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**PREGNANCY EXERCISES AND DELIVERY PROCESS IN MOTHERS
GIVING BIRTH AT SUMOWONO HEALTH CENTER SEMARANG
REGENCY**

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ABSTRACT

Background: *Pregnancy exercise is a therapy to prepare pregnant women either physically or mentally, so that the delivery can take place spontaneously. The delivery process is a process of releasing the fetus from the uterus to the outside of the uterus through the birth canal. This study aimed to find the correlation between pregnancy exercises and delivery process in mothers giving birth.*

Method: *This was a descriptive-correlative study with cross sectional approach. The data sampling used purposive sampling technique. The population in this study was all mothers who attended the pregnancy exercises in period from January to December 2014 in the region of Sumowono Health Center Semarang Regency. The samples were 132 respondents. The data analysis used Chi Square test.*

Results: *The results of this study indicated that the mothers who attended the pregnancy exercises regularly and had spontaneous delivery were 88.2%. While the mothers who attended the pregnancy exercises regularly and did not have spontaneous delivery were 56.4%. Based on the Chi Square test obtained p-value of $0.000 < \alpha (0.05)$ so that it could be concluded that there was a significant correlation between pregnancy exercises and delivery process in mothers giving birth at Sumowono Health Center Semarang Regency.*

Conclusion: *It shows that by implementing pregnancy exercises on a regular basis can help the delivery process. Therefore, every pregnant woman is expected to attend and participate in the pregnancy class in their neighborhood.*

Keywords: *Pregnancy exercises, Delivery process*

INTRODUCTION

Each delivery has risks to both mother and fetus, such as pain until death threat. If the mother or fetus is in a condition that causes the complications of childbirth, then to immediately rescue them, we need to make deliveries to the action that vaginal delivery with an action certain tools, such as with forceps, vacuum extraction, or action per abdominal that cesarean section [1]. Labor with action impact on maternal and infant morbidity. Vaginal delivery action with a vacuum or forceps, can increase the danger of tearing the birth and postpartum hemorrhage which is a causative factor of 2.5-5% of maternal deaths, while the act of cesarean section was 14% and the long process of wound healing incisions are at high risk of infection [1].

To deal with labor to be normal by following pregnancy exercise. Pregnancy exercise was instrumental in preparing the process of the birth of pregnant women due to changes in the physical and psychological changes they experienced. With the body fit and healthy, pregnant women can still carry out daily routine tasks, reduce stress from anxiety faced before delivery [2]

Research in 2010 from 132 women the result is significant effect between pregnancy exercise with the birth process in duration stage II of labor with p value = 0.014 [3]. Research in 2012 from 24 respondents obtained p value of 0.001 indicating a significant effect between pregnancy exercises on the long second stage of labor on maternal [4]. Concluded that pregnancy exercise shortening the duration of labor, reducing the incidence of prolonged labor, lower the racing action in the first stage and improve the way of spontaneous labor.

This study aimed to find the correlation between pregnancy exercises and delivery process in mothers giving birth.

METHODS

This type of research used in this research is descriptive correlative. The design used in this study is cross-sectional design. The independent variables in this study is a pregnancy exercise. The dependent variable in this study is the delivery process. Sample was 132 mothers who follow pregnancy exercise in Community Health Center Sumowono Semarang District who meet the criteria. Sampling technique used was purposive sampling.

Inclusion criteria was that following the Mother's maternity pregnancy exercise and recorded in Community Health Center working area Sumowono Semarang regency period from January to December, 2014. Exclusion criteria were used in this study is Interpretation of fetal weight >4000 g, Contraindications pregnancy exercise such as preeclampsia, placenta previa, hypertension, bleeding or recurrent miscarriage in a previous pregnancy, premature rupture of membranes, anemia. a narrow pelvis. Regularity pregnancy exercise in Community Health Center Sumowono Semarang District pregnancy exercise more due to the implementation of an already scheduled is once a week The data analysis used Chi Square test.

RESULTS

Table 1. Frequency Distribution Based on Maternal Maternity Pregnant Exercise in Community Health Center Sumowono Semarang District 2014

Pregnancy Exercise	Frequency	Percentage (%)
Irregular	39	29,5
Regular	93	70,5
Total	132	100,0

Table 2. Frequency Distribution Based on Maternal Maternity Delivery Process in Community Health Center Sumowono Semarang District 2014

Delivery process	Frequency	Percentage (%)
not Spontaneous	28	21,2
Spontaneous	104	78,8
Total	132	100,0

Table 3. Correlation Exercise Pregnant against Mother Maternity Delivery Process in Community Health Center Sumowono Semarang District 2014

Pregnancy Exercise	Delivery process				Total		p-value
	not Spontaneous		Spontaneous		f	%	
	F	%	F	%			
Irregular	17	43,6	22	56,4	39	100	0,000
Regular	11	11,8	82	88,2	93	100	
Total	28	21,2	104	78,8	132	100	

Based on the survey results revealed the data that the 132 respondents follows pregnancy exercise there are 93 respondents (70.5%) were organized in following pregnancy exercise. And there are 39 respondents (29.5%) were irregular in following pregnancy exercise. Based on the obtained Chi Square test p-value 0,000. Therefore, $p\text{-value} = 0.000 < \alpha (0.05)$, it was concluded that there a significant association between pregnancy exercise against labor on birth mothers in Puskesmas Sumowono Semarang regency.

