The Correlation of High-Risk Age on Women of Reproductive Age and Post Partum Bleeding Case

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Abstract
During the post partum there are physiological changes such as uterine involution and lochia expenditure. Excess lochea discharge to more than 500 cc after delivery is called postpartum hemorrhage. The purpose of this study was to analyze the correlation of high-risk age and the incidence of postpartum hemorrhage in the maternity room of Syuhada Haji Hospital, Blitar City. The type of the study was analytic with a cross sectional approach. The population was all postpartum mothers who gave birth in the maternity room of Syuhada Haji Hospital, Blitar City on January – December 2018. The population was 672 respondents and the sample was 97. The sample was taken systematically by random sampling. The measuring instrument used documentation guidelines. The study was carried out by Chi-Square test. It was obtained that X2 count (0.00) was less than á (0.05), then H0 was rejected and H1 was accepted. In conclusion there was a correlation between highrisk age and postpartum hemorrhage incidence. It is expected that the research area will pay more attention in the handling and care of pregnant women of reproductive age so that at the age that is slightly at risk for the occurrence of postpartum hemorrhage, they will not experience postpartum hemorrhage. And women of high-risk age should be able to give birth at hospital in order to reduce complications.

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INTRODUCTION

The puerperium or post partum period is the period that begins after the birth of the placenta and ends when the uterus returns to its pre-pregnancy state. At this time there are physiological changes such as uterine involution and lochia expenditure. If the discharge of this lochia is excessive to more than 500 cc after delivery, it is called postpartum hemorrhage. It is estimated that 60% of maternal deaths due to pregnancy occur after delivery and 50% of postpartum deaths occur within the first 24 hours. The main cause of maternal mortality is bleeding (Nugroho, 2017)

Post partum bleeding is triggered by several factors like age; age less than 20 years and more than 35 years. However, it is undeniable that at the age of 20-35 years, postpartum hemorrhage can occur because of other factors besides the age factor, namely a bad history in previous deliveries (Fitirana., Nurwiandani, 2018)

Women under 20 years old or more than 35 years old who give birth have a risk factor to postpartum hemorrhage that can lead to maternal death. As mentioned above, at that age, the possibility of postpartum complications, especially bleeding, will be greater.

Women under 20 years old are vulnerable because the reproductive organs or organs are not ready to accept pregnancy and childbirth. Reproductive organ that are not ready, including internal organs such as the vaginal canal, pubic lips, urethral opening and perineum (the boundary between the vaginal canal and anus) are not ready to work to support childbirth. Then in women who are more than 35 years old, the condition of their reproductive organs is inversely proportional to those under 20 years. At this age, women experience aging, their organs begin to loosen and stiffen. With conditions like this, there is a regression or setback so that it is very influential on the acceptance of pregnancy and the process of giving birth. (Ayuningtyas, 2019)

Based on the preliminary study conducted in Maternity Room of Syuhada Haji Hospital, Blitar City, on January 1 - February 28 2018, it was found that the total number of patients experiencing primary postpartum hemorrhage was 3 people in the age of 20-35 years. Based on the data obtained and the theories behind it, the researchers wanted to examine the comparison of the incidence of postpartum hemorrhage and women of high-risk age.

The purpose of this study was to compare the occurrence of post partum bleeding in and high-risk age at Syuhada Haji Hospital in the Period of January - December 2018. The specific purposes were, 1) Identifying women of high-risk age, 2) Identifying the occurrence of postpartum hemorrhage. 3) Analyzing the correlation between high-risk age and the incidence of post partum bleeding at Syuhada Haji Hospital.

The benefit of this study was to provide information about the correlation of the occurrence of postpartum hemorrhage and high-risk age for further improvement of the health services.

METHOD

The method of the study used a correlational design with case control approach. The sample was all post partum patients who had been treated at Syuhada Haji Hospital for the January – December 2018 period who met the inclusion criteria, determined by a systematic random sampling technique. The sample was 97 respondents. The measuring instrument used in the study was the documentation guidelines. The guidelines in this study contained data about age and the occurrence of primary postpartum hemorrhage which were filled in according to medical record data at Syuhada Haji Hospital in the period of January - December. The data analysis used Chi Square to determine the correlation between 2 variables in the form of nominal data using a contingency table of 2 x 2 rows (columns).

RESULT

Table 1: The Frequency Distribution of Age of Post Partum

| No | Age of Post Partum Women | F  | (%) |
|----|--------------------------|----|-----|
| 1  | High-risk Age (<20years old) | 32 | 33  |
| 2  | High-risk Age (>35years old) | 65 | 67  |
|    | Total                     | 97 | 100 |
DISCUSSION
The Incidence of Post partum Hemorrhage on High-Risk Age Women

From research conducted on July 13-20 2019 at the Medical Record Section of the Syuhada Haji Hospital in Blitar City found that post partum bleeding occurred. Women of high-risk age, in the category of less than 20 years old and more than 35 years old. As much as 32 people (32.9%) of women of reproductive age had given birth at the Syuhada Haji Hospital in Blitar City. The case of bleeding was found due to retained placenta and vaginal rupture. This was supported by Hazmi, 2015, which stated that women who are less than 20 years old, their reproductive organs or organs are not ready to accept pregnancy and childbirth. The reproductive organs that are not ready include internal organs such as the vaginal canal, pubic lips, urethral opening and perineum (the boundary between the vaginal canal and anus) which are not ready to work to support childbirth.

