

The Influence of Belly Dance on the Second Stage of Labor and the Condition of the Baby

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Abstract

One alternative to exercise during pregnancy is to participate in belly dance, which is fun and will increase the confidence of pregnant women. This study aimed to determine the effect of belly dance on the duration of the second stage of labor and the condition of the newborn. The research design is quasi-experimental. The intervention group consisted of pregnant women participating in belly dance at least 4 times. At the same time, the control group is pregnant women who do not participate in belly dance. The sampling technique was quota sampling. The samples of pregnant women with a gestational age of 26 weeks were 30 pregnant women in the intervention group and 30 pregnant women in the control group. The study was conducted at the Kebon Jeruk and Palmerah Health Centers in March – December 2017. The results showed that the characteristics of respondents in the intervention and control groups were almost the same, namely age at risk, high education, not working, and multipara. There was a significant difference in the second stage of labor duration after the Belly dance was performed in the intervention group. There was no significant difference in the baby's weight at birth after the Belly dance was performed in both the intervention and control groups. In addition to belly dance, parity also influences belly dance on the duration of the second stage of labor. It is recommended that the Kebon Jeruk sub-district health center introduce belly dance movements to pregnant women as a variation in pregnancy exercise activities.

Keywords: *Belly Dance, The Second Stage of Labor, Newborn Condition.*



A. INTRODUCTION

The direct causes of maternal death are more minor, primarily due to childbirth, and these deaths occur due to complications (Ronsmans et al., 2006; Neal et al., 2016). Meanwhile, the indirect causes include socio-economic backgrounds, education, the position and role of women, socio-culture, and transportation (Thaddeus & Maine, 1994; Campbell et al., 2006), which three delays, namely can describe: Late recognition of danger signs and making decisions, being late in reaching a health facility, being late in getting help at a health facility (Say & Pattinson, 2011; WHO, 2015). And four too, namely: too young to have children (< 20 years), too many births (> 3), too close in spacing (< 2 years), and too old to have children (> 35 years). The causes of death in childbirth are bleeding (28%), eclampsia (24%), prolonged labor (5%), and infection (1%) (Pasha et al., 2018; Vasquez et al., 2007). The prolonged struggle occurs when the labor process lasts more than 24 hours (Chang et al., 2010; Oxorn & Forte, 2010).

Labor is the process of removing the baby, placenta, and membranes from the mother's uterus. Labor (inpartu) occurs when the uterus contracts, causing changes in the cervix (opening and thinning) (Kjeldsen, 1979; Iliodromiti et al., 2012). The labor

process is governed by five elements, three of which are fetal factors (passager) and birth canal factors (passages). If any of the three variables is abnormal, for example, conditions that cause inadequate strength, abnormalities in the baby, or abnormalities in the birth canal, labor cannot proceed normally (Buhimschi et al., 2003; Atwood, 1976). Vaginal delivery using forceps or vacuum is carried out if the conditions for a vaginal delivery are met and if there are indications, including fetal distress, maternal fatigue, labor not progressing in the second stage, and severe preeclampsia. Two other factors that can hinder the delivery process are the mother's psyche and the birth attendant herself. The mother's fear of childbirth affects the power to push and the skills and readiness of birth attendants who can anticipate complications during the delivery process (Sulistyawati & Esty, 2010; Saleha, 2009). The duration of labor that occurs in the second stage is the last phase of labor that lasts too long so that symptoms such as dehydration, infection, maternal fatigue and asphyxia, and fetal death in the womb / Intra Uterine Fetal Death arise (Achadi, 2009; Syaifudin, 2010).

Until now, the only thing that can be regulated is the issue of energy or power, specifically with pregnant exercise and adequate energy before delivery. Pregnancy exercise is an exercise program designed for healthy moms to prepare their physical condition for childbirth by preserving the condition of the muscles and joints involved in the delivery process. as well as an important strategy for pregnant women to maintain or enhance their physical balance, and is an exercise therapy given to pregnant people (Brayshaw, 2017; Suryani & Handayani, 2018). 2018). As well as movement exercise therapy to physically and emotionally prepare pregnant women for a quick, safe, and spontaneous delivery (Widianti, 2010; Widyawati, 2013).

