

Teenage Pregnancies in Indonesia: Does Socio-Economic Matter?

Masruroh^{1*}, Joko Prasetyo², Agung Dwi Laksono³, Nikmatur Rohmah⁴

¹ University of Pesantren Tinggi Darul Ulum Jombang

² Universitas STRADA Indonesia, Kediri, Indonesia

³ National Research and Innovation Agency, Republic of Indonesia, Jakarta, Indonesia

⁴ Faculty of Health Science, Universitas Muhamadiyah Jember, Indonesia

*Corresponding author: masruroh@fik.unipdu.ac.id

ABSTRACT

Background: Teenage pregnancies is a crucial health problem in developing countries, including in Indonesia, which may cause various physical, psychological, emotional, and social problem including death for both mother and baby.

Purpose: This current research aimed to analyze the socio-economic relationship with the occurrence of teenage pregnancies in Indonesia.

Methods: This study uses secondary data for the 2017 IDHS with cross-sectional design. The dependent variable in this study is the prevalence of pregnant adolescents, while the independent variable is the socioeconomic status, the number of samples in this study was 3350 in women aged 20-24 years. The sampling technique uses simple random sampling. Analysis using binary logistic regression.

Results: The results showed that the poorer women had 0.804 times the probability of having teenage pregnancies (AOR 0.804; 95% CI 0.655-0.986). The women with middle socio-economic have 0.640 times more chance than the most impoverished women to have teenage pregnancies (AOR 0.640; 95% CI 0.514-0.797). The wealthier women have 0.804 times the probability of having teenage pregnancies compared to the poorest women (AOR 0.804; 95% CI 0.655-0.986). Moreover, the wealthiest women are 0.607 times more likely than the poorest women to have teenage pregnancies (AOR 0.607; 95% CI 0.447-0.823).

Conclusion: The study concluded that socio-economic proved to be related to the occurrence of teenage pregnancies in Indonesia. Also, there are 3 other variables which are also significant predictors of teenage pregnancy. The three variables are age, education level, and employment status.

Keywords: physical, socio-economic, teenage pregnancy

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BACKGROUND

Teenage pregnancy is a critical health problem in developing countries, including in Indonesia. Worldwide, one in five girls has given birth by the age of 18. In poorer countries, this figure is even higher for more than one in three girls (WHO, 2014). The impact of teenage pregnancy may be serious and cause various physical, psychological, and social problems, which may result in death for both the mother and baby (WHO, 2017; Ellis-sloan, 2019). Complications resulting from pregnancy and childbirth are the leading cause of death among girls aged 15-19 years in many low- and middle-income countries (Ampiah et al., 2019; Laksono, Wulandari, and Rukmini, 2021). Stillbirth and newborn mortality are 50% higher among infants born to teenage mothers than among those born to mothers aged 20-29 years (WHO, 2017). Babies of teenage mothers are also more likely to have low birth weight, causing a long-term detrimental impact on their health and development (Supadmi et al., 2020; Kusrini et al., 2021).

In Indonesia, there were 46,436 births per 1000 teenagers aged 15-19 years in 2019. In the same year, in Iraq, there were 72; in Kenya, there were 73; in Madagascar, there were 106; in Malawi, there were 132; in Nigeria, there were 104; in Tanzania, there were 115 births per 1000 girls aged 15-19 years. The birth rate in Indonesia was much higher than in other ASEAN countries. In 2019, in Singapore, there were only 3; in the Philippines, there were 55; in Pakistan, there were 38; in Myanmar, there were 28; in India, there were 11; in Malaysia, there were 14; and in Brunei Darussalam, there were 9 births per 1000 girls aged 15-19 years (United Nations Population Division World Population Prospects., 2020). Studies in Bangladesh reveal that around 90% of women have experienced teenage pregnancies, with the average age of 17.7 years at the time of being pregnant (Sarder, Alauddin, and Ahammed, 2020). Kassa et al., (2018) revealed that on average, the prevalence of teenage pregnancy in Africa was 18.8% and in Sub-Saharan Africa was 19.3%, in which the highest prevalence was in East Africa (21.5%) and the lowest was in North Africa (9.2%). Based on the data, teenage pregnancy in Indonesia is a reproductive health issue that requires serious attention.

