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**ABSTRACT**

**Background:** Pregnant women who are less physically active tend to have an prolonged labor that increases the risk of maternal and fetal death.

**Objective:** To determine the influence of yoga pregnancy guidance to knowledge, attitudes and skills of pregnant women in implementing yoga.

**Method:** Pre-experimental research design of one group pretest-posttest design and use Purposive sampling technique, has been conducted on 30 respondents. Knowledge and attitude variables were measured using a questionnaire, skills observed by observation sheets. Statistical test using Wilcoxon test.

**Results:** This study noted that knowledge increased in the first post test counted 24 people (p value ≤ 0.001) and knowledge increased in the second post test as many as 28 people (p value ≤ 0.001). The attitudes of pregnant women increased in the first post test by 14 people (p value ≤ 0.001) and the attitude increased in the second post test by 24 people (p value ≤ 0.001). Maternal skills improved in the first post test of 16 people (p value ≤ 0.001) and skills increased in the second post test by 30 people (p value ≤ 0.001).

**Conclusions:** There are significant influence of yoga pregnancy guidance on knowledge, attitudes and skills of pregnant women in implementing yoga.

**Keywords:** Guidance, yoga, pregnant women, knowledge, attitude, skills.

**INTRODUCTION**

Indonesia is one of the countries that failed to reduce maternal mortality rate (MMR) in the ASEAN region. Based on results of Health Demographics Survey of Indonesia in 2012 that MMR recorded significant increase that is amounting to 359 per 100,000 births life. The target of Sustainable Development Goals (SDGs) for MMR in Indonesia on 2015-2030 that is equal to 70 per 100,000 live birth, Infant Mortality Rate (IMR) decreases to 12 per 1,000 live birth. The National Target Term Development Plan Medium of Indonesian Ministry of Health on 2015-2019 were number MMR as many as 306 per 100,000 live birth and number of IMR as much 24 per 1000 births life. In addition to five kind of factors, there are psychic mother factor very take more effect. Maternal preparedness during childbirth is influenced by family and husband support or accompany mother will help comfort around delivering. This hormone can cause tension of smooth muscle and vasoconstriction of blood vessels resulting in decreased uterine contractions, decreased uteroplacental circulation, reduced blood flow and oxygen to the uterus, and the onset of uterine ischemia which makes the pain impulse multiply.
In primiparous, duration of labor in the first stage has a longer duration than the multipara, wherein the first stage of a long labor on primiparous about 13-14 hours while in multiparas about 7 hours. The duration of labor in the first stage of primipara causes the pain to be experienced also longer so that the risk of fatigue will be greater resulting in an emotional response of anxiety, tension, fear and even panic. This shows that prolonged labor and infant mortality of the primiparas have a greater risk than in multiparas. In a study conducted by Cheng, et al in Budiarti mentioned that the prolonged labor had a risk of postpartum hemorrhage, chorioamnionitis, and increased intensive care in neonatal.

The natural and smooth labor can be achieved if the uterus contracts well, rhythmically and strongly with the lower segment of the uterus, cervix, and pelvic floor muscles in a relaxed state, so the baby easily passes through the birth canal. This can be achieved with the help of the pregnant woman itself which is the perfect calm and relaxation of the body. Some of these are physical exercises that can be performed before, during, and after pregnancy. A pregnant woman with a normal pregnancy or without contraindications should be supported to carry out physical exercise with moderate intensity to benefit during pregnancy and labor.

The difference between pregnancy exercise and yoga is on “breathing”. Yoga practice always refers to the breath. In yoga practice, pregnant women are clearly guided when to breathe, and when to breathe out. Based on the above, researchers interested in conducting research on the effect of pregnancy yoga guidance on knowledge, attitudes and skills in performing yoga pregnant women in the village Dawan Kaler, Klungkung. Dawan Kaler is one of the villages which call by “Kampung KB” that has been set by the government, so that high community participation to a new program. The purpose of this study is to determine the influence of yoga guidance on pregnancy knowledge, attitudes and skills of pregnant women in implementing yoga. This article useful for improve the knowledge, attitudes, and skills of pregnant women in implementing yoga pregnancy as well as adding references regarding yoga pregnancy.

