

## Original articles

## EDUCATION LEVEL IN THE RELATION TO ADOLESCENTS PREGNANCY IN INDRAMAYU (A Case Study: North Coast Region of Indramayu)

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### ABSTRACT

**Background:** Adolescents' pregnancy negatively impacts their health and their babies, also gives socio-economics impacts and risks of premature birth, low birth weight (LBW) and bleeding that can increase maternal and infant mortality. This study aims to determine the relationship of education level with the pregnancy at the age of adolescence.

**Methods:** This research using observational analytic design with *cross-sectional* to asses the relationship between education level ties and pregnancy at the age of adolescence. The subject of this research is pregnant women in the North Coast Region of Indramayu who meet the inclusion criteria and are willing to sign the consent form after being explained. The samples of 200 pregnant women were taken using *consecutive sampling*.

**Results:** The results obtained p-value = 0.045 smaller than the alpha value (<0. 05) it can be concluded that there is a relationship between the level of education of mothers with pregnancy in adolescence. The analysis we found the value of OR of 3.336 (95% CI 1.098 to 10.140) means, less educated mother 3.336 times risk higher to get married and pregnant at the age of adolescence.

**Conclusions:** It is expected that the health center, government worker and the Office of Religious Affairs (KUA) able to work together to provide better education for adolescents and prospective brides in order not to get pregnant at an early age.

**Keywords:** *Pregnancy, youth age, education.*

### INTRODUCTION

Teenage pregnancy is a pregnancy that occurs in women aged less than 20 years old. The incidence of teenage pregnancy in the world among women aged 15-19 is 49 per 1000 women. According to statistics, Texas has the highest teenage pregnancy rate is 62 per 1,000 women, while the incidence of teenage pregnancy in Indonesia is 48 per 1000 women.<sup>1</sup> According to Riskesdas (2013), it was stated that 2.6% of women between 10-54

years old were married for the first time in less than 15 years old and 23.9% of married women were aged 15 to 19.<sup>2</sup>

Gestational age of adolescence is a health problem that is increasing throughout the world, including in Indonesia. Many factors can influence adolescents to get married at a young age including less care, poverty, peer influence and education. The lower a person's education, the more encouraging the speed of young marriages.<sup>3</sup>

Based on the research of Maria et al (2015) that education and teenage pregnancy in Brazil show a strong correlation where adolescents 13-19 years old drop out of school due to pregnancy, more than 50% of teenage mothers do not graduate from high school and less than 2% of teenage mothers get a scholar degree when they are 30 years old.<sup>4</sup> Duncan research results (2011) about 30% of women in the United States get pregnant before the age of 20 and 80% of men do not get married, which means adolescent mothers raise children without a father.<sup>5</sup>

Adolescence pregnancy impacted negatively on the health of adolescents and their babies, also have an impact on social economic and premature delivery, heavy weight low birth (LBW) and bleeding that can enhancing maternal and infant mortality. Pregnancy in adolescents is also associated with unwanted pregnancies resulting in unsafe abortion. Labor in women under 20 years old has contributed to the high neonatal, infant and under-five mortality rates. Neonatal, post-natal mortality rates for infants and toddlers in mothers aged less than 20 years old are higher than in mothers 20-35 years old.<sup>6</sup> The first age marriage performed by every woman has a risk of childbirth. The younger woman get married is facing the greater risk for the safety of mother and child. This happens because the uterus is not ready yet for producing children and is not ready mentally in the household.<sup>7</sup>

Teen pregnancy is even worse for mothers and fetuses, but the number of events has increased in Indramayu. Because of the various negative impacts on reproductive health and a social life that are allegedly still many that need to be studied in-depth, the purpose of this study is to find out the relationship between education level and pregnancy in adolescence so that it can be used as a basis for conducting further research on the enumeration of pregnancy at age adolescents so that the impact that occurs able to decrease teenage pregnancy rates and reduce complications, maternal and fetal death.

## **RESEARCH METHODS**

This research type is observational analytic research with a *cross-sectional* design to obtain information through education about pregnancy at the age of adolescence. Subjects of this study are pregnant women in the North Coast Region of Indramayu that met the

inclusion criteria of research and are willing to sign a consent form after being explained. There are 200 pregnant women as a sample and the technique is using *consecutive sampling*. Data collection instruments using a questionnaire in the form of a *checklist*. The statistical analysis used in this study is the *Chi-Square* test. To calculate the risk magnitude is using *Odd Ratio* (OR) with a *confidence interval* of 95%. The Research Point conducted in the territory of the North Coast region of Indramayu in May - July 2019.

## RESULTS

**Table 1 Distribution of pregnant women based on education and age groups in the North Coast of Indramayu in 2019**

Variable	Frequency (n)	Percentage (%)
<b>Mother's Education</b>		
Uneducated	19	9.5
Elementary school	103	51.5
Middle School	53	26.5
High school	25	12.5
University students	0	100.0
<b>Mother's age</b>		
Teenager	72	36.0
Adult	128	64.0
<b>Amount</b>	<b>200</b>	<b>100.0</b>

Based on Table 1, it is known that more than half of mothers pregnant educate in Elementary School, there were only a small proportion (12.5%) of pregnant women who entered high school, and almost half (36.0%) pregnant adolescents and up to (64.0%) pregnant women aged adults.

