

Analysis of Physical Activity on the Quality of Life of Pregnant Women in the Plaju Public Health Center, Palembang

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Abstract— Many pregnant women who do not understand what physical activities can be done during pregnancy that will affect the quality of life of pregnant women. A good quality of life is associated with good eating and drinking arrangements, a balance of daily routine activities, work, exercise, rest, to recreational activities during holidays or leisure. The purpose of this study is to analyze the physical activity of pregnant women towards the quality of living in Plaju Health Center, Palembang City. This research uses a quantitative approach with cross sectional study design. A sample of 156 people who met the inclusion and exclusion criteria were taken by purposive sampling in 7 villages. There is a significant relationship between physical activity, gestational age, education, occupation, income, and nutritional status, to the quality of life for pregnant women. The most dominant factors on quality of life are physical activity, gestational age, occupation and nutritional status.

Keywords: *quality of life, physical activity, pregnant women*

I. INTRODUCTION

Pregnancy is generally divided into three monthly or trimester periods. In each trimester, pregnant women experience typical changes in physical and psychological terms that can cause "sedentary life" or reduced physical activity during pregnancy. In general, physical symptoms experienced by pregnant women include fatigue, morning sickness, and emotions including mood lability, insomnia, decreased concentration and increased emotional responsiveness. The biggest factors that can affect the quality of life of pregnant women include changes in sleep quality that will result in decreased physical activity in pregnant women. (Caspersen, 2017). This theory is supported by the results of the Fauzy study (2016) which states that there is a significant relationship between fiisk activity and quality of life for pregnant women. During pregnancy, pregnant women experience a significant decrease in physical activity. This is because some mothers feel lazy to do physical activities and are followed by fear of something happening in their

pregnancy if doing physical activities during pregnancy.

The results of research conducted by Fauzy (2017) to get a good quality of life can be done how to regulate halal and good eating and drinking patterns, balance of activity and rest, exercise and worship. If these things can be fulfilled in the right way, they will be closer to a healthy and sustainable life.

In Indonesia the pregnancy rate is increasing every year, this is also followed by the still high maternal mortality rate. It is known that in 2012, the MMR reached 359 per 100,000 inhabitants, an increase of around 57% compared to the conditions in 2007 which were only 228 per 100,000 inhabitants. Based on data from the 2017 health profile, Plaju Public Health Center is one of the health centers that has the highest number of visits of pregnant women in the city of Palembang, namely for the visit of pregnant women reaching 1,682 pregnant women who visited.

This supports the need for research on the physical activity of pregnant women on quality of life in the public health center in Palembang.

II. METHOD

Participant

Pregnant women visiting the Puskesmas Plaju of Palembang City in the January-December 2018 period. Based on the data obtained, the visits of pregnant women in the January-December 2018 period were 1085 people. The study sample was calculated using the Lemeshow formula with a total sample of 156 people.

Method of collecting data

Data collection was carried out interviews and measurements of LILA for nutritional status variables aimed at knowing the nutritional status of pregnant women. Interviews were conducted to obtain data on variables of physical activity, quality of life, and insomnia.

Method of Analysis Data

Data analysis was carried out quantitatively, namely univariate (descriptive) analysis, then proceed with bivariate analysis using Chi Square. Furthermore, variables with $p < 0.05$ were analyzed multivariately using logistic regression.

III. RESULTS

The following are the results of the frequency distribution of quality of life for pregnant women:

Table 1

Distribution of Quality of Life for Pregnant Women In Palembang City Plaju Health Center

| Category | Frequency (N) | Percentage(%) |
|-----------------|---------------|---------------|
| Quality of life | | |
| Good | 90 | 57,7 |
| Bad | 66 | 42,3 |
| Jumlah | 156 | 100 |

The results of the bivariate analysis can be seen in the following table:

Table 2

Frequency Distribution of Physical Activity on Quality of Life for Pregnant Women in Puskesmas Plaju Palembang City

| Category | Frequency (N) | Percentage |
|----------------------------------|---------------|------------|
| Physical Activity | | |
| Normal | 78 | 50 |
| excessive | 78 | 50 |
| The Age of Pregnant Women | | |
| High Risk | 32 | 20,5 |
| Low Risk | 124 | 79,5 |
| Gestational age | | |
| Trimester 3 | 46 | 29,5 |
| Trimester 2 | 110 | 70,5 |
| Education | | |
| Low | 64 | 41 |
| High | 92 | 59 |
| Occupation | | |
| Work | 86 | 55,1 |
| Doesn't work | 70 | 44,9 |
| Income | | |
| >UMR | 89 | 57,1 |
| <UMR | 67 | 42,9 |
| Paritas | | |
| Multipara | 56 | 35,9 |
| Primipara | 100 | 64,1 |
| Insomnia | | |
| Insomnia | 129 | 82,7 |
| Not Insomnia | 27 | 17,3 |
| Disease history | | |
| chronic | 38 | 24,2 |
| not chronic | 118 | 75,6 |
| Pregnancy exercise | | |
| No | 141 | |
| Yes | 15 | |

| Category | Frequency (N) | Percentage |
|---------------------------|---------------|------------|
| nutritional status | | |
| good nutrition | 52 | 33,3 |
| Bad nutrition | 104 | 66,7 |

