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PREGNANT YOGA SHORTEN THE FIRST AND SECOND STAGE OF PROLONG LABOR IN PRIMIGRAVIDA

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Prolong labor experience at primigravida during delivery caused pain and stress. First and second stage of delivery resulted are known longer than the other stage. This study proposed pregnant yoga to short the duration of first and second stage. This study employed an experimental study using quasi-experimental design. There were 18 primigravida women were involved both in group and experimental groups. The pregnant women were selected using consecutive sampling technique in Kuningan District in 2014. The respondent aged 25-35 years should be in the gestational age more than 35 weeks. As the results, we revealed that pregnant yoga shorten the first and second stage of prolong labor in primigravida. The average length of the first stage in pregnant women who did pregnant yoga was 4.89 (± 0.676) hours and who didn’t get yoga pregnant as much as 5.61 (± 0.698) hours. While the average length of the second stage in pregnant women who did pregnant yoga was 0.25 (± 0.045) hours and who didn’t get pregnant yoga was 1.7 (± 0.410) hours. The shorten duration will be helpful to reduce the prolong labor, and reduce the stress and injury during delivery.

Keywords: Pregnant Yoga, First Stage, Second Stage, Delivery Duration

1. INTRODUCTION

Prolong labor may cause maternal death since the complication during delivery (Kampono, 2013). Delivery consists of four stages as the first stage (opening stage), second stage (infant expenditure stage), third stage (placenta stage) and the fourth stage (stage after labor) (Wiknjosastro, 2008). The first and second stage of delivering at primigravida take long time, reached to 13 or 14 hours at primigravida, therefore, the pain and other risk including anxiety, tension, fear and even panic, will be experienced longer (Wiknjosastro, 2008). In a study conducted by Cheng, et al (2010) in Budiarti (2011) revealed that prolong labor increased the risk of postpartum hemorrhage, chorioamnionitis, and neonatal intensive care increased.

Yoga is highly recommended for pregnant women in order to help the labor process. Prenatal yoga can increase birth weight and reduce the incidence of premature and complications, and decrease psychological stress and physical injury during pregnancy and childbirth, including anxiety and pain (Narendran et.al., 2005; Michalsen et. al., 2005; Beddoe et. al., 2009). Prenatal yoga has been known increase blood flow and fetus nutrients adequately and affects to the mother's pelvis and other reproductive organs during the spontaneous birth (Beddoe et. al., 2009). In addition, pregnant yoga can relieve edemas, cramping, occurred in last month of pregnancy, and tension around the cervix and birth canal, and adjust baby's position and movement to facilitate the (Siska, 2009; Stoppard, 2008).
Pregnant yoga including practices for breathing, movement, motion control, and muscle training may enhance power during delivery (Chandra, 2005). Damayanti (2006) revealed a significant relationship between exercises during pregnancy and the incidence of prolonged labor. Exercises during pregnancy affected the length of first and second stage of labor (Martini et al., 2008; Chuntharapat et al., 2008). Based on the preliminary survey in antenatal in the Nusaherang village, Kuningan district, there were undesirable rate of prolong labor, especially in stage I and II, caused by the long process of straining, and led to events such as: edema of the cervix and vagina, trauma, uterine prolapse, bleeding and distress in infants. It is important to find out the alternative to decrease the delivery duration in order to reduce the maternal mortality rate. It is important to conduct a study related to the affectivity of pregnant yoga to decrease the prolong labor in this district especially in the first and second stage in primigravida.

2. RESEARCH METHODOLOGY

2.1. Design and Samples

This research employed an experimental study using quasi-experimental design with two observed durations of delivery: first and second stage. There were 18 primigravida women were involved both in group and experimental groups. The pregnant women were selected using consecutive sampling technique in Kuningan District in 2014. The respondent aged 25-35 years should be in the gestational age more than 35 weeks. The primigravida who has complicated pregnancy, experiences to prenatal yoga, or knows about the infant condition should be excluded in this study.

2.2. Measurement

Pregnant yoga was given to the primigravida at the experimental group only two times per week for 4 weeks. During delivery partograph was employed to record the duration of stage 1 and stage 2. The time was counted using a calibrated stopwatch.

2.3. Data Analysis

After analyzed the distribution, we recognized that the observed data was not normally distributed. Therefore, the mean difference of first and second step between the intervention and control group was performed using Mann-Whitney test.

3. RESULTS AND DISCUSSIONS

3.1. Pregnant yoga significantly decreased the delivery duration at first and second stage

From thirty six (36) primigravida involved in this study we found that pregnant yoga significantly reduce the delivery duration at first stage ($p$ value < 0.01) and second stage ($p$ value < 0.05). Pregnant yoga shorten the duration of the prolong labor significantly on the average ($\pm$ SD) of 43.2 minutes and 90 minutes, respectively, at first and second stage. Rusmita (2011) revealed the similar trend with our results where pregnant yoga has significant relationship to delivery duration.
Table 1. The length of stage I and II among the primigravida with (N=18) and without pregnant yoga experience (N=18) in Kuningan District

<table>
<thead>
<tr>
<th>Stage of prolong labor</th>
<th>Group</th>
<th>Duration (hours)</th>
<th>Mean ± SD</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Control (N=18)</td>
<td>5.61 ± 0.698</td>
<td>0.008</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Treatment (N=18)</td>
<td>4.89 ± 0.676</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stage 2</td>
<td>Control (N=18)</td>
<td>1.7 ± 0.410</td>
<td>0.046</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Treatment (N=18)</td>
<td>0.25 ± 0.045</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From Table 1, we noted that the average length of the first stage in pregnant women who did pregnant yoga was 4.89 (± 0.676) hours and who didn’t get yoga pregnant as much as 5.61 (± 0.698) hours. While the average length of the second stage in pregnant women who did pregnant yoga was 0.25 (± 0.045) hours and who didn’t get pregnant yoga was 1.7 (± 0.410) hours. The shorten duration will be helpful to reduce the prolong labor, and reduce the stress and injury during delivery.

4. CONCLUSION AND RECOMMENDATIONS

Pregnant yoga has a good role to short the first and second stage of prolong labor in primigravida. It can reduce psychological stress before delivery. This research generates a recommendation for pregnant women to follow pregnant yoga since it has been recognized shorten the delivery duration.

REFERENCE