**Table 2 Education level in relation to adolescents Pregnancy in the North Coast of Indramayu 2019**

Mother's Education Level	Age of Pregnant Women				Total		OR (95% CI)	Value of p
	Teenager		Adult		N	%		
	n	%	n	%				
<b>Low</b>	68	38.9	107	61.1	175	100.0	3,336	0.045
<b>High</b>	4	16.0	21	84.0	25	100.0	(1,098-10,140)	
<b>Amount</b>	<b>72</b>	<b>36.0</b>	<b>128</b>	<b>64.0</b>	<b>200</b>	<b>100.0</b>		

Based on Table 2, found that of 175 pregnant women with low education, there were 68 (38.9%) who become pregnant in their teens and 107 (61.1%) were pregnant in adulthood. While from 25 high education pregnant women, only 4 (16.0%) mothers who became pregnant in their teens and as many as 21 (84.0%) mothers who became pregnant in their adult. The results of the analysis using the Chi-Square test to obtain p-value = 0.045 (<0.05), that there is a relationship between the level of education for pregnancy in adolescence. The result of the analysis also shows the value of OR = 3.336 with 95% CI 1.098-10.140, meaning that mothers with low education have a risk of 3.3636 times higher to get pregnant in their teens when compared to mothers with high education. Low education in this study is pregnant women who are the primary education in elementary school and junior high school while for higher education in senior high school and university.

## DISCUSSION

Based on the results of p-value = 0.045 less than the alpha value (<0, 05) it can be concluded that there is a relationship between maternal education level through teen pregnancy. An educated mother has low-risk, 3.336 times more likely to become pregnant at the age of adolescence. The results of this study are in line with Arimbawati's (2016) study which states that low levels of education have a risk at 3.281 times greater in early marriage than higher education.<sup>8</sup> The education level associated with adolescents pregnancy, the lower the of Education adolescents it will risk teen pregnancy.<sup>9</sup> The results of research conducted to Amoran (2012) teenage pregnant women mostly have low levels of education.<sup>10</sup> This is also in line with research conducted by Katayamoyo (2010) in Luksaka that respondents who have attained secondary education are 50% less likely to get pregnant than respondents who have achieved tertiary education.<sup>11</sup> However, this study is not in line with the research of Dewi et al (2016) which states that there is no significant relationship between education and teenage pregnancy (p = 0.47).

Education is an important factor in the developing adolescent and attempts to develop personalities, abilities inside and outside of school that lasts a lifetime. Low levels of education and knowledge affect limited patterns of thinking that will impact individual behavior.<sup>12</sup> Education will affect a person's knowledge, higher one's education level, easier to receive information from others as well as from the mass media. With a lot of information obtained it can increase the knowledge of someone who can determine good attitudes in decision making. Another research conducted by Meriyani, DA et al (2016) stated that the lack of knowledge about reproductive health and teen age pregnancy give 12.8 times greater risk to the pregnancy teens, in addition to the research conducted in Lusaka showed that the ignorance of teenagers about Hormone function and reproductive health contribute to teenage pregnancy 6-fold higher.<sup>13</sup> In line with Yunita's study (2015) that adolescents with basic education have an opportunity or risk of having early marriage 9,750 times greater than adolescents who have secondary education.<sup>14</sup>

Teenage pregnancy is a pregnancy that occurs less than 20 years old which negatively impacts the health of adolescents and their babies as well as socio-economic impacts and the risk of premature birth, low birth weight (LBW) and bleeding that can increase maternal and infant mortality.<sup>15</sup> The age factor has a very strong influence on the development of female reproductive organs, where healthy reproduction (20-35 years old) is the safest age for a woman to get pregnant and give birth. The age that is too young (<20 years old) has a greater risk for giving birth to an unhealthy baby due to the condition of the reproductive organs that are not mature enough to give birth so it is susceptible to complications.<sup>16</sup>

Lack of education and knowledge women are gained to make decisions without considering the impact that will occur. Therefore, to increase knowledge for adolescents who cannot continue their education to a higher level, they can participate in non-formal education such as attending adolescent reproductive health counseling and classes of pregnant women to be rich in information. It is hoped to prevent adolescence pregnancy who are not planning to get pregnant less than 20 years old because the reproductive organs are not yet ready to be fertilized / immature well as to use contraceptives for birth control, but when pregnancy happens, the examine antenatal care needed to do a routine for early detection of maternal and fetal well-being.

## **CONCLUSIONS AND RECOMMENDATIONS**

Pregnancy-related to adolescents maternal education ( $p = 0.045$  and  $OR = 3.336$ ). It is expected that related parties such as the health center, government worker and the Office of Religious Affairs (KUA) able to work together to provide better education to prospective young couples as not to get pregnant at an early age.

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