Determinants of Teenage Pregnancy in Indonesia

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Abstract

The phenomenon of teenage pregnancy in Indonesia has increased annually, but only a few studies that indicate its predictors. The present research aimed at anlyzing the determinants of teenage pregnancy in Indonesia. The study used secondary data obtained from the Indonesian Demography and Health Survey (IDHS) in 2017. The independent variables are as follows age, wealth status, education, occupation, and marital status. On the other hand, the dependent variable is teenage pregnancy. The data were analyzed using binary logisctic regression. It was found that age is a significant determinant of teenage pregnancy. The richest teenager has 0.61 higher possibility of getting pregnant than the poorest. A teenager with higher education is 0.03 times more possible to get pregnant than one that has not gone to school before. Moreover, a working teenager has the possibility to get pregnant higher than that of not working teenager by 1.47 times. The present study empirically proves that marital status is not a determinant of teenage pregancu. While the four other variables, such as age, lower wealth status, no education, and working have been proven as determinants of teenage pregnancy in Indonesia.

Keywords: *teenage, pregnancy, determinants, Indonesia*

Background

Teenage pregnancy happens when a young woman aged between 13-19 years old is having sexual intercourse which leads to pregnancy. The number of pregnant teenagers in Indonesia is 58.56%[(1)]. This evidence from other countries indicates high teenage pregnancy. Most women aged between 20-24 years old in Ethiopia (79,6%) were found pregnant. Every year, Indonesia also reports an increase to the number of pregnant teenagers. Such trend is also true in Malawi[(2)]. The teenage pregnancy in Sub-Sahara Africa shows low utilization of antenatal[(3)]. Moreover, female teenagers in the Midwest, US do not actively search for information related to teenage pregnancy[(4)]. Meanwhile, only a few of female teenagers in the Imo Territory of Nigeria are aware of emergency contraception[(5)]. A study conducted in South Africa found that women who are pregnant in their teenage period tend to receive negative stigma from their teachers, health service staff, and the community[(6)]. Moreover, teenage pregnancy is related to anemia[(7)], low birthweight, premature birth, and hypertension[(8)].

Teenagers in majority have not finished their high school, unmarried, not worked, and financially dependant on their parents. The emotional development of teenagers are not yet stable, making it hard for them to become a young mother. The present study aimed at analyzing age, residence, wealth status, education, occupation, and marital status.

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Materials and Method

The research design of this study is correlation, with cross-sectionl approach. The research employed secondary data obtained from the Indonesian Demographic and Health Survey in 2017. The research was conducted in 34 provines of Indonesia. Meanwhile, the analysis unit being researched ws women aged between 20-24 years old in Indonesia who has given birth in their < 20 years old. The sampling technique used was stratification and multistage random sampling, thereby obtained 3.350 samples. The 2017 IDHS obtained ethical approval from the National Institute for Health Research and Development of the Indonesian Ministry of Health. All respondents' identities are unknown from the data, and the respondents gave written consent for their involvement in the research. Permission to use the 2017 IDHS in this study was obtained from ICF International on January 21, 2020, through its website: https://dhsprogram.com/Data/terms-of-use.cfm.

The dependent variable of the study is teenage pregnancy, while independent variables which were analyzed as supposedly predictors, such as: age, type of place of residence, wealth status, education level, currently working, and marital status. Teenage pregnancy in this study was defined as pregnant women aged less than 20 years old. The measurement to obtain the data used two categories, such as yes and no. The age variable was analyzed using the year unit starting from 20 years old to 24 years old in the form of continous data. More, the definition of type of place of residence refers to the known categories defined by the Central Bureau of Statistics. The measurment was under two categories, such as urban and rural, and for the reference is urban. Wealth status is that of social wealth status of a person indicated by the wealth status. Wealth or wealth status is divided into five classes, such as poorer/lower, middle, richer/higher, richest, and poorest as reference. Education is the level of eduction of person that is classified into four categories, such as primary, secondary, higher education, and no education, and no education is the reference. Currently working is divided into two classes; working and not working, and not working is the reference. Marital status is categorized into three classifications, such as never never in union/no longer living together/separated, married/living with partner, dan Widowed/divorced is the reference. The data analysis followed two steps. First, the study conducted relationship test using chi square for categorical data and t-test for the continuous data. In the final step, the study used binary logistic regression.

