Teenage Pregnancy in Rural Indonesia: Does Education Level Have a Role?

Ratna Dwi Wulandari✉[1)], Agung Dwi Laksono[2)], Ratu Matahari[3)]
[1]Faculty of Public Health, Universitas Airlangga, Surabaya Indonesia
[2]National Research and Innovation Agency Republic of Indonesia, Jakarta Indonesia
[3]Faculty of Public Health, Ahmad Dahlan University, Yogyakarta Indonesia
✉Email: ratna-d-w@fkm.unair.ac.id

ABSTRACT

***Background**: Teenage pregnancy is a high-risk pregnancy. Teenage pregnancy often gets social sanctions in the form of stigma from the community, and the loss of school rights. **Objective**: The research aims to analyze the role of education in teenage pregnancy in rural Indonesia. **Methods**: This study analyzed the data from Indonesian Demographic and Health Survey 2017 using a cross-sectional approach. The unit of analysis was women aged 19-24 years old. The study pooled 1,982 women as samples. Besides the education level, other independent variables analyzed were marital, employment, and wealth. In the final stage of the study, a multivariate test with binary logistic regression was carried out. **Results**: The results showed that women with secondary education were 0.451 times less likely to experience teenage pregnancy than women with primary education (95% CI 0.354-0.574). Higher education was 0.110 times less likely to experience teenage pregnancy than primary education (95% CI 0.070-0.171). The study found two other variables related to teenage pregnancy in rural Indonesia besides educational factors. The two variables are employment status and wealth status. **Conclusion**: The study concluded that education level is associated with to teenage pregnancy in Indonesia's rural areas. The lower the education level, the higher the chances of experiencing teenage pregnancy.*

***Keyword**: Education level, Indonesia, Maternal health, Teenage pregnancy.*

INTRODUCTION

Teenage marriage is a global problem. The majority of adolescents who marry at an early age do not have sufficient readiness to become parents. The shackles of poverty often crush teenage couples, so the pregnancy and childbirth care are not guaranteed properly (Panjaitan, 2019). Teenagers are faced with severe consequences for their lives due to early marriage. Some of the values that will be met by adolescents who marry at an early age include psychological impacts and unfulfilled reproductive health rights. Women become subordinate groups because of the low bargaining position of their husbands in married life. Women's opportunities to be involved in decision-making in the household are very weak; they do not get the chance to go to school and earn a living, so often choked with poverty (Wulandari and Laksono, 2020a).

Based on data from the 2013 Indonesian Basic Health Survey, it was reported that 2.6% of women aged 10-54 years were married at the age of 15 years old, and 23.9% married at the age of 15-19 years, thus contributing the highest maternal mortality due to pregnancy complications (Priyadarshini, 2020). Meanwhile, the 2017 Indonesia Demographic and Health Survey (IDHS) informed that 10% of married women were under 18 years old (National Population and Family Planning Board *et al.*, 2018). The high number of teenage marriages was influenced by several factors, including low education, socioeconomic status, culture, religion, and internet access (Kasiati and Isfentiani, 2020; Ningsih *et al.*, 2020). Early marriage in Indonesia is strongly related to the socio-economic and cultural conditions of the community, so it is only natural that marriage is determined by the parents than the bride and groom. Low family economic conditions, economic levels at the poverty line, and not having the opportunity to get education increase the risk of young girls in early motherhood

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(Widyastari, Isarabhakdi and Shaluhiyah, 2020).

Globally, it is estimated that 14 million children are born to women aged 15-19 years each year. Meanwhile, in low-middle-income countries, an estimated 2.5 million babies are born to women under 16 (Indarti *et al.*, 2020). Adolescents who marry at a very young age are very vulnerable to high risk pregnancy, including miscarriage, low birth weight babies, maternal mortality, and infant mortality (Kasiati and Isfentiani, 2020; Laksono and Wulandari, 2020). Global teen pregnancy trends in 2015 showed 47 per 1000 births for women under 20. Twenty-one million girls aged 15-19 are in developing countries, and around 2 million are under the age of 15. Teenage pregnancies are unwanted because of child marriage, which is common in rural areas with low socioeconomic status (Sharaztasya Putri, 2016).

This condition is also reinforced by social and religious values that perceive marriage as a way to ease the burden on the family (Pratiwi *et al.*, 2019). Spiritual values are often used as an excuse for teenagers to marry to avoid sexual acts that violate the law (Widyastari, 2019). Besides, strong cultural values, especially in rural areas, make young girls very vulnerable to the practice of teenage marriage to meet family law standards that expecting their daughter to marry before 16 years old, as happened in rural Indramayu, West Java- Indonesia (Grijns and Horii, 2018).

