11.8% of childbirths through Sectio Caesarea [8].

In Indonesia, due to the change of era, the change of women attitudes in facing childbirth has impacted the increasing demand for Caesarea section without any medical indication; the reason is that the working mothers are highly bound to time and already have specific schedules. Another reason is the trust issue that correlates the time of birth with fortune by expecting that if a child is born at a specific date or time, there will be better life and sustenance; babies born through Sectio Caesarea are believed to have a health condition. However, the most occurring reason is a wrong assumption that through Sectio Caesarea, the mother will feel no pain, just like normal labor does. This condition occurs due to the anxiety and worry in facing the pain that will come during natural childbirth [9]. Potential Medical risks that might occur from the labor through the Caesarea section are the increasing rate of morbidity risk, neonatal respiratory disorder, potential surgical complication, future pregnancy risks, such as abnormal placentation and uterus rupture [10].

The research of Pao-Ju Chen, the decreasing rate of anxiety and labor complications can be prevented during the pregnancy time by several efforts, such as Prenatal Gentle Yoga; therefore, the mother and the baby will be healthy during the pregnancy, and the labor process will be expected [4]. Prenatal Gentle Yoga is an effective method to prepare the childbirth through the training technique focusing on muscle control, breathing technique, relaxation, and calm. Prenatal Gentle Yoga plays a crucial role in preparing pregnant women's childbirth due to pregnant women's physical and natural psychological changes [11]. In Indonesia, this policy or workout program for pregnant mothers has been planned by the government since 2014

which contained in the Regulation of Ministry of Health of RI No.97/2014 regarding health services during pre-pregnancy, during pregnancy, during childbirth, and in post-labor condition, the implementation of contraception, the service of sexual health in Article 46 verse 2 to organize pregnant mother class in which one of its purposes on the explanation is to organize the workout during pregnancy, namely pregnancy exercise [12].

Health Technology Assessment Prenatal Gentle Yoga is a useful solution to master the breathing technique that plays the primary role during pregnancy. Childbirth processes, the functions of essential breathing practice are to exercise contraction tension and accelerate blood circulation. With an adequate supply of oxygen for mother and baby, the relaxation process is fit to be performed during the contraction. It is needed to overcome the tension or sore during childbirth/labor. The relaxation is used during the contraction in which the muscles will actively relax; therefore, the baby's head could come out quickly and smoothen the laboring process. Prenatal Gentle Yoga also strengthens and maintains the elasticity of abdominal wall muscle, ligament, inner-thigh, pelvic floor muscle. Therefore, the labor process can be managed and smoothly and prepared to face the postnatal period [13].

A study in BPs Pritchard Salatiga has found that pregnant women who participated in yoga practice about 2-3 times a day during the second stage of pregnancy will have a shorter laboring period. According to the research results, the prenatal yoga exercise also reduces anxiety related to childbirth, improves the confidence of giving birth, and reduces physical discomfort; the pregnant women are also psychologically more prepared to face the labor process calmly, relaxed, and confident. Relaxation makes the mother breathe deeply, keeps the baby calm, and acquires a lot of oxygen [14]. These things are also consistent with the theory in which the pregnant women who conduct regular yoga will benefit from a smooth laboring process, reduce the Sectio Caesarea action, and reduce fetal distress during childbirth [15]. The results of previous studies have discovered the data in which the mother who gave birth and registered to follow prenatal yoga program during their pregnancies in August 2017 have amounted to 29 people. The mothers who participated in yoga about 1-3 times a month have Sectio Caesarea labor amounted to 14 people. The mothers who participated in Prenatal Gentle Yoga at least four times a month with everyday laborers amounted to 15 people. According to those backgrounds, the author was interested in performing profound research regarding the Correlation between Prenatal Gentle Yoga and Normal Childbirth Success in Bidan Kita Clinic of Klaten in 2017.

RESEARCH METHOD

This research applied the correlation study method, a retrospective approach conducted in Bidan Kita Clinic of Klaten and registered in the register book of patient data in 2017. The population of this research was postnatal mothers who participated in Prenatal Gentle Yoga. The research sampling was performed through the purposive sampling technique. The sample criterion that fulfilled the requirement to participate in this research was the postnatal mothers who participated in Prenatal Gentle

Yoga and registered in the register book. The sample would be removed from this research if the mothers had preeclampsia, placenta previa, hypertension, frank breech, diametrical condition, a medical history of hemorrhage, and a medical history Sectio Caesarea, Gemelli, narrow pelvis, and the mothers who had not given birth.

The data collecting of secondary data was derived from a register book in Bidan Kita Clinic in Klaten. The collected data were the mothers who performed Prenatal Gentle Yoga and their labors' type during 2017. The statistical test used in this research applied the Chi-Square Test, which was implemented to inspect the correlation between gentle prenatal yoga and ordinary childbirth success. This research acquired ethical agreement for the entire research protocol from the ethical research committee of Universitas Aisyiyah Yogyakarta on March 7th, 2018.

