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Risk Factors of Pregnancy Incidence before 20 Years Old in Indonesia in 2016

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Abstract

Young age pregnancy is an important public health problem, due to its high association with mortality and morbidity for both mother and the child and also reflect the country's welfare. Teenage mother often have problems related to labor or postpartum period. Lack of knowledge can be caused by low education, which create barrier upon receiving message. Highly educated people tend to have more information, from other people as well as press, and they're also more open to new value compared to less educated people. Marriage below 20 years increase the odd of pregnancy before 20 years. Knowledge about contraceptives is crucial and related to Maturing Age of Marriage programe. Problems in Maturing Age of Marriage programe will increase pregnancy below 20 years rate. Descriptive analysis related to pregnancy risk factors below 20 years old is needed throughout Indonesia.

Keywords: Marriage age <20 years; contraceptives knowledge; pregnancy <20 years.

Introduction

Children quality reflect country's welfare. Maternal and child mortality reflect people health status and welfare.¹ Based on the Indonesian Demographic and Health Survey 2012, maternal mortality rate associated with pregnancy and childbirth accounted for 259 per 100,000 live births. Maternal factor that affects the health status of children and mothers is age during pregnancy and childbirth.^{2,3}

Maternal age at the time of pregnancy affects the mother's pregnancy because it is related to the maturity of reproductive organs and mother's psychological condition to receive pregnancy. Young age pregnancy (less than 20 years) is one of 4T criteria of high risk pregnancy.^{4,5}

Based on riskesdas (Basic National health research) 2013 on women aged 10-54 years, 2.6 percent first marriage occurs at age less than 15 years and 23.9 percent married at age 15-19 years.⁶ The result of Indonesian Demographic and Health Survey in 2012, median age of first marriage of Indonesian women was 20.1 years; while the Indonesian Demographic and Health Survey 2007 showed the median of first marriage was at the age of 19.8 years and the results of the 2002-2003 Indonesian Demographic and Health Survey showed 19.2 years. This shows increasing trend of the median age of first marriage within the last 10 years although not yet in accordance with the expected target of 21 years.²

Early marriage that causes young pregnancy often occurs due to parents factor. They often think that girls is an economic burden and marriage is one of the attempt to maintain family life.⁷ The younger the marriage age, the lower the level of education achieved by the child because of the responsibility of being a wife and expectant mother.⁸ Teenagers in rural areas are more likely to be mothers compared to urban area.²

Age Specific Fertility Rate (ASFR) for the age 15-19 years describes the number of pregnancies in adolescents aged 15-19 years. Results of the Indonesian Demographic

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and Hea⁴ Survey 2012, ASFR for 15-19 year olds were 48 per 1,000 women aged 15-19 years while the target expected in 2015 was 30 per 1,000 women aged 15-19 years.² Younger the marriage age means longer time span of reproduction.² Riskesdas 2013 showed the pregnancy rate at age less than 15 years old was 0.02 percent, while pregnancy rate in adolescence (15-19 years old) was 1.97 percent. Pregnancy regulation is crucial because it affects the fertility rate in Indonesia.²

Pregnancy below 20 years of age is influenced by education, contraceptive knowledge, contraceptive behaviour, culture, adolescent/dating behavior, health care, providers and income. Teenage women, at age of 15-19 years, responsible for 15 million birth each year. According to the data from Central Bureau of Statistics, teenage marriage rate in Indonesia was 8.8%. In developing country, 1 to 4.4 million teenagers have a miscarriage; and more procedures are performed under unsafe conditions. Complications of pregnancy and childbirth are the leading causes of death between the ages of 15-19. Limited knowledge or limited access to health care systems was the leading factors for pregnancy complications.⁹

Lack of knowledge can be caused by low education, which will create barrier upon receiving message or information.¹⁰ In the other hand, higher education means it easier to receive the information.¹¹

Data from Central Java showed that women who married before 21 years are 54.67%. The highest percentage of marriage before 21 years are in Rembang (72.17%). In the other hand, there are 13.82% men who married under 25 years, with highest percentage in Banjarnegara (23.59%). Underage marriage will lead to pregnancy under <21 years of age. This also happened in several provinces throughout Indonesia.

From data above, we decided to create a descriptive study to find risk factors related to high number of parity before 20 years old throughout Indonesia.

Method

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A descriptive, cross sectional study was conducted to describe several factors related to teenage pregnancy: maternal education, marriage age, contraceptive knowledge and the age of first childbirth.

Target population were Indonesian woman who pregnant before 20 years old. The sample of this study

were 456,686 Indonesian woman who were pregnant before 20 years 2016. Univariate and bivariate data analysis were provided in this

Results and Discussions

Characteristics of subject are shown in Table 1.

Table 1. Univariate analysis of education level, married age, contraceptive knowledge, first birth and pregnancy <20 years

Variable	f	%
Education Level		
No formal education	954	2.09
Elementary, not graduate	0	0
Elementary, graduate	17.377	38,13
Junior High, not graduate	0	0
Junior High, graduate	13.929	30,57
Senior High, not graduate	0	0
Senior High, graduate	8.682	19,05
University / academy	4627	10,16
Marriage age		
20-35 years	26,907	59,05
< 20 years	18,662	40,95
Contraceptive Knowledge		
No	116	0,25
Yes	45,453	99,75
First Birth		
20-35 years	33,429	73,36
< 20 years	12,140	26,64
Pregnancy < 20 years		
No	33,429	73,36
Yes	12,140	26,64

Based on table 1.1, the highest education of Indonesian fertile women is elementary school (33.18%) and graduated from junior high school (30.57%). As many as 59.05% of sample married at 20-35 years, and 99.75% of them know about contraception. There are 73.36% women who not pregnant before 20 years

In our study, majority of childbearing age women have low education level, which consisted of primary school education and junior high school, 38.13% and 30.57% respectively. Unicef (2008) mentioned that factors contributing to teenage pregnancy are lack of education and information about sexual health especially from parents.