Pregnancy exercise is a sort of motion exercise designed specifically for pregnant women. This prenatal workout can be started at 24 weeks of pregnancy and continued weekly to prepare physically and mentally for the birth process (Diarini et al. 2015). Pregnant women who exercise frequently during pregnancy get the benefits of childbirth, such as a shorter active phase (second stage), fewer cesarean sections, less meconium in the amniotic fluid, and less fetal distress at the moment of delivery. Pregnancy exercise is useful during delivery, according to the pregnancy exercise program (Indiarti, 2008).

Pregnancy causes the entire female genital system to undergo fundamental changes to support the development and growth of the fetus in the womb (Sharpe & Skakkebaek, 1993). One of the healthiest ways to maintain optimal energy during pregnancy is to exercise regularly (Evans & Aronson, 2005). Pregnant women who regularly exercise their blood circulation and respiratory system will be smoother. This will make our bodies have optimal energy flow even though gestational age continues to climb and the stomach is getting bigger (Ni'mah, 2013).

Pregnant women can do many types of exercise; one of which is becoming a trend for pregnant women today is belly dance (Herlyssa et al., 2022). The Belly Dance exercise is a modified Belly Dance movement for pregnant women. This dance has benefits for pregnancy and childbirth (Ranita, 2016). Belly dance movements can strengthen and relax the abdominal and pelvic muscles. Belly Dance exercise is a

healthy way to maintain optimal energy during pregnancy. This belly dance movement makes pregnancy exercises more energetic and fun because this sport is centered on the abdomen and waist so that it will help strengthen the abdominal and pelvic muscles and improve the posture of pregnant women. The artistic and feminine belly dance movement also triggers positive energy in the head to pump confidence, making the pregnancy period light and even fun (Batubara et al., 2020).

Belly dance movements that are not so complicated allow pregnant women not to be too tired during and after the exercise. The benefit of doing belly dance is that it can burn and reduce calories. In addition, the movement, which is more focused on the abdomen and hips, aims to strengthen the abdominal muscles that support the baby in the womb, reduce pain, especially in the back, and facilitate the delivery process. In addition to the physical benefits, doing belly dance gymnastics can also make the mind more relaxed and comfortable (Wina Fitriani, 2017).

Based on the above background, the formulation of the problem in this study is how the influence of Belly dance on the duration of the second stage of labor and the condition of the baby at the Kebon Jeruk Public Health Center and the Palmerah District Health Center, DKI Jakarta Province. This research will be conducted from March to October 2019 at the Kebon Jeruk Health Center and the Palmerah Health Center in the DKI Jakarta area. The research sample to be taken is pregnant women who come to perform ANC.

B. LITERATURE REVIEW

1. Labor

Labor is the process through which the cervix opens and thins, and the fetus descends into the birth canal (Oktarina, 2015). Birth is the process of pushing the fetus and membranes through the birth canal. Normal labor and birth is a process of fetus expulsion that occurs at term (37-42 weeks), is spontaneously delivered with a back of the head presentation within 18 hours, and is free of difficulties for both the mother and the fetus (Saifuddin, 2008).

Signs of labor entry (in part) are the onset of pain due to his coming stronger, more frequent, and regular discharge of mucus mixed with blood (bloody show) which is more due to small tears in the cervix; sometimes the membranes rupture. By itself and on internal examination: the cervix is flat, and the dilation is present (Mochtar, 1998). There are four stages of labor, namely:

- a. Stage I (Opening Stage): uterine contractions of sufficient frequency, intensity, and duration have been achieved to produce progressive cervical dilatation. The first stage of labor is completed when the cervix is fully dilated (about 10 cm), allowing the fetal head to pass (Prawirohardjo, 2008).
- b. Stage II (Fetal Expulsion Stage): starting from complete dilation (10 cm) until the baby is born. This process usually lasts 2 hours in primiparas and 1 hour in multiparas. He is coordinated, strong, fast, and longer in this process, about every 2-3 minutes. The fetal head has descended into the pelvic space, resulting in pressure on the pelvic floor muscles, which reflexively causes a feeling of

straining. Because of the pressure on the rectum, the mother feels the urge to defecate, with a sign that the anus is open. At the time of his, the head of the fetus begins to appear, the vulva opens, and the perineum stretches. With a guided strain, the head will be born, followed by the entire body of the fetus. After a short rest, he starts again to completely expel the baby's limbs (Mochtar, 1998).