Pregnant teenagers often receive social sanctions in the form of stigma from the society and the loss of school rights.. Education is the right of every citizen, regulated in article 31 of the 1945 Constitution, and aims to improve the community's quality of life and welfare. However, in reality, there are still cases of pregnant teenagers who are expelled from school. It is difficult to regain their confidence to return to school, so that it becomes a double burden for adolescents, their right to education is not fulfilled and the responsibility for reproductive health. The Indonesian government does not yet have clear rules regarding legal protection and education discrimination against adolescents who experience pregnancy. Education is crusials for young women to increase their knowledge and skills, and open up opportunities to improve their welfare (World Health Organization, 2020a). This study aims to analyze the role of education in teenage pregnancy in rural Indonesia

METHODS

Data Source

The authors used data from the 2017 Indonesian Demographic Data Survey (IDHS) as analysis material. The analysis unit in this cross-sectional study is women aged 19-24 in rural Indonesia. The sample was determined using stratification and multistage random sampling methods. The study analyzed 1,982 participants as a sample.

Variables

The dependent variable was teenage pregnancy. Teenage pregnancy is a pregnancy that occurs in adolescence at the age of less than 20 years. This variable consists of two categories: not experiencing teenage pregnancy and experiencing it.

The study tested four independent variables: education level, marital status, employment status, and wealth status. The education level is based on the husband's last education certificate, which consists of three criteria: primary, secondary, and higher education. Marital status is divided into three categories: never in a union, married/living with a partner, and divorced/widowed. Employment status comprised of two categories: unemployed and employed.

The wealth index is calculated based on wealth (amount and type of goods owned). The most important things in terms of wealth include televisions, bicycles, or vehicles, as well as housing aspects such as drinking water supplies, bathroom amenities, and the main materials used to construct the house's foundation. The survey determined the score trough an analysis of the principal component used in the survey. The household score for each household member is used to construct national wealth quintile, which is then distributed into five equal categories, each representing 20% of the population (Wulandari *et al.*, 2019, 2022). Moreover, the wealth status comprised of five levels: poorest, poorer, middle, richer, and richest.

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Data Analysis

In the early stages of the analysis, a bivariate test with chi-square was done. In the second stage, this study conducted a multivariate test with binary logistic regression. Moreover, the research used SPSS 26 software for all analysis stages.

Ethical Approval

The National Institute for Health Research and Development of the Indonesian Ministry of Health has approved the 2017 IDHS after conducting ethical tests. ICF International permitted this study to use the 2017 IDHS data via https://dhsprogram.com/data/new-user-registration.cfm

RESULTS

Table 1 displays the bivariate test results between education level and other variables involved in this analysis. Table 2 informs that all education levels are dominated by women who experienced teenage pregnancy, except for women who have higher education, which is dominated by those who do not experience teenage pregnancy.

All education categories are dominated by married women/living with partners based on marital status. Meanwhile, regarding employment, all types of education levels are dominated by unemployed women. Then all education level categories are dominated by the poorest women based on wealth status.

Table 1. The Bivariate Analysis Results (n=1,982).

Characteristics	Education Level						p-value
	Primary		Secondary		Higher		
	n	%	n	%	n	%	
Teenage pregnancy							** <0.001
- No	110	21.1	524	39.6	100	72.5	
- Yes	412	78.9	798	60.4	38	27.5	
Marital status							0.855
- Never in union	3	0.6	8	0.6	1	0.7	
- Married/Living with partner	500	95.8	1259	95.2	129	93.5	
- Divorced/Widowed	19	3.6	55	4.2	8	5.8	
Employment status							* 0.001
- Unemployed	318	60.9	913	69.1	83	60.1	
- Employed	204	39.1	409	30.9	55	39.9	
Wealth status							** <0.001
- Poorest	342	65.5	589	44.6	47	34.1	
- Poorer	105	20.1	356	26.9	25	18.1	
- Middle	55	10.5	224	16.9	26	18.8	
- Richer	16	3.1	109	8.2	19	13.8	
- Richest	4	0.8	44	3.3	21	15.2	

Note: ∗ p < 0.01; ∗∗ p < 0.001.

Table 2 shows the binary logistic regression results of teenage pregnancy in rural Indonesia. The education level is proven to affect teenage pregnancy in rural Indonesia. Secondary education is 0.451 times less likely than primary education to experience teenage pregnancy (AOR 0.451; 95% CI 0.354-0.574). Higher education is 0.110 times less likely than primary education to experience teenage pregnancy (AOR 0.110; 95% CI 0.070-0.171). The results show that the better the education level, the lower the likelihood of women in rural Indonesia experiencing teenage pregnancy.

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Table 2. Binary logistic regression of teenage pregnancy in Indonesia's rural area (n=1,982).

Predictors	Teenage Pregnancy			
	p-value	AOR	95% CI	
			Lower Bound	Upper Bound
Education level: Primary	-	-	-	-
Education level: Secondary	*** <0.001	0.451	0.354	0.574
Education level: Higher	*** <0.001	0.110	0.070	0.171
Employment status: Unemployed	-	-	-	-
Employment status: Employed	*** <0.001	1.470	1.195	1.808
Wealth status: Poorest	-	-	-	-
Wealth status: Poorer	* 0.014	0.744	0.588	0.942
Wealth status: Middle	*** <0.001	0.595	0.452	0.782
Wealth status: Richer	** 0.003	0.572	0.395	0.828
Wealth status: Richest	0.481	0.827	0.488	1.402

Note: $*$ p < 0.05; $**$ p < 0.01; $***$ p < 0.001.