Table 2. Frequency distribution of level education on teenage pregnancy in Indonesia 2016

Pregnancy < 20 years	Education Level										Total	
	No Formal School		Elementary, Graduated		Junior High, Graduated		Senior High, Graduated		University / Academy			
	f	%	f	%	f	%	f	%	f	%	f	%
No	500	1,50	10,307	30,83	10,669	31,92	7,529	22,52	4,424	13,23	33,429	100,00
Yes	454	3,74	7,070	58,24	3,260	26,85	1,153	9,59	203	1,67	12,140	100,00

The results also showed that the teenage pregnancies were more prevalent among childbearing age women who did not go to school and graduated from elementary school, 3.74% and 58.24% respectively. Childbearing age women with higher education have lower teenage pregnancy incidence (graduated from junior high school, graduated from senior high school, and PT / academy; 31.92%, 22.52% and 13.25% respectively). Childbearing age women with low education have

difficulty to digest messages or information conveyed and hamper their development and attitudes toward newly introduced values.

As for childbearing age women with junior high school, senior high school and PT / academy education are known to have a smaller percentage of teenage pregnancy; this result showed that highly educated women tend to get more information either from other people or from press.

Table 3. Frequency distribution of marriage age on teenage pregnancy in Indonesia 2016

Pregnancy < 20 years	Marriage Age				Total	
	20 – 35 years		<20 years			
	f	%	f	%	f	%
No	26.546	79,41	6.883	20,59	33.429	100,00
Yes	361	2,97	11.779	97,03	12.140	100,00

The results showed more than half of reproductive age women married at age 20 - 35 years a percentage of 59.05%. From the study, it is known that women who married at the age of 20-35 years did not experience teenage pregnancy (79.41%). In the other hand, almost all women who married before 20 years old have pregnancy under the age of 20 years with a percentage of 97.03%. Unicef (2008) mention that the factors contribute to teenage pregnancy are traditions that lead

to early marriage (developing countries) and lack of access to tools that prevent pregnancy. The statement is in accordance with our results in which women who married at the age of less than 20 years tend to have a pregnancy under the age of 20 years. In the reproductive period, under 20 years of age is the recommended age for delaying marriage and pregnancy.¹² Pregnancy under the age of 20 is said to be risky, with mortality rate 2-4 times higher than healthy reproduction.

Table 4. Frequency distribution of contraceptive knowledge on teenage pregnancy in Indonesia 2016

Pregnancy < 20 years	Contraceptive knowledge				Total	
	No		Yes			
	f	%	f	%	f	%
No	80	0.24	33,349	99.76	33.429	100,00
Yes	36	0.30	12,104	99.70	12.140	100,00

Majority of Indonesian childbearing age women already known about the contraception type with a percentage of 99.75%. Knowledge is obtained after the person senses a particular object. Sensing occurs through the five senses of the human senses: sight,

hearing, smell, taste and touch. Most of the knowledge is obtained through the eyes and ears. Knowledge is a very important factor for a person's behavior.

In our study, the number of childbearing age women

who have and do not have knowledge about contraception were almost the same percentage to have a teenage pregnancy, where teenage pregnancy in women without contraceptive knowledge is slightly higher (0.30%) and women have contraception knowledge have a slightly greater percentage (99.76%) in terms of pregnancy after 20 years. Changing a person's health behavior

can be done by providing health education.^{13,14} Lack of knowledge about high-risk pregnancies is influenced by education. Women of childbearing age who have low education will find it difficult to digest messages or information conveyed and hamper their development and attitudes towards newly introduced values.^{13,15}

Table 5. Frequency distribution of age of first time give birth of <20 years old reproductive age women in Indonesia 2016

Pregnan-cy< 20 years	First Birth				Total	
	20 – 35 years		<20 years			
	f	%	F	%	f	%
No	33,429	100,0	0	0.0	33,429	100.0
Yes	0	0.0	12,140	100.0	12,140	100.0

²⁰ From our study, it is known that childbearing age women who first gave birth in the age range 20-35 years was 73.36%. Teenage pregnancy has a higher pregnancy, delivery and post partum complication compared to healthy reproductive individual (age 20-35 years). It is caused by immature reproductive organs to conceive, which can harm the mother's health, development and growth of the fetus. In addition, teenage pregnancy can cause other problems due to imperfect body growth, socioeconomically disadvantages, difficulty in childbirth, or not ready to perform the mother role.

Conclusions

Indonesian childbearing age women in 2016 have a low level of education, which is elementary and junior high by 38.13% and 30.57% respectively. Childbearing age women who do not receive formal education and have primary school education have a greater percentage of pregnancies under the age of 20 with a percentage of 3.74% and 58.24% respectively.

Indonesian childbearing age women in 2016 are known to have contraceptive knowledge with percentage of 99.75%. Women who unaware of this knowlegde (0.3%) have pregnancy under the age of 20.

Most of Indonesian women married at the age 20-35 years with percentage of 59.05%. Most of Indonesian women have their first child at the age 20-35 years with a percentage of 73.36%.

From the results above, active counseling and interpersonal communication from midwifery is required for all married couple, so that unexpected

circumstances and adverse events in teenage pregnancy can be anticipated as early as possible.

Counseling and interpersonal communication for couple below 20 years is required to prevent teenage pregnancy and risk related to it can be anticipated as early as possible.

⁸ **Conflict of Interest:** The author reports no conflicts of interest in this work.

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