- c. Stage III (Placenta Expulsion Stage): the time for the separation and expulsion of the placenta starting immediately after the baby is born until the delivery of the placenta, which lasts no more than 30 minutes. After the baby is born, uterine contractions rest for a while. The uterus was palpable hard with the uterine fundus at the center level and became 2 times thick before. Within 5-10 minutes, the entire placenta is separated, pushed into the vagina, and will be born spontaneously or with a slight push from the top of the symphysis or uterine fundus. When the placenta is born, the uterine muscles generally contract, the blood vessels are pinched, and the bleeding stops immediately. The whole process usually takes 5-30 minutes after the baby is born. Expulsion of the placenta is accompanied by blood loss of approximately 100-200 cc (Mochtar, 1998; Wiknjosastro, 2007).
- d. Stage IV (Supervision Period): starting from the birth of the placenta for 1-2 hours, monitoring the mother's condition is carried out, especially on the dangers of postpartum hemorrhage. Before leaving the postpartum mother, 7 critical points must be considered, including uterine contractions must be good, there must be no bleeding from the vagina or other genital organs, the placenta and membranes must be complete, the bladder must be empty, wounds in the perineum must be well cared for, the baby is in good condition, and the mother is in good condition (Mochtar, 1998; Wiknjosastro, 2007).

2. Labor Time

Lama is the tempo of time or the length of time. The duration of labor is the time required for delivery, namely from the opening of the cervix to complete, which is 10 cm, then expulsion of the products of conception, membranes, and placenta (Wiknjosastro, 2007). The length of labor varied greatly in investigations of women whose labor began spontaneously (Llewellyn, 2002). According to Llewellyn (2002), several factors affect the length of labor, including:

- a. Age: The reproductive period is the most important for women and lasts about 33 years. Menstruation at this time is most regular, and the cycle in the genital organs is essential to allow pregnancy. At this time, ovulation occurs approximately 450 times, and during this time, the woman bleeds for 1800 days. Even at the age of 40 years and over, women can still get pregnant; fertility declines rapidly after that age (Wiknjosastro, 2007). Maternal age is one of the risk factors associated with pregnancy quality or the mother's reproductive readiness. Because the reproductive organs are underdeveloped in people under the age of 20, birthing difficulties are common. Over 35 years

of age is connected with the initiation of cell regression, particularly in the endometrium (Hey-Cunningham et al., 2013).

- b. The number of children born to the mother is referred to as parity. Up to three parity, the mother's womb can revert to its pre-pregnancy form. During the 9 months of pregnancy, the uterus enlarges and the uterine muscles stretch. As a result of this stretch, the suppleness of the uterine muscles does not restore to pre-pregnancy levels after birth. The closer the gap between pregnancy and delivery becomes, and the flexibility of the uterus is gradually disrupted; as a result, the uterus does not contract optimally, resulting in post-pregnancy hemorrhage (Prawirohadjo, 2005).
- c. Women who don't know what's happening and aren't prepared with relaxation and breathing techniques will weep and move wildly during mild contractions. Women who were prepared for birth and had the support of loved ones or labor specialists did not lose control or weep during hard contractions. The contractions lengthen the egg-shaped uterus by 5 to 10 cm and reduce its breadth. The fetus's spinal column straightens, putting its head in direct touch with the contracting uterine fundus. The lower bar is pushed into the pelvis. Known as fetal axis pressure, it affects cervical effacement and dilatation (Varney, 2008).
- d. Fetal size in the uterus: The biggest size of the baby delivered vaginally ensures that the woman's pelvis is enough for the current size of the baby. This information is also used to predict potential difficulties when compared to the predicted fetal weight, and it is critical for making decisions about the delivery route in breech presentation. Women who have previously had little babies from the same father are more likely to have smaller babies this time around. However, diet, hypertension, and diabetes all have an impact on this (Varney, 2008).
- e. Size and shape of the mother's pelvis: The birth canal consists of the solid bone, pelvic floor, vagina, and introitus (outer vaginal opening). Although soft tissues, especially babies, the mother's pelvis is much more involved in the delivery process. The fetus must successfully adjust itself to a relatively rigid birth canal. Therefore, the size and shape of the pelvis must be determined before labor begins (Saifuddin, 2008).
- f. Education: Mothers with a higher education and who work in the formal sector have better access to health information, are more active in determining attitudes, and are more self-sufficient in carrying out actions. The mother's lack of education contributes to her lack of information. To obtain health-care services. The poorer the mother's knowledge, the less inclined she is to use health-care facilities (Rusmini et al., 2005).