Several factors are related to teenage pregnancy, such as living in a rural area, having been married, and being non-schooled. Besides, there are other factors related to teenage pregnancy such as parents with low educational background, lack of parental communication with teenagers about sexual and reproductive health issues, lower wealth index, unemployment, and no access to mass media (Kassa et al. al., 2018; Sarder, Alauddin and Ahammed, 2020). A study in Indonesia conducted by Rohmah et al., (2020) found that 22.27% of respondents had experienced pregnancy in their teenage years, and 63.6% of them were in rural areas (Rohmah et al., 2020). The various causes prove that teenage pregnancy is not only due to the teenager factor but also relates to other factors such as parents, working activities, communication, access to information, access to appropriate services for teenagers, and social pressure to get married. Teenage pregnancy has a negative impact on social development as well as on physical and reproductive health quality (Papri et al., 2016). Another risk related to teenage pregnancy is pregnancy disorders and baby health problems, such as the occurrence of preeclampsia and premature delivery (Kirchengast, 2016).

Socio-economic factors are also one of the factors for teenage pregnancy. They bring up various health problems and affect the teenagers' quality of life. Other socio-economic factors, such as low education and low income, have been associated with higher birth rates among teenagers. Interventions that address socioeconomic conditions can play a crucial role in overcoming the problem of teenage births (WHO, 2017). This current research aims to identify socio-economic factors as the risk factor for pregnancy among teenagers in Indonesia. The socio-economic disparity is one of the important factors that need to be considered in the

occurrence of teenage pregnancy. This is necessary to know to prevent and overcome the problems due to teenage pregnancy.

METHODS

This current research was conducted using secondary data from the 2017 Indonesian Demographic Data Survey (IDHS). Respondents of the 2017 IDHS had given written consent for their involvement in this research. The use of the 2017 IDHS data in this study had obtained permission from ICF International through its website (<https://dhsprogram.com>). Applying stratified cluster random sampling, a sample of 3350 female respondents aged 20-24 years who gave birth in the last five years were selected (National Population and Family Planning Board, Statistics Indonesia, 2017).

A cross-sectional approach was applied in this current research. The outcome variable is pregnancy in teenagers, while the exposure variable is socio-economic factors. Teenage pregnancy is a pregnancy experienced by teenagers aged 10-19 years (Rachakonda, Rawat, and Shiradkar, 2014). Socio-economic factors in this research refer to the wealth status of the respondents, which was stratified based on the quintile index of property ownership stated by the respondents. The categories applied were the poorest (quintile 1), poor (quintile 2), middle (quintile 3), rich (quintile 4), and the richest (quintile 5) (Wulandari et al., 2019).

This research also involved five other variables as the control variables. The five variables were age, place of residence, education, working status, and marital status. Statistical analysis in the final stage was performed using Binary Logistics Regression. All statistical analyzes were performed using SPSS IBM Statistics software version 22.

RESULTS

Table 1 presents the descriptive statistics of pregnancy among teenagers based on the respondents' socio-economic status. It can be seen that the socio-economic category for the poorest, poor, and middle class is dominated by those who experienced pregnancy during their teenage years. Meanwhile, the rich and the richest groups were dominated by those who did not experience pregnancy in their teens.

The housing criterion in the poorest and poorest groups is dominated by the respondents who live in rural areas. Meanwhile, the middle, rich, and richest groups are dominated by those who live in urban areas.

Based on the educational level, all socio-economic groups are at the secondary education level. All socioeconomic groups are also dominated by the respondents who do not work. The marital status of teenagers in all socio-economic groups is dominated by those who are married/live with a partner.

Table 2 displays the results of binary logistic regression. The table shows that regarding the probability of experiencing teenage pregnancy, poor respondents have 0.804 times of probability than the poorest ones (AOR 0.804; 95% CI 0.655-0.986); respondents with middle socio-economic status have 0.640 times of probability than the poorest ones (AOR 0.640; 95% CI 0.514-0.797); rich respondents have 0.523 times of probability than the poorest ones (AOR 0.523; 95% CI 0.408-0.671); and the richest respondents have 0.607 times of probability than the poorest ones (AOR 0.607; 95% CI 0.447-0.823).

Apart from socio-economic factors, three control variables are also associated with teenage pregnancy. The variables are age, education level, and working status. Table 2 informs that respondents with primary education have 0.299 times of probability than those without educational background (AOR 0.299; 95% CI 0.090-0.992); respondents with secondary education have 0.130 times of probability than non-schooled teenagers (AOR 0.130; 95% CI

0.039-0.428); and respondents with higher levels of education have 0.035 times of probability than those who were non-schooled (AOR 0.035; 95% CI 0.010-0.121).