Apart from educational factors, two other variables are also significantly related to teenage pregnancy in rural Indonesia. The two variables are employment status and wealth status. Employed women have 1,470 times more likely than unemployed women to experience teenage pregnancy (AOR 1.470; 95% CI 1.195-1.808).

On the other hand, Table 2 shows that wealth status partially affects teenage pregnancy in rural Indonesia. According to wealth status, the poorer is 0.744 times less likely than the poorest to experience teenage pregnancy (AOR 0.744; 95% CI 0.588-0.942). The middle group is 0.595 times less likely than the poorest to experience teenage pregnancy (AOR 0.595; 95% CI 0.452-0.782). Meanwhile, the richer is 0.572 times less likely than the poorest to experience teenage pregnancy (AOR 0.572; 95% CI 0.395-0.828). Otherwise, there is no significant difference between the richest and the poorest in influencing the incidence of teenage pregnancy in rural Indonesia.

DISCUSSION

Teenage pregnancies are more common in marginalized communities and are frequently triggered by poverty, lack of education, and job opportunities (Siniša, 2018). This issue, however, has become a global concern in low, middle, and high-income countries. Teenage mothers aged 10 to 19 years account for 11% of total births worldwide, with the majority (90-95%) occurring in low- and middle-income countries (Jaramillo-Mejía and Chernichovsky, 2019).

Early pregnancies frequently have serious health consequences for both mothers and babies. Pregnancies in girls aged 15 to 19 years are associated with a higher risk of mortality and morbidity than pregnancies in women aged 20 and older (Siniša, 2018; Utami *et al.*, 2020). Teenage mothers are also more likely to develop eclampsia than older women, puerperal endometritis, and systemic infections (World Health Organization, 2015). On the other hand, babies born to adolescent mothers have a higher risk of low birth weight, premature delivery, and severe neonatal health issues (World Health Organization, 2020b; Yoto *et al.*, 2020, 2022). Furthermore, 3.9 million unsafe abortions occur yearly, contributing to maternal mortality and morbidity (Darroch, Woog and Bankole, 2016).

This study indicates that the better the education level, the lower the likelihood of women in rural Indonesia experiencing teenage pregnancy. Several studies in various countries found the same results, and similar research information is reported in Colombia and Bangladesh (Drewry and Garcés-Palacio, 2020; Trommlerová, 2020). Better education for women and mothers is often associated with positive health outcomes for themselves and their children (Seran *et*

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al., 2020; Masruroh *et al.*, 2021; Ridwanah, Nugraheni and Laksono, 2022).

Better education is related to the individual's ability to understand the risks and consequences of each attitude and action taken (Laksono and Rachmawati, 2013; Wulandari and Laksono, 2020b). A better level of education is also related to women's independence, which can reduce teenage marriage due to matchmaking that often occurs in the eastern region (Grijns and Horii, 2018; Trommlerová, 2020). When teenagers are still of school age and have not received information about sex education, they engage in sexual behavior that leads to pregnancy. They experience a double burden, become pregnant and lose the opportunity to get a higher education (Nkosi and Pretorius, 2019; Nikmatur Rohmah *et al.*, 2020).
Women with higher education have more opportunities to develop themselves and get jobs to increase their welfare to escape poverty, which encourages them to experience teenage marriage (Ahorlu, Pfeiffer and Obrist, 2015; Kumar and Lakhtakia, 2021). Several previous studies have confirmed better education levels as a positive determinant of various performances in the health sector (Ipa *et al.*, 2020; Megatsari *et al.*, 2020). Otherwise, low levels of education were a barrier to various health performance to achieve better quality (Rohmah *et al.*, 2021; Laksono and Wulandari, 2022).

Furthermore, the results inform that employment is a risk factor for teenage pregnancy in rural Indonesia. The information on the results of this study is in line with previous studies, which also found the same information that employment status is a determinant of teenage pregnancy (N. Rohmah *et al.*, 2020). In developing countries, including Indonesia, earning a living is a duty and responsibility (Devy and Suheri, 2020; Andayani *et al.*, 2021). Meanwhile, when women work, it is often caused by low family income, and women are in a position to help their husbands meet household needs (Kidan Ayele *et al.*, 2018).

The analysis found that wealth status determines the incidence of teenage pregnancy in Indonesia. The same information is reported in several previous studies, especially in developing countries (Razu, 2018; Kohno *et al.*, 2019). In the Indonesian context, poverty encourages early marriage (Chirwa *et al.*, 2019; Rahayu and Wahyuni, 2020). This situation is also supported by the permissive local culture of early marriage (Laksono and Wulandari, 2019; Laksono *et al.*, 2020). However, legally, a regulation provides a minimum age limit of 19 years for women to marry (Rahman and Yuandari, 2020).

CONCLUSION

The study concludes that the education level relates to teenage pregnancy in rural Indonesia based on the research results. The better the education level, the lower the possibility of a woman in rural Indonesia experiencing teenage pregnancy.

The study results guide the government with specific policy targets. To control teenage pregnancy in rural Indonesia, the government can focus on girls in rural areas with a low education level.

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