3. Belly Dancing

According to historical records, belly dance is a dance that comes from Africa and the Middle East (Maira, 2008; Moe, 2012). Various circles proved to be interested

in this dance. Not only mothers but young women are also suitable for this belly dance. Despite being present in the centuries-old history of belly dancing, the popularity of belly dancing as a type of physical exercise has only grown in recent years. Because belly dance consists of exercising the abdominal muscles, many people think these movements will be very beneficial for pregnant women. In addition, this dance also trains to breathe to become longer and more regular (Ranita, 2016).

The belly dance exercise is a modified Belly Dance dance movement for pregnant women. This dance has benefits for pregnancy and childbirth. Because the Belly Dance movement can strengthen and relax the abdominal and pelvic muscles. Belly Dance exercise is a healthy way to maintain optimal energy during pregnancy. Participating in belly dance is proven to be fun and will increase the confidence of pregnant women (Jackson, 2015).

These belly dancing routines are customized and modified for pregnant women to replace tedious prenatal exercise with vigorous and varied motions, making it a pleasurable activity. Slow and intense motions can stimulate pregnant women's stomachs. This workout targets the abdominal and waist. This belly dance motion can strengthen pelvic and abdominal muscles, enhance posture, and aid birth. This movement has no side effects. Pregnant women should only ask their obstetrician if their pregnancy is normal. Because this dance is not physically demanding, it can be performed from early pregnancy till delivery..

According to Di Mascio D, physical activity or exercise for 30-90 minutes in pregnant women can increase vaginal delivery, thereby reducing the incidence of delivery by sectiosecarea (DiMascio, 2016). While research by Malosso et al. found that aerobic exercise during pregnancy can reduce the incidence of preterm birth and prevent the incidence of diabetes during pregnancy (DiMalosco, 2016). Besides that, it also improves the physical health of pregnant women and is beneficial for pregnant women and their fetuses (Kramer & McDonald, 2006).

4. Framework

A conceptual framework is a framework of relationships between concepts that are observed or measured through research that will be carried out (Notoatmodjo, 2005). In this study, it is described in the following chart:

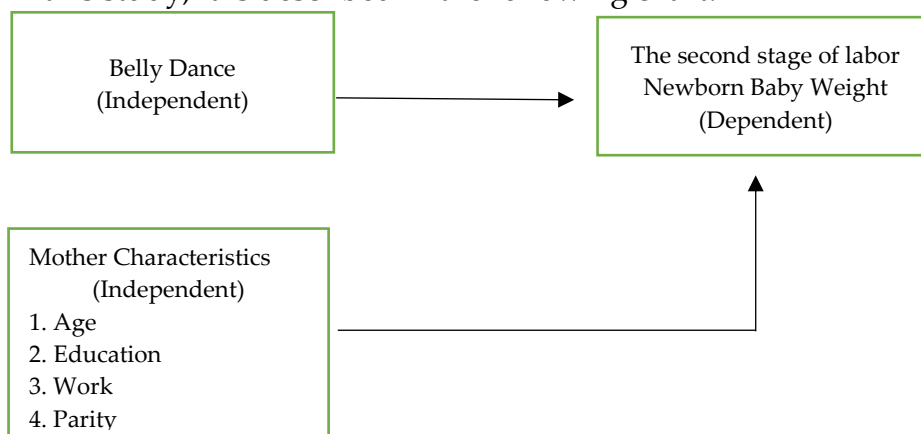


Figure 1. Conceptual Framework

5. Hypothesis

H₁: There is a difference in the duration of the second stage of labor and the newborn's weight after the Belly dance between the intervention and control groups.

H₂: There is an effect of respondent's characteristics (age, education, occupation, parity) on the duration of the second stage of labor and the newborn's weight.