**MATERIALS AND METHOD**

The research was quasi-experiment carried out in this study with one group pretest-posttest design who has it under the questionnaire and observation sheet as a data collection instrument. As r esponden collected 30 pregnant women in Desa Dawan Kaler who met the inclusion criteria in the period from February to June 2017. Sampling technique used Purposive Sampling. Hypothesis was tested using Wilcoxon test. Ethics of research are informed consent, respect for privacy and confidentiality of respondents, in honor of the state, taking into account the benefits and disadvantages caused. The intervention conducted is to provide guidance of pregnancy yoga for pregnant women selected as respondents with lecture and discussion methods using power point, video and demonstration tools using wireless, mattresses and pillows.

**RESULTS**

The characteristic of respondents as follows:

| Table 1: Characteristics of Research Subjects |
|-----------------|-------------|-------------|
| Characteristics | Σ | % |
| **1. Age** | | |
| 20-25 years old | 2 | 73.4 |
| 26-30 years old | 8 | 26.6 |
| **2. Education** | | |
| Basic | 6 | 20.0 |
| Medium | 22 | 73.3 |
| High | 2 | 6.7 |
| **3. Work** | | |
| IRT | 19 | 63.3 |
| Private employees | 8 | 26.7 |
| Civil servants | 1 | 3.3 |
| entrepreneur | 2 | 6.7 |
| **4. Frequency of pregnancy** | | |
| 1 | 20 | 66.7 |
| 2 | 10 | 33.3 |

Table 1 shows that the characteristics based on age of majority are 20-25 years old (73.4%), based on educational level, it is known that respondents have medium education as much as 73.3%, based on work known majority are housewife (63.3%), and based on the frequency of pregnancy know respondents majority are primiparas (66.7%).
Table 2: The Influence of Yoga Pregnancy Guidance on Knowledge, Attitudes and Skills of Pregnant Women

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Results</th>
<th>Pre-test (n=30)</th>
<th>Post Test 1 (n=30)</th>
<th>Post Test 2 (n=30)</th>
<th>Z_W (Post Test 1)</th>
<th>Z_W (Post Test 2)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>Less</td>
<td>16</td>
<td>4</td>
<td>0</td>
<td>-4.481</td>
<td>-4.774</td>
<td>≤0.001</td>
</tr>
<tr>
<td></td>
<td>Enough</td>
<td>12</td>
<td>11</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Good</td>
<td>2</td>
<td>15</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation of</td>
<td>Downhill</td>
<td>1</td>
<td>0</td>
<td>28</td>
<td>-3.742</td>
<td>-4.899</td>
<td>≤0.001</td>
</tr>
<tr>
<td>knowledge</td>
<td>Rising</td>
<td>24</td>
<td>24</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Permanent</td>
<td>5</td>
<td>0</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td>Negative</td>
<td>24</td>
<td>10</td>
<td>0</td>
<td>-3.742</td>
<td>-4.899</td>
<td>≤0.001</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
<td>6</td>
<td>20</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Attitude Evaluation</td>
<td>Downhill</td>
<td>0</td>
<td>0</td>
<td>24</td>
<td>-4.00</td>
<td>-5.477</td>
<td>≤0.001</td>
</tr>
<tr>
<td></td>
<td>Rising</td>
<td>14</td>
<td>14</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Permanent</td>
<td>16</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills</td>
<td>Unskilled</td>
<td>30</td>
<td>14</td>
<td>0</td>
<td>-4.00</td>
<td>-5.477</td>
<td>≤0.001</td>
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<tr>
<td></td>
<td>Skilled</td>
<td>0</td>
<td>16</td>
<td>30</td>
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<tr>
<td>Skills Evaluation</td>
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<td></td>
<td>Permanent</td>
<td>14</td>
<td>0</td>
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</table>

Description: \(Z_W = Uji\) Wilcoxon

Table 2 shows change of knowledge, attitude and skill of respondent from pretest, first post test and second post test. Score evaluation on the second post test show 28 respondents experienced an increase in knowledge (\(p\) value ≤ 0.001), 24 respondents experienced an attitude increase (\(p\) value ≤ 0.001), 30 respondents experienced skill improvement (\(p\) value ≤ 0.001).

**DISCUSSION**

Good guidance for society must involve all the five senses. In the guidance of yoga pregnancy is done by lecture and discussion methods, watching videos and demonstrations of the implementation of pregnancy yoga as well as the community is given the opportunity in carrying out yoga pregnancy. According Notoatmodjo (2010) mata is the most senses that channel knowledge into the brain. Approximately 75% to 87% of human knowledge is acquired / distributed through the eye, while 13% to 25% are channeled through other senses\(^1\). At the pre test of knowledge of pregnant women about pregnancy yoga in less category is 16 people. This happens because yoga pregnancy is still not popular in the community although the introduction of yoga has been increasingly done in the media information and social media. Interviews before counseling found that the respondent had only heard a glimpse of yoga and did not yet know that the yoga can be performed by pregnant women. This resulted in them not seeking the exact information about yoga pregnancy. Limited of remembering and understanding the information that is causing pregnant women tend not able to remember the information obtained. Other possibilities such as low curiosity because there is no need, low absorption, attention of pregnant women who are less interested in the information makes the respondents easily forget the information provided\(^1\).

