



## The Incidence Of Miscarriage, Abortion, Or Miscarriage In Pregnant Women Of Risk And Non-Risk Age For Giving Birth In Health Services

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### Abstract

One of the complications of spontaneous abortion is bleeding which if not treated quickly can increase maternal mortality rates. Vaginal bleeding is a common complaint that is often encountered and is a fairly high cause of a woman coming to the hospital, especially if it is known or suspected that there is a pregnancy. This study is a type of analytical survey, the design of this study is an observational analytical study with a cross-sectional approach. Samples were taken using a purposive sampling technique. The results of the cross-tabulation of the relationship between the age of pregnant women and the incidence of abortion obtained the results that at the age of pregnant women who are at risk, most experience abortion (92.3 %), while the age of pregnant women who are not at risk mostly do not experience abortion (84.3%). The conclusion is that there is a fairly strong relationship between the age of pregnant women and the incidence of abortion of 0.592 (based on the Contingency Coefficient test).

**Keywords:** Incident, Miscarriage, Abortion, Pregnant Women, Risk and Non-Risk Ages, Giving Birth, Health Services

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### 1. Introduction

Abortion is vaginal bleeding at a gestational age of < 20 weeks. In this condition, there is a threat of miscarriage, but the pregnancy product has not come out. The causes of





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abortion are divided into three factors, namely fetal, maternal, and paternal factors. Chromosomal abnormalities are fetal factors that can cause abortion. Some maternal factors that cause abortion are viral/bacterial infections, uterine anatomical abnormalities, endocrine disorders, immunological disorders, nutritional disorders, and lifestyle. Paternal factors consist of the father's age, occupation, environmental factors, and lifestyle that affect sperm quality so that it can cause abortion. Several other factors that are thought to increase the risk of spontaneous abortion include maternal age, education, activity or occupation, parity, pregnancy spacing, anemia, history of abortion, history of trauma, history of hypertension, and history of antenatal care.

According to Manuaba in Riska's research (2013), age can affect the incidence of abortion because at the age of less than 20 years the reproductive organs are not yet mature enough to become pregnant, which can be detrimental to the mother's health and the growth and development of the fetus, while abortions that occur at the age of 35 years are caused by reduced reproductive organ function and health problems such as anemia and chronic diseases.

According to Scoot in Reny's research (2013), the mother's age has an influence on pregnancy, at the age of less than 20 years is an age that is considered too young to get pregnant and give birth because the endometrium is not ready to receive the results of conception and if pregnant over 35 years old the reproductive organs and the function of other body organs have started to decline and the mother's health is not as good as before.

Abortion is a health problem that affects maternal morbidity and mortality throughout the world. Complications during pregnancy and after delivery can cause maternal death. Bleeding, high blood pressure during pregnancy, unsafe abortion, complications from childbirth, and infections are the causes of almost 75% of maternal deaths. One complication of spontaneous abortion is bleeding that is not treated quickly and can increase maternal mortality. Vaginal bleeding is a common complaint that is often encountered and is a fairly high reason for a woman to come to the hospital, especially if it is known or suspected that she is pregnant. Bleeding in early pregnancy can be caused by various conditions, but the most common is abortion (Maryunani and Yulianingsih, 2009).

World Health Organization (WHO), estimates worldwide, from 46 million births





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per year there are 20 million abortions. Approximately 13% of the total number of wives' deaths worldwide are caused by abortion complications, 800 women of whom died from abortion complications and at least 95% of them occurred in developing countries (Safe Motherhood. Newsletter, 2005 in Handayani 2011).

National estimates state that there are 2 million abortion cases in Indonesia each year. This means that there are 43 abortion cases per 100 live births (according to the 2000 population census, there were 53,783,717 women aged 15-49 years) or 37 abortion cases per year per 1,000 women aged 15-49 years (based on the Crude Birth Rate (CBR) of 23 per 1,000 live births) (Utomo, 2001 in Rachman, 2011).

The causes of abortion are a combination of several factors, namely, abnormal growth of the product of conception, abnormalities in the placenta, maternal disease, abnormalities of the genital tract, maternal age, parity or spacing (Prawirohardjo, 2009).

Pregnancy at the age of less than 20 years can cause problems such as abortion because the physical condition is not 100% ready. Age over 35 years is classified as a high-risk pregnancy that can endanger the mother and her fetus. A history of abortion in abortion sufferers also seems to be a predisposition to recurrent abortion. The incidence is around 3 – 5%.

Data from several studies show that after 1 spontaneous abortion, couples have a 15% risk of experiencing another miscarriage, while if they have had 2, the risk will increase to 25%. Several studies predict that the risk of abortion after 3 consecutive abortions is 30 – 45% (Prawirohardjo, 2009).

The incidence of abortion is difficult to determine because many induced abortions are not reported, unless complications occur. Spontaneous abortion and unclear gestational age, only gives few symptoms and signs so usually the mother does not report or seek treatment. Meanwhile, from known incidents, 15-20% are spontaneous abortions or ectopic pregnancies. Approximately 5% of couples trying to conceive will experience 2 consecutive miscarriages, and approximately 1% of couples experience 3 or more consecutive miscarriages (Wiknjosastro, 2009).