C. METHOD

The design of this study was a Quasi Experiment by giving belly dance treatment to the intervention group, namely pregnant women who participated in belly dance at least 4 times at the Puskesmas, then observed the delivery process in the intervention group. Meanwhile, no action was taken in the control group except only watching the delivery process. The population of this study was ± 1,476 pregnant women who visited the Kebon Jeruk District Health Center and the Palmerah District Health Center in West Jakarta, with an average visit of 110-120 people. In this study, the sample was third-trimester pregnant women who participated in belly dance at the Kebon Jeruk District Health Center from March to December 2019. The number of pieces required was 60 people consisting of 30 intervention groups and 30 control groups. The sampling method used in this study uses a quota sampling design to determine samples from a population with specific characteristics to the desired number (quota). Data processing is done using software to calculate the independent and dependent variables and the influence of Belly Dance on the duration of the second stage of labor and the condition of the newborn. The data analysis used is univariate, bivariate, and multivariate analysis.

D. RESULT AND DISCUSSION

1. Characteristics of Respondents

Distribution of Respondents based on their Characteristics between the intervention group and the control group at the Kebon Jeruk District Health Center and the Palmerah District Health Center for the Period of July-December 2019 presented in the following table:

Table 1. Distribution of Respondents based on their Characteristics

Variable	Category	Intervention		Control	
		n	%	n	%
Mother's Age	risky	27	90	23	76.7
	No risk	3	10	7	23.3
Mother's education	Tall	24	80	21	70
	low	6	20	9	30
Mother's job	Working	7	23.3	8	26.7
	Doesn't work	23	76.7	22	73,3
parity	Primipara	10	33.3	6	20
	Multipara	20	66.7	24	80

In table 1, the proportion of at-risk age and education is practically the same in the intervention and control groups. Both the intervention and control groups had mostly homemakers. In both categories, multiparas outnumbered primiparas. Based

on the preceding data, the control and group have nearly identical maternal age, education, occupation, and parity.

2. The Second Stage of labor and Birth Weight of Newborns

Distribution of the average length of labor in the second stage and the birth weight of babies in the intervention group and control group at the Kebon Jeruk District Health Center and the Palmerah District Health Center for the Period of July-December 2019 presented in the following table:

Table 2. Distribution of the average length of labor in the second stage and the birth weight of babies

Variable	Groups	Mean	± SD	SE
Second	Intervention	22.53	11.57	2.11
Stage of Labor	Control	25.93	38.16	6.96
New Born Baby Weight	Intervention	3199.20	332.77	60.75
Birth	Control	3121.67	291.75	53.26

Table 2 shows that the control group had lengthier second-stage labor than the intervention group. Intervention group second stage labor was shorter than control group. The intervention group had heavier newborns than the control group. Statistics showed no change between the intervention and control groups.

3. Data Normality Test

Before statistical analysis, the data was first tested. The normality assumption test is done by looking at the histogram graph and the normal curve and using the skewness value and the standard error. If the shape resembles a bell shape, the distribution is normal, whereas if the skewness value is divided by the standard error, it produces 2, then the distribution is normal. The graph results on the dependent variable of the second stage of time are not typical, so the data analysis was carried out non-parametrically. The data distribution is normal for baby birth weight data, so an independent t-test is used.

Comparing the intervention and control groups tested the effect of belly dance on second-stage labor. Non-parametric Mann-Whitney testing was used. Second stage of labor length, intervention and control groups:

Table 3. The distribution of the difference in the duration of the second stage of labor between the intervention group and the control group after belly dance was performed at the Kebon Jeruk District Health Center and the Palmerah District Health Center for the period of July-December 2019

Variable	n	Mean Rank	Z Value	p-value
Intervention	0	34.93	-1.984	0.047
Control	0	26.07		

Based on the test results using the Mann-Whitney test in table 5.3, it is known that the intervention group has a higher Mean rank, with a p-value of 0.047 ($p < 0.05$). This test proves that the Belly Dance exercise can significantly speed up the duration of the second stage of labor.

4. Baby's Weight at Birth

Distribution of differences in the weight of newborns between the intervention group and the control group after belly dance was performed at the Kebon Jeruk District Health Center and the Palmerah District Health Center Period July-December 2019 presented in the following table:

Table 4. Distribution of differences in the weight of newborns between the intervention group and the control group

Groups	n	Mean	± SD	SE	p-value
Intervention	30	319.,20	332.771	60.755	0.341
Control	30	3121.67	291.750	53.266	

From the table above, it can be seen that there is a difference in the average birth weight in the two groups; the average in the intervention group is higher. However, from the results of the t-test, a p-value of 0.341 was obtained, meaning that there was no statistically significant difference between the intervention group and the control group.