In all cases, all women aged > 35 years who experienced postpartum hemorrhage were caused by retained placenta with a history of grandemultipara. The percentage of post partum bleeding at that age with a history of grandemultipara was very large, this showed the more of the age at risk, the more at risk of experiencing postpartum hemorrhage. Women at age more than 35 years are women who are classified as having a high risk for pregnancy and childbirth. At > 35 years, various diseases and complications in pregnancy and childbirth are increasing markedly. In women with the age more than 30 the uterus does not contract as fast as in younger women after delivery. Older women also increase complications during pregnancy, childbirth and the puerperium, such as high blood pressure or diabetes, bleeding due to placenta previa or disruption of uterine contractions. (Baktiyani et al., 2012)

As women getting older, the function of the reproductive organs also decreases. The function of the reproductive organs, especially the uterus, is that the uterine muscles must contract maximally shortly after the birth of the placenta to prevent bleeding. In addition, an increase in the number of degenerative diseases in pregnancy with old age such as pre-eclampsia, hypertension, diabetes mellitus will increase the risk of complications during childbirth (Nugroho, 2017). Pregnancy at a young age has a higher risk, organ function and egg maturation that has not been maximized has the potential to experience premature labor, placenta previa, abortion, preeclampsia, these conditions are also at a greater risk of bleeding (Baktiyani et al., 2012). This high rate of incidence could have been caused by other factors, for example by the history of pregnancy and the handling of delivery in the mother who gave birth was not in accordance with the APN, especially the handling of MAK III, so that the maternal age between 35 years in fact still shows a high number.

The Correlation of High-Risk Age and the incidence of Post Partum Hemorrhage

In order to find out the correlation between age and bleeding, a Chi-Square test was carried out to obtain X² count = 0.00 with = 0.05 then X2 count less than (0.00 < 0.05) which means X2 count is less than then H0 is rejected and H1 is accepted meaning that there is a correlation between high-risk age and postpartum hemorrhage. Based on Table 3 of 105 respondents in the age group < (0.05), which means H1 is accepted, it means that there is a correlation between maternal age and the incidence of postpartum hemorrhage. This is in accordance with the theory that one of the

Table 2: The Frequency Distribution of Post Partum Hemorrhage Case

| No | Case                  | F  | (%) |
|----|-----------------------|----|-----|
| 1  | Post Partum hemorrhage| 29 | 29.9|
| 2  | Post Partum without hemorrhage | 68 | 70.1|
|  | Total                 | 97 | 100 |

Table 3: Cross Tabulation of High-risk Age and Post Partum Hemorrhage Incidence

| Age     | Hemmorrhage | Without Hemmorrhage | Total |
|---------|-------------|---------------------|-------|
|         | n           | %                   | n     | %  |
| <20 years old | 13          | 13.4                | 16    | 16.6| 29  | 29.9 |
| >35 years old | 16          | 16.4                | 52    | 53.6| 68  | 70.1|
|         | 29          | 29.8                | 68    | 70.2| 97  | 100 |

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predisposing factors for postpartum hemorrhage is the mother's age at giving birth.

The comparison of the occurrence of postpartum hemorrhage and postpartum without hemorrhage at reproductive age with high-risk age showed both experiencing postpartum hemorrhage. This showed that postpartum hemorrhage did not always occur in women of high-risk age. It is also found that some of women of reproductive age experience postpartum hemorrhage (Baktiyani et al., 2012).

At this reproductive age moment, it was found bleeding that occurred due to retained placenta with a history of grandmultipara and at high-risk age, bleeding that occurred due to retained placenta and vaginal rupture at high-risk age <20 years and retained placenta with a history of grandmultipara at high-risk age > 35 years old. This showed that the factors that cause postpartum hemorrhage were not only caused by age, but also other causes that had been found, including retained placenta with a history of grandmultipara and vaginal rupture.

CONCLUSION
Almost half of the respondents or 41 women (42.3%) was on high-risk age. From 97 respondents, more than half or 54 women (55.5%) experienced postpartum hemorrhage. 41 respondents in the high-risk age group showed 32 people (32.9%) experienced postpartum hemorrhage, from the 22 respondents in the non-high-risk age group, most of the respondents or 34 women (35.2%) did not experience postpartum hemorrhage. Chi-Square was obtained \( X^2 \) count = 0.00 with = 0.05 then \( X^2 \) count less than (0.00 < 0.05) which meant \( X^2 \) count was less than 0.05 meant H0 was rejected and H1 was accepted meaning there was a correlation between high-risk age and post partum haemorrhage incidence.

SUGGESTION
From the results of the research obtained, the researchers hope that the research area pays more attention to the handling and care of pregnant women of reproductive age so that at the age that is slightly at risk for the occurrence of postpartum hemorrhage, they do not experience postpartum hemorrhage. Women of high-risk age should be able to give birth in hospital to reduce complications. Hospitals should be able to maintain or even further improve the quality of services, both in terms of administrative services, outpatient and inpatient medical services. Improving public health programs such as counseling and early detection of risky pregnancies and deliveries.

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CONFLICTS OF INTEREST
The authors declare no conflict of interest. Other funders than the authors had no role in the design of the study, data collection, data analysis, in the writing of the manuscript, and also in the decision for publication.

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