RESULTS

The samples in this research were 124 people, the samples who fulfilled the inclusion requisite were as many as 116 people. The samples which were removed in this research were as many as eight people.

Table 1: Distribution of Frequency of Prenatal Gentle Yoga and the Type of Labor/Childbirth

Prenatal Gentle	Frequency	%
Yoga		
1-3 times/month	48	41.4
4 times/month	68	58.6
Total	116	100
Type of Labor		
Normal	79	68.1
SC	37	31.9
Total	116	100

According to Table 1, it shows that the mothers who conducted Prenatal Gentle Yoga about four times a month were 68 people (58.6%) from 116 people (100%), and the mothers who had everyday laborers were 79 people (68.1%) from 116 people (100%).

Table 2: The Correlation between Prenatal Gentle Yoga and the Success of Normal Childbirth in Bidan Kita Clinic of Klaten in 2017

Normal Childbirth in Elderly Women for Women in 2017							
Yoga time/month	Type of Labor/Childbirth				Total		P.Value
	Normal		SC				
	f	%	f	%	f	%	
4	62	91.2	6	8.8	68	100	0.000
1-3	17	35.4	31	64.6	48	100	
Total	79	68.1	37	31.9	116	100	

According to the Chi-Square Test presented in Table 2, a 0.000 p-value was acquired. Because p-value = 0.000 < α (0.05), it could be explained that there was a correlation between gentle prenatal yoga and the success of normal labor in Bidan Kita clinic of Klaten in 2017, and the frequency of 4 times a month of gentle prenatal yoga had more significant influence towards the success of normal childbirth.

DISCUSSION

Prenatal yoga is beneficial in practicing and mastering the breathing technique, contributing to pregnancy and labor processes. The benefits of essential breathing practice are

practicing tension, accelerating blood circulation, and fulfilling the supply of oxygen for mothers and babies. The other benefits which not less critical are strengthening and maintaining the elasticity of abdominal wall muscles, ligaments, pelvic floor muscles, and inner thigh muscles. Thus, the laboring process can be managed. The relaxation process will be perfect by performing the contraction and relaxation required to overcome the laboring process's tension or pain. One of the practices that strengthen and maintain the elasticity is practicing pelvic floor muscles' flexibility, which is useful for relaxing tight pelvic floor muscles in a relaxing condition. During the push, the muscles will actively flex. Therefore, the baby's head will come out quickly; in that order, it will smoothen the delivery process [16]. The research in Taiwan explains that Prenatal Gentle Yoga has been proven useful in providing comfort during pregnancy and preparing normal labor, and preventing complications through breathing techniques, muscles' management, relaxation, and the calm of mind [4].

According to the research conducted in Bidan Kita Clinic in Klate, it was discovered that the mothers who participated in Prenatal Gentle Yoga about four times a month mostly had normal childbirth. In comparison, the mothers who participated in Prenatal Gentle Yoga about 1-3 times a month mostly had Section Caesarea laboring process. This condition shows that the mothers who experienced normal labor would possibly occur on the mothers who conducted Prenatal Gentle Yoga 4 times a month compared to the mothers who conducted Prenatal Gentle Yoga for 1-3 times a month.

The mothers who can have normal childbirth are the mothers who participate in 1-3 times a month of Prenatal Gentle Yoga caused by another factor, such as physical activity conducted by mothers during their pregnancies. The more active a woman's physical activity, the faster and more comfortable the labor process experienced due to improved muscle strengths and the improvement of body immunity due to sports/workout. Besides, the mothers who participate in Prenatal Gentle Yoga but had abnormal laboring process can be caused by another factor that influences the childbirth process, such as the factor of labor assistants who saw from the capability, skills, and preparation from the assistants themselves, because childbirth is a natural process which only required to be supervised and observed without any intervention [17].

The research results prove that the mothers who had a routine prenatal yoga practice would significantly influence the labor process and improve the normal childbirth process's success. The supporting studies include the research in Indonesia, which explains that among 43 pregnant mothers registered in Yoga class, most of them (81.4%) attended the class routinely, and 38 mothers had normal labors [18]. Another study in Taiwan also mentions that the mothers who participated in Yoga program show higher results compared to the expected success childbirth during the active phase and the second stage; besides, the mothers who participated in prenatal yoga program also reporting lower discomfort experience compared to the control group in 38-40 weeks of pregnancy age [19]. Pregnant women who conduct regular yoga will gain benefits. The laboring process is smoother,

reducing the option to conduct Caesariasection and reducing the fetal distress during the laboring period [14].

Research Limitation: The data of labor type through the Caesarea Section registered in the Bidan Kita Clinic register in Klaten were collected through the mothers' confirmation from the phone call. Not all the mothers could participate in providing the info. Therefore, not all the data of the labor type of the Caesarea section could be recorded.