DISCUSSION

Pregnancy exercise in Indonesia has long been a part of the Loving Mother program. Pregnancy exercise applied in Semarang district through private midwives each sub-districts in Semarang. Sumowono districts is one area that has health center with a regular pregnancy exercise program and the active participants. Pregnancy exercise is scheduled once a week in private midwife working area of Puskesmas Sumowono

Based on the results of research using Chi-Square test has been obtained p-value of 0.000 ($p < 0.05$), then H_0 is rejected and H_a is received, it can be concluded that there is a relationship between pregnancy exercise with deliveries in Community Health Center Sumowono Semarang regency.

In this study, mothers who do pregnancy exercise regularly experiencing a process of spontaneous labor 82 respondents (88.2%). While mothers who do pregnancy exercise irregularly who experience spontaneous labor 22 respondents (56.4%). It shows that women who experienced spontaneous labor process is more likely to occur in women who undergo pregnancy exercise regularly than women who undergo pregnancy exercise irregularly.

Pregnancy exercise is one form of exercise that help pregnant women obtain good power so as to expedite the delivery process. Exercise during pregnancy will benefit psychologically, because of fear and anxiety in pregnancy and childbirth can cause rigidity of the muscles of the birth canal so that the delivery run is not normal. With regular practice contractions uterus become better and can give strength to the muscles of the pelvic floor, the muscles of the abdominal wall so that labor becomes shorter and the delivery process can take place spontaneously [5]. One exercise strengthens and maintains elasticity are exercises that strengthen pelvic floor muscles are flexing their usefulness strong pelvic floor muscles in a relaxed state. At the time of straining the muscle will relax actively so that the baby's head will come out easily, thus will expedite the delivery process [6]

Pregnancy exercise regularly may help delivery process takes place spontaneously. Increasing the strength needed during delivery will be formed muscles and strong compared to women who rarely or never followed through pregnancy exercise. Mothers who do not follow the pregnancy exercise frequently or regularly mostly experienced labor is not normal for mothers rarely or never followed through physical exercises or sports during pregnancy so that the muscles of the abdominal wall and muscles of the pelvic floor becomes stiff and not can function perfectly in labor [7].

Based on the data, that there are other factors associated with pregnancy exercise, that is education, age, occupation, and the number of births. From the data obtained, majority of respondents are in the age group 20-35 years. The age group 20-35 years is the age of mature both mentally and physically. The readiness of pregnant women in antenatal care to follow in accordance with the changes that occur due to the interaction with age and experience background [8]. Specific age ranges both to perform the role of antenatal care, when too young or too old may not be able to play such a role optimally. This is supported study 2010 that pregnant women aged 20-35 years, uterus and other organs are ready to accept the pregnancy and expected to be able to more attention for her pregnancy.

The results education also showed that respondents with a basic level, medium or high equally likely to do or not to do gymnastics pregnant. Higher education is not always a positive effect on behavior, including in terms of pregnancy exercise. Likewise, low education does not always influence the negative behavior. Respondents who do not work have more time to perform daily activities and go to health care for pregnancy exercise.

The number of births in the first pregnancy pregnant women will more attention to the condition of pregnancy. On the first pregnancy antenatal care was a new experience so that mothers have a high motivation in checkups in health care as well as participate in activities doing gymnastics pregnant, which aims to make pregnancy and delivery process runs smoothly. Conversely, the more a history of childbirth, went for a health check is reduced, because pregnant women have previous experience that causes less motivated checkups and no exception to conduct pregnancy exercise.

Research in 2010 from 132 women the result is significant effect between pregnancy exercise with the birth process in duration stage II of labor with p value = 0.014 [2]. Research in 2012 from 24 respondents obtained p value of 0.001 indicating a significant effect between pregnancy exercises on the long second stage of labor on maternal [3].

With the influence of pregnancy exercise on the process during childbirth it is expected that every pregnant woman should be able to prepare both physically and mentally to face the future delivery, one is to do pregnant exercises.

CONCLUSION

There was a significant association between pregnancy exercise with childbirth on women giving birth in Community Health Center Sumowono Semarang District (p value < 0.05). By doing exercise pregnant once a week can help with spontaneous labor, in this study mothers who do pregnancy exercise regularly experiencing a process of spontaneous labor 82 respondents (88.2%). Expected to cross-sector cooperation between government and private sectors, one of which is to provide education about the benefits of pregnancy exercise in offices or community environment, so it is not only women but also men and family members can know and support for pregnancy exercise improve physical and mental health of pregnant women.

Researchers can then conduct further research on pregnancy exercise and other factors that affect labor.

REFERENCES

- [1] Prawirohardjo S. Ilmu Kebidanan. Jakarta: Bina Pustaka Sarwono Prawiroharjo. 2009.
- [2] Sukaryati Y, Maryunani A. Senam Hamil, Senam Nifas dan Terapi Musik. Jakarta:Trans Info Media. 2011.
- [3] Aulia H, Hindun S. Pengaruh Senam Hamil Terhadap Proses Persalinan Normal Di Klinik YK Madira Palembang. Jurnal Kedokteran dan Kesehatan, 2010; 42(1): 2782-2787
- [4] Eniyah N, Machmudah, Pawestri. Senam Hamil Mempercepat Proses Persalinan Kala II. Jurnal Keperawatan Maternitas, 2014;2(1): 44-50
- [5] Mochtar R. Sinopsis Obstetri: Obstetri Operatif, Obstetri Sosial. Jilid II. Jakarta: EGC. 2008.

- [6] HullyanaM. Panduan Menjalani Kehamilan Sehat. Jakarta: Puspa Swara. 2008.
- [7] Widiyanti A, Proverawati A. Senam Kesehatan. Yogyakarta: Nuha Medika. 2010.
- [8] Rohmah, N. Pendidikan Prenatal upaya Promosi Kesehatan Bagi ibu Hamil. Depok: Gramata Publishing. 2010.