Postpartum Gymnastics with the Process of Uterine Involution in the Regional General Hospital of Central Sulawesi

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Abstract.

Many factors can affect the involution process including postpartum exercises, breastfeeding, early mobilization, nutritional status, parity and age. One of the factors that influence uterine involution is postpartum exercise and parity. Mothers who do not do puerperal exercises have a slower involution process and high parity involution process becomes slower, because the more often pregnant, the uterus will often experience strain. The purpose of this study was to determine the relationship between postpartum exercises and parity with the process of uterine involution at the Regional General Hospital of Central Sulawesi Province. The design of this study used the Surveyanalytic method with a Cross Sectional approach. Cross Sectional is a research design by measuring and observing the independent and related variables only once at the same time and at the time of the study. This research was conducted at Central Sulawesi Provincial Hospital. The results of the analysis show that the results of the statistical analysis test using the Chi-square test obtained a value of ρ value = 0.000 (ρ < 0.05), where Ha is accepted and H0 is rejected, which means there is a significant relationship between parity and the process of involutionouteri. The conclusion is that there is a relationship between postpartum exercises, parity with the involution process at the Central Sulawesi Provincial General Hospital. This is because postpartum exercises help heal the uterus, abdomen, and hip muscles that have been traumatized and accelerate the return of these parts to normal form while parity, due to the state of the uterus which is increasingly pregnant uterus is also often stretched.

Keywords: Postpartum Gymnastics, Uterine Involution, Hospital

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1. Introduction

Postpartum gymnastics is physical exercise performed by mothers after childbirth after the state of their body has recovered, where its function is to restore health conditions to accelerate the healing process, prevent complications, restore and repair stretches in muscles after pregnancy, especially in the muscles of the back, pelvic floor and abdomen and is a form of early ambulation in postpartum women, one of which aims to smooth the involution process, while the lack of smooth involution process can have adverse effects on postpartum women such as continued bleeding and smooth involution process (Proverawati et al., 2010).

Parity is the number of pregnancies born or the number of children owned either from the current or previous marriage (Ilfa, 2010).

Parity can be divided into primipara, multipara and grandemultipara. The parity parameters of the mother mostly experienced normal involution and a small portion who experienced abnormal involution occurred in mothers who gave birth to > 5 children (grandmultipara), the risks that occur in pregnancies > 5 times such as uterine contractions that are less than optimal. Where parity is a factor in the occurrence of involution because mothers with high parity involution process becomes slower, because the more often pregnant the uterus will often experience strain (Sarwono 2010).

2. Research Method

This research design uses the Surveyanalytic method with a Cross Sectional approach. Cross Sectional is a research design by measuring and observing the independent and related variables only once at the same time and at the time of the study (Sudigdo and Sofyan, 2011). This research was conducted at the Central Sulawesi Provincial General Hospital, Sulawesi Province.

3. Results And Discussions
   a. Result
      1. The relationship between puerperal exercises and the process of involutionouteri
Table 1
Relationship between the Implementation of Postpartum Gymnastics at the Regional General Hospital of Central Sulawesi Province, Sulawesi Province

<table>
<thead>
<tr>
<th>Postpartum Gymnastics</th>
<th>Uterine Involutional Process</th>
<th>Total</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal</td>
<td>Not Normal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Routine</td>
<td>9</td>
<td>81,8</td>
<td>2</td>
</tr>
<tr>
<td>Not Routine</td>
<td>7</td>
<td>26,9</td>
<td>19</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>43,2</td>
<td>11</td>
</tr>
</tbody>
</table>

Source: Primary Data,

In table 1, shows that out of 37 respondents there were 19 who performed puerperal exercises not routinely and abnormal involution, and there were 7 respondents who performed puerperal exercises not routinely and normal involution. Whereas 1 respondent performed pregnancy gymnastics with abnormal involution, and 10 respondents performed postpartum gymnastics routinely and normal involution. Based on the statistical analysis test using the Chi-square test, the value of $\rho$ value = 0.000 ($\rho < 0.05$) means that there is a significant relationship between postpartum gymnastics and the process of uterine involution.

