Research Article

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Desired Numbers of Children and Related Factors among Adolescents in Indonesia

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Abstract

The fertility rate (TFR) has decreased from around 5.6 births per woman in 1967 to around 2.4 births today. This study examined the desired number of children and related factors among adolescents in Indonesia in order to clarify expected fertility behavior. This study employed the data from a national survey of National Medium Term Development Plan 2015 (RPJMN 2015). This paper involved unmarried adolescences aged 15-24. The selected respondents were 37,538 persons. The multiple linear regression was applied to predict the model. The result showed that the majority of respondents were female, aged 15-16 years old, mostly senior high school level, had been out of school, unemployed, and lived in rural areas of Java, Bali and Sumatra. The average desired number of children was 2.46, with a 0.86 standard deviation. The multiple linear regression showed that sex, age, education level, working status, contraceptive knowledge, and living in rural and various regions significantly influenced the number of expected children. In conclusion, the majority of respondents expressed their desire to have only one or two children in the future. However, in consideration of the fact that what one desires does not always reflect reality, the risk of falling fertility is generally present. Policymakers on family planning need to be aware of this issue and should identify key issues in childbirth policy to support families in having a reasonable amount of children.

Keywords: Adolescence, Numbers of children, Reproductive Health

1. Introduction

The change of fertility rates can be seen all over the world. Indonesian fertility rates have dropped dramatically in the last five decades. In 1967, the government initiated a program to reduce fertility rates of Indonesians. The fertility rate (TFR) has decreased from around 5.6 births per woman in 1967 to about 2.4 today (United Nations, 2017). Reproductive planning generally aims at a reproductive rate of 2.1, but experience has shown worldwide that fertility decline rarely stops there. In the most extreme case, fertility is less than 1.5, making long-term survival of people and languages, cultures and religions more vulnerable (Pham et al., 2014).

The large population decline also caused serious economic problems. When the TFR fell below 2.1, it gradually increased the proportion of people aged 65 and over, and the proportion of people younger than working age decreased. These can put pressure on the government and the economy, the existing labor force, and the tax base, causing shrinkage while the cost of caring for the elderly is increasing (Habbema, Eijkemans, Leridon, & Te Velde, 2015).

Childbearing has been postponed for several reasons including the advanced age of mothers in marriages, tertiary education and to stabilize the economy before pregnancy (Mills, Rindfuss, McDonald, & te Velde, 2011). In addition, the preference of family size and women's social background has great relevance (Shiri T. & S., 2009). Socio-economic change has shifted the Indonesian society, making it difficult for the country's growth prospects to decline. Delayed fertility is the result of several factors including; economic, social and cultural factors that may be affected by the couple's willingness to give birth and the concept of desired family size (Mills et al., 2011). Education, knowledge of contraception and reproduction have an important role in fertility preferences (Rahman & Kabir, 2003). Evidence suggests that in many parts of the world, fundamental changes occur in individual attitudes toward sex, marriage, and childbirth (Ding & Hesketh, 2006).

One of the main issues of fertility and in assessing factors related to fertility behavior is the preference of the spouse - fertility and the desire to bear the child. In addition, the number of children required is a significant and serious problem in predicting the number of children spouses need (Günther & Harttgen, 2016; Habbema et al., 2015). There are very few studies on trends in teenage childbearing. This study aims to determine the number of children and related factors among adolescents in Indonesia to clarify expected behavior in the case of fertility.

2. The Study Hypotheses

This study aims to determine the expected number of children and related factors among adolescents in Indonesia. Based on the objective, ten null-hypotheses were tested, namely

- i. Gender factor will have no significant relationship with desired numbers of children among adolescents in Indonesia.
- ii. Age factor will have no significant relationship with desired numbers of children among adolescents in Indonesia.
- iii. Education factor level will have no significant relationship with desired numbers of children among adolescents in Indonesia.
- iv. Schooling status factor will have no significant relationship with desired numbers of children among adolescents in Indonesia.
- v. Working status factor will have no significant relationship with desired numbers of children among adolescents in Indonesia.
- vi. Attitude toward premarital factor will have no significant relationship with desired numbers of children among adolescents in Indonesia.
- vii. Contraceptive knowledge factor will have no significant relationship with desired numbers of children among adolescents in Indonesia.
- viii. Reproductive health knowledge factor will have no significant relationship with desired numbers of children among adolescents in Indonesia.

- ix. Area of residence factor will have no significant relationship with desired numbers of children among adolescents in Indonesia.
- x. Region factor will have no significant relationship with desired numbers of children among adolescents in Indonesia.