Findings

Table 1. Descriptive Statistics of Teenage Pregnancy in Indonesia (n=3350)

CHARACTERISTICS	TEENAGE PREGNANCY		ALL	P
	No	Yes		
Age (mean)**	1388 (22.81%)	1962 (22.27%)	3350 (22.49%)	0.000
Type of Place of Recidence*				
Urban (ref.)	654 (47.1%)	714 (36.4%)	1368 (40.8%)	0.000
Rural	734 (52.9%)	1248 (63.6%)	1982 (59.2%)	
Wealth status*				
Poorest (ref.)	354 (25.5%)	798 (40.7%)	1152 (34.4%)	0.000
Poorer	309 (22.3%)	477 (24.3%)	786 (23.5%)	
Middle	304 (21.9%)	347 (17.7%)	651 (19.4%)	
Richer	261 (18.8%)	217 (11.1%)	478 (14.3%)	
Richest	160 (11.5%)	123 (6.3%)	283 (8.4%)	
Education*				
No education (ref.)	3 (0.2%)	42 (2.1%)	45 (1.3%)	0.000

Cont... **Table 1. Descriptive Statistics of Teenage Pregnancy in Indonesia (n=3350)**

Primary	173 (12.5%)	541 (27.6%)	714 (21.3%)	
Secondary	1030 (74.2%)	1320 (67.3%)	2350 (70.1%)	
Higher	182 (13.1%)	59 (3.0%)	241 (7.2%)	
Work status*				
No (ref.)	964 (69.5%)	1243 (63.4%)	2207 (65.9%)	0.000
Work	424 (30.5%)	719 (36.6%)	1143 (34.1%)	
Marital status*				
Never Union	6 (0.4%)	9 (0.5%)	15 (0.4%)	0.391
Married/living with partner	1324 (95.4%)	1851 (94.3%)	3175 (94.8%)	
Widowed/divorced (ref.)	58 (4.2%)	102 (5.2%)	160 (4.8%)	

Note: *Chi-Square test was used for dichotomous variables. **T-test for continuous variables

Table 1 depicts the teenage pregnancy phenomenon in Indonesia. The table describes as follows: 1) the average is a few years younger than those not pregnant teenagers; 2) mostly occurs among the poorest women; 3) occurs less in women with higher education; 4) mostly occurs among not working women; and 5) in majority the case occurs in married women or living with partner. The variables of age, type of place of residence, wealth status, education level, and working status have statistically significant relationship with teenage pregnancy in Indonesia. The marital status of is not proven related with teenage pregnancyy in Indonesia.

Table 2. Binary Logistic Regression for Teenage Pregnancy in Indonesia (n = 3352)

DETERMINANT	**TEENAGE PREGNANCY**			
	Sig.	**OR**	**Lower Bound**	**Upper Bound**
Age	0.000***	0.73	0.69	0.78
Type of Place of Recidence: Rural	0.062	1.17	0.99	1.38
Wealth status: Poorer	0.034*	0.80	0.65	0.98
Wealth status: Middle	0.000***	0.64	0.52	0.80
Wealth status: Richer	0.000***	0.53	0.41	0.67
Wealth status: Richest	0.001**	0.61	0.45	0.82
Education: Primary	0.050*	0.30	0.09	0.99
Education: Secondary	0.001**	0.13	0.04	0.43
Education: Higher	0.000***	0.04	0.01	0.12
Work status: work	0.000***	1.48	1.26	1.73

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

Table 2 describes the results of binary logistic regression test of teenage pregnancy in Indonesia. The references of the present study is no occurence of teenage pregnancy. The variable of age is one of the predictors of teenage pregnancy di Indonesia. This result is similar to a study conducted in Ethiopia which found that the chance of giving birth cases in teenagers occurs between the age of 18–19 years old, in which they tend to start having sexual intercourse since 18 years old[9]. Differently, the result of a study in Michigan indicted that age does not affect teenage pregnancy, but the age of the sexual partner does significantly[10]. Age is often correlated with physical maturity and thinking skill. Pregnancy in women younger than 20 years old tends to not develop physically and the pregnant women might not be capable of keeping their pregnancy and having safe birth. Pregnancy with hypertension and anemia, premature birth, and low birthweight are believed to be related with mother's age when pregnant.