## 2. Research Methods

This research is an analytical survey type, the research design is an observational





analytical study with a cross-sectional approach. The sample was taken using a purposive sampling technique.

a) Inclusion criteria:

Pregnant women with a gestational age of less than 20 weeks who are diagnosed with spontaneous abortion.

b) Exclusion criteria:

- 1) Incomplete medical records.
- 2) Pregnant women with a history of uterine anatomical abnormalities.

### 3. Results And Discussion

#### a. Results

Data relevance, data validation, timeliness of data arrival and completeness are determined by data quality, while data relevance, data validity and data reliability are determined by data accuracy (Lapau, 2007). The suitability of the relationship between collected data, processed and analyzed so that specific objectives are achieved and the hypothesis is proven in a limited way is data relevance (Lapau, 2007).

Table 1. Cross Tabulation of Pregnant Mother's Age with Events

No	Age Mother Pregnant	Incident Abortion				Amount	
		Abortion		No Abortion		f	%
		f	%	f	%	f	%
1	Age at Risk	24	92.3	2	7.7	26	100
2	Age No At risk	8	15.7	43	84.3	51	100
	AMOUNT	32		45		77	

The results of the cross-tabulation of the relationship between the age of pregnant women and the incidence of abortion showed that the majority of pregnant women who were at risk experienced abortions (92.3 %), while the majority of pregnant





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women who were not at risk did not experience abortions (84.3%).

The results of statistical analysis between the age of pregnant women and the incidence of abortion using the Chi Square Test obtained  $\chi^2$  count of 41.627, then  $41.627 > 3.841$  ( $\chi^2$  Table), while the results of statistical analysis using the Contingency Coefficient formula obtained a result of 0.592. This figure illustrates a fairly strong relationship between the age of pregnant women and the incidence of abortion, and the results of data analysis to answer the research hypothesis were obtained by finding the odds ratio value. The results of the test of the possibility of abortion in pregnant women with risky ages using the Odd Ratio formula obtained the result  $OR = 5.885$ , meaning that pregnant women with risky ages will be 5.8 times more likely to experience abortion.

This result is in line with the theory that states that age under 20 years and over 35 years is the risk age for pregnancy and childbirth. The optimal reproductive age for a mother is 20-35 years. In the period under 20 years, the reproductive organs are not yet functioning perfectly, The mother's uterus and pelvis have not grown to adult size so that if pregnancy and childbirth occur, complications will be more easily experienced and at the age of over 35 years the reproductive organs are old so complications are easily experienced. In addition, the incidence of chromosomal abnormalities will increase after the age of 35 years (Prawirohardjo, 2005).

According to Wiknjastro (2007) the safe reproductive age for childbirth and delivery is 20-35 years, age below and above that age can increase the risk of pregnancy and childbirth. Maternal mortality in young mothers (<20 years) is 2-5 times higher than those aged 20-29 years and the mortality will increase again after the age of 35 years. Maternal age <20 years indicates that the mother's uterus and pelvis have not developed perfectly because women at this age are still growing so that the pelvis and uterus are still small. In addition, age above 35 years tends to cause health problems such as hypertension, Diabetes Mellitus, anemia, Pulmonary Tuberculosis and can cause prolonged labor and bleeding during labor and has the potential for congenital defects in the fetus (Hartanto, 2004).

According to Sujiyatini et al (2009) Abortion is a threat or expulsion of the





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results of conception at a gestational age of less than 20 weeks or a fetal weight of less than 500 grams. Based on research results, abortion mostly occurs in mothers aged <20 years. According to Rochjati (2003), in young primi the uterus and pelvis of the mother often have not grown to adult size, resulting in doubts about the safety and health of the fetus in the womb. In addition, the mother's mentality is not mature enough so that her self-care skills and her baby's are doubted. Dangers that can occur include premature birth and bleeding before the baby is born.

#### 4. Conclusion

There is a fairly strong relationship between the age of pregnant women and the incidence of abortion of 0.592 (based on the Contingency Coefficient test). Complications in the mother and fetus that may occur in early pregnancy are as follows:

##### 1) Bleeding

Bleeding can be treated by emptying the uterus of the remnants of the products of conception and if necessary by giving a blood transfusion. Death due to bleeding can occur if help is not given in time.

##### 2) Perforation

Uterine perforation in scraping can occur especially in the uterus in a hyperretroflexion position. If this event occurs, the patient needs to be observed carefully if there are danger signs, laparotomy needs to be performed immediately, and depending on the extent and shape of the perforation, suturing of the perforation wound or hysterectomy is needed. Uterine perforation in abortion performed by a layperson causes a critical problem because uterine injury is usually extensive, possibly also occurring in the bladder or intestines. With the suspicion or certainty of perforation, laparotomy must be performed immediately to determine the extent of the injury, to then take the necessary measures to overcome complications.

##### 3) Infection

Infection of the uterus and adnexa can occur in any abortion but is usually found in incomplete abortions associated with an unsafe abortion.

##### 4) Shock

Shock in abortion can occur due to bleeding (hemorrhagic shock) and due to





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severe infection (endoseptic shock).

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**Disclosure of conflict of interest**

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**Statement of informed consent**

Every action we take as authors is a mutual agreement or consent.

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