Table 2 also shows that the working respondents have 1.456 times of probability than those who were not working (AOR 1.456; 95% CI 1.242-1.707). This information shows that the working/employment factor is the protective factor for a woman not to experience pregnancy in her teens.

Table 1. Descriptive Statistics of Respondents' Socio-Economy (n=3350) (SDKI, 2017)

Characteristic	Socio-economic factors										p-value
	The Poorest		Poor		Middle		Rich		The Richest		
	n	%	n	%	n	%	n	%	n	%	
Pregnant											***0,000
- No	354	30,7 %	309	39,3 %	304	46,7 %	261	54,6 %	160	56,5 %	
- Yes	798	69,3 %	477	60,7 %	347	53,3 %	217	45,4 %	123	43,5 %	
Place of living											***0,000
- Urban area	174	15,1 %	300	38,2 %	346	53,1 %	334	69,9 %	214	75,6 %	
- Rudal area	978	84,9 %	486	61,8 %	305	46,9 %	144	30,1 %	69	24,4 %	
Age (mean)	1152	(22,3)	786	(22,4)	651	(22,6)	478	(22,7)	283	(22,9)	***0,000
Level of education											***0,000
- Non-schooled	40	3,5 %	5	0,6 %	0	0,0 %	0	0,0 %	0	0,0 %	
- Primary	359	31,2 %	164	20,9 %	114	17,5 %	56	11,7 %	21	7,4 %	
- Secondar y	700	60,8 %	579	73,7 %	496	76,2 %	375	78,5 %	200	70,7 %	
- Higher	53	4,6 %	38	4,8 %	41	6,3 %	47	9,8 %	62	21,9 %	
Working status											*0,017
- Unemplo yed	768	66,7 %	545	69,3 %	420	64,5 %	308	64,4 %	166	58,7 %	
- Employe d	384	33,3 %	241	30,7 %	231	35,5 %	170	35,6 %	117	41,3 %	
Marital status											**0,002
- Single	12	1,0 %	1	0,1 %	2	0,3 %	0	0,0 %	0	0,0 %	
- Married/li ving with partner	1092	94,8 %	758	96,4 %	613	94,2 %	445	93,1 %	267	94,3 %	

-	Divorced	48	4,2 %	27	3,4 %	36	5,5 %	33	6,9 %	16	5,7 %	
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Note: *p < 0,05; **p < 0,01; ***p < 0,001.

Table 2. Results of Biner Logistic Regression on Teenage Pregnancy in Indonesia (n=3350).

Predictor	Teenage Pregnancy			
	p-value	AOR	95% CI	
			Lower Limit	Upper Limit
Socio-economy: the poorest	-	-	-	-
Socio-Economy: poor	*0,036	0,804	0,655	0,986
Socio-economy: middle	***0,000	0,640	0,514	0,797
Socio-economy: rich	***0,000	0,523	0,408	0,671
Socio-economy: the richest	**0,001	0,607	0,447	0,823
Age	***0,000	0,732	0,691	0,776
Place of residence: urban area	0,058	0,852	0,722	1,006
Place of residence: rural area	-	-	-	-
Education: non-schooled	-	-	-	-
Education: primary	*0,049	0,299	0,090	0,992
Education: secondary	**0,001	0,130	0,039	0,428
Education: higher	***0,000	0,035	0,010	0,121
Status of employment: unemployed	-	-	-	-
Status of employment: employed	***0,000	1,456	1,242	1,707
Marital status: single	0,824	1,134	0,375	3,431
Marital status: married/living with partner	0,498	1,493	0,469	4,756
Marital status: divorced	-	-	-	-

Information: * p < 0.05; ** p < 0.01; ***p < 0.001.

DISCUSSION

The research results found that respondents who experienced pregnancy during their teenage years were more common in poor - and middle-class families. This is in accordance with the results of studies conducted in several countries revealing that teenage pregnancy is most likely to occur in the middle and poor groups (Chijere et al., 2019; Kassa, Arowojolu and Odukogbe, 2019). The results of this current research are consistent with the studies conducted in South Asia (i.e., Nepal, Bangladesh, India, and Sri Lanka) and in Malawi, showing that low socio-economic status was a risk factor for the occurrence of teenage pregnancy (McHunu et al., 2012; Ahorlu, Pfeiffer and Obrist, 2015; Parsons et al., 2015; Yidana et al., 2015; Poudel et al., 2018; Chijere et al., 2019; Kassa, Arowojolu and Odukogbe, 2019).