Table 2 also describes the teenage pregnancy seen from the wealth status. Compared with the poorest teenagers, the poorer teenagers have 0.802 times chance higher (OR=0,80; 95% CI 0.67-0.98); Teenagers with middle wealth status have 0.642 times higher chance to get pregnant (OR=0.64; 95% CI 0.52-0.78); while those with the richer wealth status has higher chance by 0.53 times (OR=0.53; 95% CI 0.41-0.67); moreover, teenagers with richest wealth status have 0.61 times higher chance of conceiving pregnancy (OR=0.61; 95% CI 0.45-0.82). This result indicates that the poorest teenagers have the highest chance of conceiving pregnancy. The poorer they are, the higher the possibility to get pregnant in their teenage time. This result is in line with those found in Ghana and Malawi which stated that female teenagers who belong to the lowest wealth status have the highest possibility to have early marriage which will lead to teenage pregnancy[11],[2]. Parents' poverty is thought to be the underlying justification for their decision to marry their daughters to other people. The negative impact of poverty to teenage pregnancy is that they are more prone to unpleasant condition when being mothers[12]. If their daughters are married, a part of their responsibility will move to their daughters' husbands. The presence of a son in law within a poor family is also considered an extra help for earning the life. Such family fails to consider possible negative impacts of such early marriage and teenage pregnancy.

Moreover, Table 2 depicts the teenage pregnancy based on the educational level. If compared with teenagers with no education, those with primary education have 0.30 times chance higher (OR=0.30; 95% CI 0.09-0.99); Teenagers with secondary education show 0.13 times higher possibility (OR=0.13; 95% CI 0.04-0.43). Teenagers with higher education perform 0.04 higher chance of conceiving pregnancy (OR=0.04; 95% CI 0.01-0.12). following these results, it can be concluded that teenagers with no education have the biggest possibility of conceiving teenage pregnancy. This result confirms the findings of a study in Ghana which mentioned female teenagers who have never gone to school are more likely to get married in their teenage period than teenagers with certain educational level[11]. Similarly, the study in Brazil revealed that daughters of low income family usually do not finish/complete their primary education[13]. Lower length of study is also correlated with planned teenage pregnancy[14]. Education is a process of learning knowledge, skills, and habits. Through education, one develops his/her potentials in order to obtain certain objectives in cognitive and good attitude. The length of study required to finish the secondary school is 18 years. One that hs not completed his/her education at least until secondary level might have limited information and life skills. This may lead to the poor consideration on making the decision to get married and conceive pregnancy. The present study hs empirically proven that most of teenage pregnancy occurs in marriage. Teenage marriage is therefore assumed to be a way out for female teenagers who do not pursure higher education.

Finally, Table 2 informs about working teenagers who have 1.48 times higher possibility to get pregnant than not working teenagers (OR=1.48; 95% CI 1.26-1.73). this finding indicates that working women are more possible to get pregnant than those who are not working. However, the finding is different from a study in Northern Ethiopia and Brazil who declare that lower monthly income is a predictor to teenage pregnancy[15],[13]. Working women earn their own living. The autonomy in managing one's own expenses makes a woman more confident in deciding to conceive. They also have broader circles with other people, unlike the not working women. Getting pregnant is thought to be manifestation of self-actualization in a working teenager.

Conclusions

Based on the results of analysis, it can be briefly concluded that the four variables are empirically proven

as determinants of teenage pregnancy. The variables include age, wealth status, education level, and working status. These fndings could be used as a guidance for the policy makers to lower the number of teenage pregnancy in Indonesia.

Acknoledgments: The authors extend their gratitude to the ICF International, who has approved and allowed the use of 2017 IDHS data to be analyzed in this article. They also acknowlegde the assistance of the Educational Fund Management Institution of the Republic of Indonesia through the Home Excellent Scholarship for Indonesian Lecturers (BUDI DN).

Declaration Conflict of Interests:

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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