3. Methodology

This study was conducted by employing the data from the survey of National Medium Term Development Plan 2015 (RPJMN 2015) which has been conducted by the Family Planning National Board of Indonesia. The RPJMN 2015 aimed to obtain information about the success of the population development program, family planning and family development (BKKBN, 2016). The survey was conducted in 34 provinces of Indonesia. The samples were taken through two stages. The first stage uses the whole census blocks (CB) accompanied by information on the number of households/number of families in each CB results of the Population Census (PC) in 2010. Under the first phase of the sample, frame specified the number of CB in PPS (Probability Proportional to Size). Furthermore, the sample frame is the second phase of the whole family and all adolescents 15-24 years in each BS selected. Based on the second phase of the sample frame prescribed 25 families and 25 teenagers in a systematic random sampling in each CB selected (BPS, 2013). Respondents are families and young people aged 15-24 and unmarried. The data that was analyzed in this paper is only for the male and female teenage respondents. After the data was cleaned, there were 37,538 respondents.

The current study attempts to measure the number of children desired in future adolescents. The construction of this variable was based on a question in the National Medium Term Development Plan 2015 (RPJMN 2015): *How many children do you expect in the future?* This question is an open-ended model. While the independent variable was sex, age, education level, currently schooling, working status, the area of residence, region, and reproductive health related to HIV knowledge and contraception knowledge. Sex was comprised of 1 for male and 0 for female. The education attainment was coded 0 for "no education"; 1 for "Elementary level"; 2 for "Junior high level"; 3 for "Senior high level"; 4 for "Senior high level and 5 for "College or higher level.

Moreover, the current schooling referred to the respondent schooling status. It was coded as 1 is still in school and 0 as otherwise. The working status was derived from the respondent's answer as 1 if they work to gain money for living and 0 as otherwise. The occupation was coded as 0 for "do not work" and 1 for "work" (such as professional, technical, managers and administration, clerical, sales, service, agricultural worker, industrial worker, other). The residential area was divided into two categories: 1 as urban and 0 as rural. The region in Indonesia is comprised of 7 areas, namely Java and Bali, Kalimantan, Sumatra, Maluku, Sulawesi, Papua and Nusa Tenggara, which they were coded as 1 to 7, respectively. The attitude toward premarital sex was derived from the questions as 1) *Do you agree that woman can have sex before marriage?* 2) *Do you agree that man can have sex before marriage?* Either respondent answer agrees first or second question. We set up variable measured by 1 if the respondent does not agree on premarital sexual and 0 if otherwise. The contraception knowledge was considered as the recognition of the type of contraceptive method, either traditional method or modern and operative method. This variable ranged from the lowest score as 0 to the highest score as 11 points. While the reproductive health knowledge was derived from 8 questions which were covered menstruation period, pregnancy, marriage age and healthy age to delivery baby. The score of this this variable was range from 0 to 8.

The descriptive statistics were implemented to describe the variables by presenting the frequency distribution for sex, age, education, current school status, working status, the area of residence and regions. The bivariate statistics was employed to analyze between two variables, namely student t-test for (for relationship between gender and desired numbers of children, schooling status and desired numbers of children, working status and desired numbers of children, area of residence and desired numbers of children); analysis of variance (for analyze the

relationship between education and desired numbers of children, region and desired numbers of children) and Pearson's correlation (for analyze the correlation between age and desired numbers of children, attitude and desired numbers of children, contraceptive knowledge and desired numbers of children, and reproductive health knowledge and desired numbers of children).

The multivariate statistics was applied to investigate the effect of socio-demographic variables, attitude toward premarital sex, contraceptive knowledge, reproductive health knowledge, and the area of residence toward a desired number of children in the future. Regarding the dependent variable measurement as interval scale, the multiple linear regression was applied. Moreover, this method is suitable to predict the effects of the independent variables toward the interval scale dependent variable. The classical multiple linear regressions, such as normal distribution, multicollinearity, heteroscedasticity, autocorrelation, were satisfied the minimum cut off point (Zhou, L., H. Huang, and S. Ye, 2003). The multiple linear regression was performed by using statistical program application. Furthermore, the result is considered statistically significant if the p-value < 0.01.