CONCLUSION

The research results indicated that Prenatal Gentle Yoga influenced the success of normal childbirth. The research results were expected to become a basis in implementing Prenatal Gentle Yoga on the entire health facilities by considering the procedure and analysis of Health Technology Assessment of Prenatal Gentle Yoga to prevent childbirth/labor complications.

REFERENCES

- [1] B. P. Statistik, "Statistik Indonesia 2015," *Jakarta Badan Pus. Stat.*, 2015.
- [2] M. C. Hogan *et al.*, "Maternal Mortality for 181 Countries, 1980–2008: a Systematic Analysis of Progress Towards Millennium Development Goal 5," *Lancet*, vol. 375, no. 9726, pp. 1609–1623, 2010.
- [3] I. Hildingsson, J. Thomas, A. Karlström, R. E. Olofsson, and A. Nystedt, "Childbirth Thoughts in Mid-Pregnancy: Prevalence and Associated Factors in Prospective Parents," *Sex. Reprod. Healthc.*, vol. 1, no. 2, pp. 45–53, 2010.
- [4] P.-J. Chen, L. Yang, C.-C. Chou, C.-C. Li, Y.-C. Chang, and J.-J. Liaw, "Effects of Prenatal Yoga on Women's Stress and Immune Function Across Pregnancy: A Randomized Controlled Trial," *Complement. Ther. Med.*, vol. 31, pp. 109–117, 2017.
- [5] S. Indonesia, "Indonesia Demographic and Health Survey (SDKI) 2012," *BPS, BKKBN, Kemenkes, ICF Int. Jakarta*, 2013.
- [6] Kemenkes, *Profil Kesehatan Indonesia*. 2014.
- [7] N. M. Sihombing, I. Saptarini, and D. S. K. Putri, "Determinan Persalinan Sectio Caesarea di Indonesia (Analisis Lanjut Data Riskesdas 2013)," *J. Kesehat. Reproduksi*, vol. 8, no. 1, pp. 63–73, 2017.
- [8] Riskesdas, "Riset dasar Kesehatan Indonesia." *Kemenkes RI, Jakarta*, 2013.
- [9] T. R. Vejnović, S. D. Costa, and A. Ignatov, "New Technique for Caesarean Section," *Geburtshilfe Frauenheilkd.*, vol. 72, no. 09, pp. 840–845, 2012.
- [10] Y. M. Lee and M. E. D'Alton, "Cesarean Delivery on Maternal Request: The Impact on Mother and Newborn," *Clin. Perinatol.*, vol. 35, no. 3, pp. 505–518, 2008.
- [11] D. Chopra, D. Simon, and V. Abrams, *Magical Beginnings, Enchanted Lives: A Guide to Pregnancy and Childbirth Through Meditation, Ayurveda, and Yoga Techniques*. Harmony, 2005.
- [12] K. K. R. Indonesia, "Peraturan Menteri Kesehatan No. 97 tentang Pelayanan Kesehatan Masa Sebelum Hamil," *Masa Hamil, Persalinan, dan Masa Sesudah Melahirkan, Penyelenggaraan Pelayanan Kontrasepsi, serta Pelayanan Kesehat. Seksual*, 2014.
- [13] O. Miller and D. P. Jensen, *Prenatal Yoga Deck*. Chronicle Books, 2003.
- [14] S. Novelia, T. W. Sitanggang, and A. Yulianti, "Effects of Yoga Relaxation on Anxiety Levels Among Pregnant Women," *Nurse Media J. Nurs.*, vol. 8, no. 2, pp. 86–95, 2018.

- [15] C. Morrow, "Finding Common Ground in the Care of Pregnant, Laboring, and Postpartum Women," *Woman-centered Care Pregnancy Childbirth*, p. 263, 2010.
- [16] W. G. SLATE and W. F. MENGERT, "Effect of the Relaxing Hormone on the Laboring Human Uterus," *Obstet. Gynecol.*, vol. 15, no. 4, pp. 409–414, 1960.
- [17] W. Simonds, B. K. Rothman, and B. M. Norman *Laboring on Birth in Transition in the United States*. Taylor & Francis, 2007.
- [18] D. F. Sarwendah, D. N. Sari, and R. Rosalina, "Correlation Between Prenatal Yoga and Delivery Process Among Mothers in Independent Midwife Clinic 'Harti Mustaqim Sumowono', Semarang, Indonesia," in *Proceedings of the International Conference on Applied Science and Health*, 2017, no. 2, pp. 70–74.
- [19] Y.-C. Sun, Y.-C. Hung, Y. Chang, and S.-C. Kuo, "Effects of a Prenatal Yoga Programme on The Discomforts of Pregnancy and Maternal Childbirth Self-Efficacy in Taiwan," *Midwifery*, vol. 26, no. 6, pp. e31--e36, 2010.