The results of first post test and second post test indicate an increase in pregnant women’s knowledge of pregnancy yoga is in the rising
category increased by 28 respondents and 2 respondents are permanent category \((p \text{ value } \leq 0.001)\). This suggests that pregnancy yoga guidance to pregnant women who are treated with an interactive method supported by audio visual media, as well as giving yoga book of pregnancy can arouse the interest of pregnant women to read, listen and practice yoga pregnancy. Thus the information submitted can be received well and clearly by pregnant women. Health education through guidance is an effort or activity to create a conducive community behavior for health. That is, the public realizes or knows how to maintain to the health and avoid or prevent things that harm the health\(^\text{17}\). The Perumal Study, N et al (2013) in Kenya found that pregnant women who were more often antenatal care and got higher knowledge information than those who did not visit\(^\text{18}\).

Notoatmodjo writes that the increased knowledge and ability of one’s thinking is influenced by information sources or readings. Information can be obtained from various sources ie health workers, friends and family, and mass media. Individuals who have understood the information provided, tend to give better perceptions than those who have not been informed. Generally presentations, counseling, leaflet, booklets that present information. The more frequently exposed to information can affect a person’s level of knowledge (17). Anbu, V conducted a study in India found that yoga guidance to pregnant women improve the perception of pregnant women\(^\text{19}\).

Health workers should give information or messages about health by use the mass media as tools that can further facilitate the understanding of society\(^\text{19}\). Babbar Study (2017) found that the role of health care workers is very important in motivating pregnant women. Each time, every time, health workers should provide education to pregnant women in this case physical activity during pregnancy can alter persesi and knowledge of pregnant women\(^\text{20}\).

According to Newcomb in Notoatmodjo (2005), attitude is a readiness or availability to act and is not a particular motive implementer. Attitude is not yet an action or activity, but it is a predisposition to behavioral behavior\(^\text{17}\). Based on pre test results found that 26 respondents still negative toward yoga pregnancy. Yoga became something foreign and is not trusted in Balinese culture. In accordance with the results of the study Guelfi\(^\text{21}\) found that the beliefs, attitudes and attention in doing physical activity, especially pregnant women are influenced by local culture. The point is the subject to know the stimulus that comes either in the form of material or object. Knowledge and information greatly influence the formation of attitudes\(^\text{17}\).

The results of first post test and second post test indicate an increase in attitude of pregnant women about pregnancy yoga is in the category increased by as many as 24 people \((p \text{ value } \leq 0.001)\). Pregnant women feel very need to do yoga pregnancy after being given explanations and books on yoga. When the interview was revealed that previously pregnant women consider yoga should only be done by parents who already have knowledge. Respondents consider that pregnancy yoga is an exercise that could harm the health of themselves and their babies.

This study is in accordance with Babbar study results found that pregnant women have a positive attitude toward yoga after being given information and practice yoga pregnancy directly\(^\text{20}\). Pregnant women come to believe that with yoga pregnancy will be able to improve the health of himself and his fetus. Anbu Study found that with yoga pregnancy will be able to improve the perception and physical health of mother and fetus\(^\text{19}\). Study Reis found that pregnancy yoga enhances a sense of optimism, confidence in self power and improving maternal and fetal health\(^\text{22}\).

Cramer H et al found that a pregnant woman willing to practice yoga depends on the advice of the health worker, the need for delivery preparation and location of yoga. Health workers are expected to provide health education at any time to motivate pregnant women to perform physical activities, one of which carries a yoga pregnancy\(^\text{23-25}\). May E, et al found that if health workers provide information and support pregnant women to do physical exercise then pregnant women will do it at home as much as 7.5 times\(^\text{26}\). The study also found health workers should motivate pregnant women to do yoga pregnancy because yoga has been proven to be very good for the health of mothers and infants.

**CONCLUSION**

The results of this study concluded that there is a significant difference in knowledge, attitude and skill pregnant women to implementing yoga before and after given yoga pregnancy guidance \((p \text{ value } \leq 0.001)\).
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