4. Results

4.1 Descriptive result

The average number of children desired in the future by respondents was 2.46 with 0.86 standard deviations. Table 1 presents the characteristics of respondents. It was found that proportion of female was higher than male. Regarding the age, the proportion of adolescents aged 15 and 16 was higher, 14.82% and 13.33% respectively. The education level of respondents was mostly senior high (41.3%), while the lowest number is no education (2.8%) and college or higher education (4.2%). It was found that most of the respondents were out of school (56.1%). The working status showed that only 28.5% were working, while the rest had no job (71.5%). Regarding this situation, much of Indonesia adolescence did not have productive activity, they were neither in school nor had a job. Moreover, this study found that most of the respondents lived in a rural area (52.6%). If we look at regions, the majority of respondents lived in Sumatra (30.1%) and Java and Bali (30.4%). The number of respondents who lived in Maluku and Papua were very few.

Table 1: Characteristic of respondents

Variable	Number of children wanted in the future (%)						N (total)	Total
	1	2	3	4	5	>5		
Gender								
Male	51.2	49.8	43.6	40.8	30.9	36.2	17,696	47.1
Female	48.9	50.2	56.4	59.2	69.1	63.8	19,842	52.9
Age								
15	21.9	16.1	12.3	10.5	12.3	10.5	5,565	14.8
16	17.0	14.0	12.1	11.0	9.8	13.6	5,002	13.3
17	13.1	13.1	12.4	12.1	11.7	9.7	4,805	12.8
18	11.0	12.3	12.6	12.2	10.4	11.3	4,589	12.2
19	9.9	10.3	11.2	11.2	10.6	10.5	3,970	10.6
20	9.2	9.8	10.6	11.1	12.2	11.7	3,801	10.1
21	6.6	7.1	8.1	8.4	9.1	8.6	2,804	7.5
22	4.1	6.4	7.4	8.2	8.3	7.8	2,542	6.8
23	4.2	6.0	7.2	8.5	8.1	9.7	2,447	6.5
24	3.1	4.9	6.2	6.9	7.6	6.6	2,013	5.4
Education								
No education	4.0	2.4	2.8	3.7	5.4	7.8	1,034	2.8
Elementary	19.7	12.1	12.7	13.0	18.8	12.5	4,791	12.8
Junior high	42.6	40.7	36.2	34.6	30.9	33.1	14,627	39.0
Senior high	31.8	40.6	43.6	44.1	41.9	43.6	15,509	41.3
College or higher	2.0	4.2	4.7	4.6	3.1	3.1	1,577	4.2

Variable	Number of children wanted in the future (%)						N (total)	Total
	1	2	3	4	5	>5		
Current school status								
In school	43.2	41.8	46.8	49.0	53.9	49.0	16,470	43.9
Out of school	56.8	58.3	53.2	51.0	46.1	51.0	21,068	56.1
Working status								
Working	43.2	41.8	46.8	49.0	53.9	49.0	16,470	43.9
Don't work	56.8	58.3	53.2	51.0	46.1	51.0	21,068	56.1
Area								
Rural	50.1	51.3	52.5	58.3	63.3	61.1	19,736	52.6
Urban	49.9	48.7	47.5	41.7	36.7	38.9	17,802	47.4
Region								
Sumatra	20.5	27.1	35.4	40.3	36.3	33.1	11,292	30.1
Java and Bali	28.6	34.4	26.7	17.2	16.9	7.0	11,400	30.4
Nusa Tenggara	8.2	6.8	5.4	6.2	4.7	5.5	2,419	6.4
Kalimantan	10.5	9.6	9.0	8.4	9.5	13.2	3,530	9.4
Sulawesi	22.2	15.7	14.3	14.2	12.2	10.9	5,761	15.4
Maluku	6.7	4.3	4.7	6.2	8.3	13.2	1,798	4.8
Papua	3.3	2.2	4.5	7.5	12.3	17.1	1,338	3.6
Total	1,310	23,853	7,447	3,725	946	257	37,538	

4.2 Testing of Hypothesis

4.2.1 Gender factor will have no significant relationship with desired numbers of children among adolescents in Indonesia.

Table 2: Student-t test between gender and number of expected children among adolescence

Variable	N	Percentage	Mean	SD	t test	p-value	Remark
Male	17,696	47.1	2.39	0.80	-16.33	0.000	significant
Female	19,842	52.9	2.53	0.91			

In table 2, it was found that the p-value is less than significant level (α) 0.01. Accordingly, there is enough proof to reject the null hypothesis. It means that there is significantly different distribution number of expected children between male and female adolescence.