After bivariate selection, p value <0.025 will be included in multivariate analysis using logistic regression. The final logistic regression model in results can be seen in table 3 as follows:

Table 3

Final Logistic Regression Modeling Results

| Variable | P Value | Prevalence Ratio 95% CI |
|---------------------------|---------|-------------------------|
| Physical Activity | 0,035 | 1,368 (1,038-1,804) |
| The Age of Pregnant Women | 1,000 | 0,969 (0,689-1,361) |
| Gestational Age | 0,001 | 1,594 (1,249-2,034) |
| Education | 0,005 | 1,503 (1,156-1,954) |
| Occupation | 0,004 | 1,549 (1,149-2,089) |
| Income | 0,019 | 1,433 (1,064-1,929) |
| Paritas | 0,687 | 1,084 (0,825-1,425) |
| Insomnia | 0,009 | 1,884 (1,087-3,264) |
| Disease History | 1,000 | 1,005 (0,735-1,373) |
| Pregnancy Exercise | 0,642 | 0,851 (0,579-1,252) |
| Nutritional Status | 0,010 | 1,462 (1,135-1,883) |

After bivariate selection, p value <0.025 will be included in multivariate analysis using logistic regression. The final logistic regression modeling results can be seen in table 4 as follows:

Table 4

Final Logistic Regression Modeling Results

| Variabel | p-value | PR Adjusted | 95% CI Lower | Upper |
|---------------------------|--------------|--------------|--------------|--------------|
| Physical activity | 0,045 | 2,077 | 1,016 | 4,246 |
| The age of pregnant women | 0,005 | 3,319 | 1,430 | 7,705 |
| Occupation | 0,003 | 3,001 | 1,454 | 6,191 |
| Nutritional status | 0,004 | 3,264 | 1,471 | 7,244 |

From multivariate analysis, physical activity has a p-value = 0.049, which is smaller than α (0.05). This shows that there is a significant relationship between physical activity and quality of life in pregnant women after being controlled by several variables suspected as confounding variables (PR = 2.213; 95% CI = 1.003 - 4.883). The next step is confounding testing to find out if there are other variables that affect the relationship between physical activity and quality of life for pregnant women at the Plaju Health Center in Palembang.

IV. DISCUSSION

The results of this study are that there is a relationship between the quality of life of pregnant women with physical activity of pregnant women in the public health center in Palembang, namely, gestational age, education, occupation, income, nutritional status, occupation and nutritional status.

Physical activity during pregnancy affects the good and bad quality of life, in a study conducted at the health center in Palembang, most pregnant women had a poor quality of life of 57.7%. According to the results found in the field, decreased quality of life of pregnant women is caused by several factors such as dissatisfaction with their health during pregnancy because pregnant women often experience nausea, vomiting, dizziness, no appetite. Some of the pregnant women feel more sensitive so that they become people who are not liked by the surrounding environment, can not accept changes in body shape after pregnancy, and have trouble sleeping.

Insomnia or insomnia is the inability of patients to obtain the amount of sleep needed to function efficiently during the day. Insomnia basically only has two main complaints, namely a person has difficulty entering sleep, and difficulty maintaining sleep. As many as 80.8% of pregnant women in Puskesmas Plaju, Palembang, complained that it was difficult to maintain sleep, according to the field survey, pregnant women often wake up at 1 pm and cannot sleep again until 5 in the morning. This happens to pregnant women who are pregnant in the second and third trimesters because pregnant women have begun to feel low back pain, anxiety will face childbirth and other problems such as pressure at work. (Khazie, 2013)

The work of pregnant women in this study mostly work as traders, the lack of physical activity in working mothers is due to the activity during working more in a sitting position so that the physical activity of pregnant women is low.

Research conducted in the field, as many as 49.1% of pregnant women were in the second trimester of pregnancy with poor quality of life. This is because pregnant women in the second trimester have

begun to feel changes in body shape due to drastic weight gain in pregnant women, some pregnant women do not accept the physical changes that occur during pregnancy, thus making pregnant women become very insecure to socialize with environment. In addition, psychological or emotional factors also greatly affect the declining quality of life of pregnant women such as increased anxiety about the health of the baby they are carrying and the fear of facing an imminent delivery process.

Research conducted by Mourady, 2017 says that declining quality of life for pregnant women can be influenced by several factors including reduced physical activity during pregnancy. Physical activity during pregnancy can be done through small movements that are safe during pregnancy that aims to eliminate excessive anxiety such as following routine pregnancy exercises performed at health centers or other health facilities, besides that the role of the family is very important for psychic pregnant women such as provide support in the form of attention, understanding, affection especially from husband, children if they already have children and families and relatives. This is to help the peace of mind of pregnant women so that the quality of life in pregnant women does not decrease.

V. CONCLUSION

Respondents to pregnant women at the health center in Palembang are expected to increase physical activity during pregnancy, pay more attention to nutritional status during pregnancy, routinely attend pregnancy exercises and pay attention to adequate sleep that should be obtained during pregnancy so that the mother and baby achieve good health. In addition, the puskesmas are advised to further enhance health promotion about the importance of physical activity during pregnancy and to be more active in inviting and promoting the importance of doing pregnancy exercises as one of the recommended physical activities during pregnancy.

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