Several previous studies in developing countries (e.g., South Sudan, Bangladesh, India) inform that poverty is a risk factor for early marriage. Early marriage is one of the major causes of teenage pregnancy (Madut, no date; Razu, 2018; Paul, 2019; Talukder et al., 2020). The same situation also occurs in Indonesia, especially in rural areas where there are still many practices of early marriage, which often occur in poor families. Early marriage is one way to get out or disconnect the family from poverty. Marrying a rich man is a shortcut to having a

better life for the girl's family (Muharry, Hakimi, and Wahyuni, 2018; Wulandari and Laksono, 2020).

This current research reveals that age is also informed to have a relationship with pregnancy in adolescents. The same results were also reported in Ethiopia. The study found that teenagers between the ages of 18-19 years have higher probability of giving birth, where they tend to start having sexual relations from the age of 18 (Kassa, Arowojolu and Odukogbe, 2019). Age is often correlated with physical maturity and thinking ability. Pregnancy in women under the age of 20 is less likely to develop physically and pregnant women may not be able to maintain their pregnancy and give birth safely. Pregnancy with hypertension and anemia, premature birth, and low birth weight are believed to be related to maternal age at pregnancy (Rohmah et al., 2020).

The results of the study found that the better the education level of the adolescent girls, the less likely the adolescent pregnancy to occur. Research in several countries (Nepal, Ethiopia, and Malawi) shows consistent results, that education is a predictor of pregnancy in adolescents (Jewkes et al., 2001; Yidana et al., 2015; Poudel et al., 2018; Chijere et al., 2019; Kassa, Arowojolu and Odukogbe, 2019).

Teenage pregnancy is associated with liberal attitudes towards premarital sexual relations, early marriage and pregnancy, and inadequate knowledge about sexual and reproductive health (Sychareun et al., 2018). Teenage pregnancy has a detrimental effect on a teenager's future. Being a student and being a mother at the same time is a tough experience for teenage mothers. Irregular school attendance and poor school performance during and after pregnancy often cause teenage girls to drop out of school. Most teenage pregnancies are negatively stigmatized in schools as well as in communities and have limited family support and health facilities (Nkosi and Pretorius, 2019). Teenagers have the potential to get information through education. If teenagers do not have the opportunity to go to school, they will lose the opportunity to get important information related to health. This knowledge can be used to anticipate the occurrence of teenage pregnancy.

Furthermore, the results of the study also found that work was a protective factor for a woman not to experience pregnancy in her teens. Studies in Nepal and Ethiopia show similar results. The results showed that women who did not work had a higher likelihood of experiencing pregnancy in their teens than working women (Poudel et al., 2018; Kassa, Arowojolu, and Odukogbe, 2019).

Teenage pregnancy is a global problem that occurs in high, middle, and low-income countries. But worldwide, teenage pregnancies are more likely to occur in marginalized communities, generally driven by poverty, lack of education, and job opportunities (WHO, 2017). Most teenage pregnancies reflect the situation of adolescent mothers who are socially disadvantaged and belong to the unemployed youth group (Kirchengast, 2016). Work is related to youth productivity both in the form of financial material and self-actualization. The employment status of adolescents is a dilemma. On the one hand, teenagers are still in the development stage to form their own identity, learn, and develop science, so they do not have the obligation to have a job. Adolescents who already have jobs are believed to work in the technology sector rather than professionals so that it will affect the level of income. Low income will be a cycle that has the potential to increase teenage pregnancies.

The study was conducted by utilizing secondary data from the 2017 IDHS. The accepted variables were limited to those given by ICF International as the data owner. This situation made the researcher unable to analyze other variables that had been found in previous studies related to teenage pregnancy. On the other hand, the quantitative approach makes the

study results superficial. The study could not reveal further the reasons for early marriage that also trigger pregnancy in adolescents (D.A. et al., 2020; Wulandari and Laksono, 2020).

CONCLUSION

This study concluded that socioeconomic factors are significantly associated with teenage pregnancy in Indonesia. Furthermore, three other variables were found to be significant predictors of teenage pregnancy: age, education level, and employment status.

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CONFLICTS OF INTEREST

The authors have no conflicts to report.

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