5. Multivariate Analysis

Considering that this research has abnormal data, the researcher makes the dependent variable numeric into categorical data. For this reason, the researcher conducted a multivariate analysis with the Multiple Logistics Regression test. A bivariate selection was carried out before the multivariate analysis of the Multiple Logistics Regression Risk factor model. The results of the bivariate selection are as follows:

Table 5. Bivariate selection results, the relationship between maternal characteristics and the duration of the second stage of labor, and the weight of the newborn

variable	P-value
2nd stage of labor	
Mother's age	0.197
education	0.027
Profession	0.624
parity	0.023
Newborn baby weight	
Mother's age	0.433
education	0.158
Profession	0.779
parity	0.756

From table 5, it is known that the variables of maternal characteristics related to the length of the second stage of labor that have a p-value <0.25 are maternal age, education, and parity, so these three variables can be continued with interaction testing by removing insignificant interaction variables gradually (P-value > 0.05). Meanwhile, the variable of maternal characteristics related to the birth weight of newborns that meets the requirements is only 1 variable, namely education, so

multivariate analysis cannot be carried out. The following are the results of the initial modeling.

Table 6. Results of Preliminary Modeling of Multivariate Analysis

Variable	B	SE	OR	P-value	95%CI
Education	-0.471	0.698	0.625	0.500	0.159-2.45
Parity	-1.094	0.658	0.335	0.096	0.092-1.21
Mother's Age	-1.087	0.896	0.337	0.225	0.058-1.95
Constant	4.098	1.702	60.244	0.016	

Based on the initial modeling results, it was found that the p-value of the three education variables, parity, and maternal age, was > 0.05 , so they were excluded one by one from the most significant p-value. Furthermore, the final modeling results are as follows:

Table 7. Final Modeling Results of Multivariate Analysis

Variable	Beta	SE	OR	P-value	95%CI
Parity	-1.276	0.634	0.279	0.044	0.081-0.967
Constant	3.446	1.607	19.865	0.032	

From table 7, it is found that the final modeling with a double logistic regression test shows that apart from belly dance, parity also affects the length of the second stage of labor.

The findings revealed that respondents in the intervention and control groups shared nearly identical characteristics, namely that the majority were at risk, had a high level of education, did not work, and were multiparous. These findings demonstrate a difference in the duration of the second stage of labor based on education (p-value = 0.027) and parity (p-value = 0.023). According to Sofiati (2016), there is a considerable association between the amount of schooling and the length of the second stage. Mothers with a poor education are 13.0 times more likely than mothers with a higher education to experience prolonged labor. Sofiati (2016) went on to describe how there is a substantial association between parity and the duration of the second stage of work. Multiparous mothers are 10.6 times more likely than primiparous mothers to have prolonged labor. The length of the second stage of labor has no association with mother age (Sofiati, 2016).

Higher educated mothers will have a better understanding of health; they will be curious about the birth process and will seek information from the internet, mother's classes, print media, television, or health workers. As a result, every midwife should provide comprehensive information to both educated and uneducated women. Low-education mothers are typically hesitant to ask inquiries, act resignedly, and are rather naive about information sources such as the internet, YouTube, and others. Midwives must be creative in their use of diverse information media for low-education mothers.

The average length of the second stage of labor in the intervention group was 22.53 minutes, while it was 25.93 minutes in the control group. There was a difference in labor time in the second stage between the intervention and control groups (P-value

= 0.047). According to the findings of this study, the duration of the second stage of labor is less than that of Wiknjosaastro (2015), who asserts that the second stage of labor normally lasts 2 hours in primiparas and 1 hour in multiparas. Because the mother is more comfortable about childbirth, the second stage of labor may be speedier.

From the observations of every patient who gave birth and had belly dance intervention, they would be calmer in facing childbirth. When he comes, they do hip sway with confidence. This follows Jackson (2015), which states that Belly dance exercises can reduce labor pain. Because of the belly's move

Dance can strengthen and relax the abdominal and pelvic muscles. Belly dance exercise is a healthy way to maintain optimal energy during pregnancy. Participating in belly dance is proven to be fun and will increase the confidence of pregnant women. The results of this study also follow wordpress.com (2017), which states that when a person is in a calm condition, it will stimulate the release of the hormone relaxin. The function of this hormone is to soften the cervix and loosen the pelvic bones during birth so that the second stage of labor can take place more quickly. So as a midwife should provide peace to patients who are in labor.