2. Relationship between parity and the process of uterine involution

Table 2
Relationship between Parity and Uterine Involutional Process in Regional General Hospital of Central Sulawesi Province

<table>
<thead>
<tr>
<th>Parity</th>
<th>Uterine Involutional Process</th>
<th>Total</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal</td>
<td>Not Normal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>At risk</td>
<td>2</td>
<td>9,5</td>
<td>19</td>
</tr>
</tbody>
</table>
Table 2 shows that out of 37 respondents there were 19 with risky parity and abnormal involution, and there were 2 respondents who were at risk and normal involution. While 2 respondents with parity were at risk and abnormal involution, and 14 respondents with parity were not at risk and normal involution. Based on the statistical analysis test using the Chi-square test, the value of $p$-value = 0.000 ($p < 0.05$) means that there is a significant relationship between attitude and the implementation of pregnancy exercises.

b. Discussions

From the results of the research conducted with reference to the indicators and research variables, the research results are described in the following discussion:

1) Relationship between Postpartum Gymnastics with the Uterine Involutional Process.

Based on the results of research conducted on 37 respondents, it shows that 11 respondents who carry out postpartum exercises regularly, only 10 people or (%) experience the process of uterine involution and of the 26 people who do not routinely carry out postpartum exercises, only 6 people (%) experience the process of uterine involution while the other 20 people or (%) experience subinvolution.

The results of the analysis show that the results of the statistical analysis test using the Chi-squared test obtained a value of $p$-value = 0.000 ($p < 0.05$), where $H_a$ is accepted and $H_0$ is rejected, which means that there is a significant relationship between puerperal exercises with the process of involution of the uterus in the Regional General Hospital of Central Sulawesi Province. This is in line with research conducted by Dwi Kurniawati (2010) "The relationship between..."
postpartum gymnastics with the process of uterine involution” obtained a value of \( p = 0.000 \) \((p < 0.05)\). The assumption of this study states that, there is a relationship between postpartum exercises with the process of uterine involution.

2) Relationship between Parity with the Uterine Involutional Process.

Based on the results of research conducted on 37 respondents, it shows that respondents who gave birth 1 time as many as 14 (\%) respondents are not at risk of experiencing normal involution, and some respondents who gave birth 2-4 times as many as 2 (\%) respondents are at risk of experiencing abnormal involution. A small proportion of respondents as many as 2 respondents (\%) experienced abnormal involution and a small proportion of respondents who gave birth> 5 times as many as 19 (\%) none experienced normal involution. The results of the analysis show that the results of the statistical analysis test using the Chi-squared test obtained a value of \( \rho_{value} = 0.000 \) \((\rho < 0.05)\), where \( Ha \) is accepted and \( H0 \) is rejected, which means that there is a significant relationship between parity and the process of uterine involution at the Central Sulawesi Provincial General Hospital. This means that parity has a significant influence on the incidence of involution. In accordance with the theory of Kautsar (2011) which states that parity is a factor in the occurrence of involution because mothers whose parity is high the involution process becomes slow, because the more often pregnant the uterus will often experience strain.

4. Conclusion

Based on the results of research and discussion and adjusted to the research objectives, the following conclusions are drawn:

1) There is a relationship between postpartum exercises with the involution process at the Central Sulawesi Provincial General Hospital, Sulawesi Province. This is because postpartum exercises help heal the uterus, abdomen, and hip muscles that have been traumatized and accelerate the return of these parts to normal form.

2) There is a relationship between parity and the involution process in the Regional General Hospital of Central Sulawesi Province, Sulawesi Province. This is due to
the state of the uterus which is increasingly often pregnant uterus also often experience strain.

5. **Compliance with ethical standards**

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**Disclosure of conflict of interest**
This research collaboration is a positive thing for all researchers so that conflicts, problems and others are absolutely no problem for all writers.

**Statement of informed consent**
Every action we take as authors is a mutual agreement or consent.

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