The results of this study are also not much different from Wenna (2015) in Sofiati (2016) that the average length of the second stage of primiparas who exercise during pregnancy is 20.56 minutes, and for those who do not exercise during pregnancy, 47.50 minutes. The results also prove that by using the Mann-Whitney test, it is known that the intervention group has a higher mean rank, with a p-value of 0.047 ($p < 0.05$). This test proves that Belly Dance exercises can significantly speed up the duration of the second stage of labor.

The results showed that the average birth weight of babies in the intervention group was higher (3199, 20 grams) than in the control group (3121.67 grams). Still, the statistical test results showed no significant difference between the intervention groups. and the control group (P -value = 0.341). The newborn's growth will determine the health of the baby in the future. The results showed that the baby's average weight at birth was within normal limits. The average baby weight found follows the Indonesian Ministry of Health (2013), which states that a normal baby weight is 2500-4000 grams. The baby's weight at birth will affect the baby's readiness to adapt to environmental changes and blood circulation. In infancy-toddler, many factors influence body weight to determine physical growth and nutritional status. Nutritional status is closely related to growth, so nutritional status is considered to know the baby's growth (Susilowati, 2008). Bodyweight is used as the best indicator to determine the nutrition and growth of children. You can use baby scales or trampling scales.

When the bivariate selection was carried out in multivariate analysis, it was found that the variables for the second stage of labor that had a P -value < 0.25 were maternal age (p -value = 0.197), education (p -value = 0.027) and parity (P -value = 0.023), so that the three variables can be continued with the interaction test by removing the insignificant interaction variables gradually (P -value > 0.05). Meanwhile, in the

newborn's BB variable, only one variable has a p-value > 0.25 , namely the education variable.

After the final modeling, it was found that the P-Value > 0.05 means that the alpha 5% stated that belly dance was proven to affect the duration of the second stage of labor. The results of this study follow Mascio (2016), which states that physical activity or exercise for 30-90 minutes in pregnant women can increase the occurrence of vaginal delivery, thereby reducing the incidence of delivery by sectiosecarea. This is also reinforced by Malosco et al. (2016). They found that aerobic exercise during pregnancy can reduce the incidence of preterm birth and prevent diabetes during pregnancy (Malosco, 2016). Besides that, it also improves the physical health of pregnant women and is beneficial for pregnant women and their fetuses (Khramer, 2006).

Belly dance is an exercise for the abdominal muscles that is very beneficial for pregnant women. In addition, this dance also trains to breathe to become longer and more regular. During the dance, the hip belly dance movements are similar to the pelvic floor exercises taught in prenatal classes, which aim to strengthen the muscles associated with the abdomen. This movement can strengthen and relax the abdominal and pelvic muscles. So, Belly dance can also train the abdominal muscles before delivery, and the respiratory system becomes more prolonged and regular. The artistic and feminine belly dance movement will trigger positive energy in the head to pump up self-confidence. With a belly, dance-heavy pregnancy will be fun for pregnant women.

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the muscles associated with the abdomen. This movement can strengthen and relax the abdominal and pelvic muscles. So, Belly dance can also train the abdominal muscles before delivery, and the respiratory system becomes more prolonged and regular. The artistic and feminine belly dance movement will trigger positive energy in the head to pump up self-confidence. With a belly, dance-heavy pregnancy will be fun for pregnant women.

E. CONCLUSION

According to the findings of this research, it is possible to draw the conclusion that the characteristics of respondents in the intervention group and the control group are virtually identical. These characteristics include having a high level of education, not having a job, having multiple children, and being multipara. There was a statistically significant difference in the amount of time spent in the second stage of labor after the belly dance was performed in the group that received the intervention. Both the intervention group and the control group saw the same lack of a meaningful change in the baby's weight at birth following the performance of the belly dance. There is a correlation between the number of previous births and the length of the second stage of labor. Additionally, belly dancing has been shown to have an effect on the duration of this stage. The length of time spent in the second stage of labor is affected by belly dancing. So, it is better if the Kebon Jeruk sub-district health center continues to introduce belly dance movements to pregnant women as a variation in pregnancy exercise activities. To be more optimal in practicing the belly dance movements, it is recommended that the midwife in charge of doing pregnancy exercises attend training on belly dance to have an official certificate as a belly dance instructor.

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