4.2.2 Age factor will have no significant relationship with desired numbers of children among adolescents in Indonesia.

Table 3: Correlation between age and expected number of children

Age	N	Percentage	Mean	r	p-value	Remark
15	5,565	14.8	2.33	0.095	0.000	significant
16	5,002	13.3	2.38			
17	4,805	12.8	2.43			
18	4,589	12.2	2.46			
19	3,970	10.6	2.49			
20	3,801	10.1	2.51			
21	2,804	7.5	2.53			
22	2,542	6.8	2.55			
23	2,447	6.5	2.59			
24	2,013	5.4	2.60			

r = coefficient correlation

Based on the Pearson correlation (table 3), it was found that the p-value is less than significant

level (α) 0.01, accordingly, there is enough proof to reject the null hypothesis. In another word, there is significantly correlation between the age and number of expected children.

4.2.3 Education factor level will have no significant relationship with desired numbers of children among adolescents in Indonesia.

Table 4: Analysis of variance (ANOVA) of number of expected children between male and female adolescence among education of respondents

Group	N	Percentage	Mean	F statistic	p-value	Remark
No education	1,034	2.8	2.64	30.070	0.000	significant
Elementary	4,791	12.8	2.48			
Junior high	14,627	39.0	2.40			
Senior high	15,509	41.3	2.49			
College or higher	1,577	4.2	2.49			

Based on the ANOVA, it was found that the p-value is less than significant level (α) 0.01, accordingly, there is enough proof to reject the null hypothesis. It means that there is significantly different distribution number of expected children among education attainment of respondents.

4.2.4 Schooling status factor will have no significant relationship with desired numbers of children among adolescents in Indonesia.

Table 5: Student-t test between schooling status and number of expected children among adolescence

Group	N	Percentage	Mean	Std. dev.	t test value	p-value	Remark
In school	16,470	43.9	2.52	0.90	11.35	0.000	significant
Out of school	21,068	56.1	2.42	0.83			

Based on the student-t test, it was found that the p-value is less than significant level (α) 0.01, accordingly, there is enough proof to reject the null hypothesis. It means that there is significantly different distribution number of expected children among schooling status of respondents.

4.2.5 Working status factor will have no significant relationship with desired numbers of children among adolescents in Indonesia.

Table 6: Student-t test between working status and number of expected children among adolescence

Group	N	Percentage	Mean	SD	t test	p-value	Remark
Working	16,470	43.9	2.43	0.85	-10.78	0.000	significant
Don't work	21,068	56.1	2.54	0.91			

Based on the student-t test, it was found that the p-value is less than significant level (α) 0.01, accordingly, there is enough proof to reject the null hypothesis. It means that there is significantly different distribution number of expected children among working status of respondents.

4.2.6 Attitude toward premarital factor will have no significant relationship with desired numbers of children among adolescents in Indonesia.

Table 7: Result of Student t-test between attitude toward premarital and number of expected children among adolescence

Variable	N	Percentage	Mean	SD	t test	p-value	Remark
Agree	695	1.85	2.53	0.98	2.25	0.025	significant
Disagree	36,843	98.15	2.46	0.86			

Based on the Student t-test, it was found that the p-value is less than significant level (α) 0.05, accordingly, there is enough proof to reject the null hypothesis. In another word, attitude toward premarital factor significantly related to desired numbers of children among adolescents in Indonesia.

4.2.7 Contraceptive knowledge factor will have no significant relationship with desired numbers of children among adolescents in Indonesia.

Table 8: Correlation between Contraceptive knowledge factor and expected number of children

Variables	Mean	r	p-value	Remark
Contraceptive knowledge	4.46	-0.0394	0.0000	significant
Expected number of children	2.46			

Based on the Pearson's correlation, it was found that the p-value is less than significant level (α) 0.01, accordingly, there is enough proof to reject the null hypothesis. In another word, the contraceptive knowledge factor significantly correlates to desired numbers of children among adolescents in Indonesia.

4.2.8 Reproductive health knowledge factor will have no significant relationship with desired numbers of children among adolescents in Indonesia.

Table 9: Correlation between reproductive health knowledge and expected number of children

Variables	Mean	r	p-value	Remark
Reproductive health knowledge	5.00	-0.0215	0.0000	significant
Expected number of children	2.46			

Based on the Pearson's correlation, it was found that the p-value is less than significant level (α) 0.01, accordingly, there is enough proof to reject the null hypothesis. In another word, the reproductive health knowledge factor significantly relates to desired numbers of children among adolescents in Indonesia.

4.2.9 Area of residence factor will have no significant relationship with desired numbers of children among adolescents in Indonesia.

Table 10: Student-t test between living area and number of expected children among adolescence

Group	N	Percentage	Mean	Std. dev.	t test value	p-value	Remark
Rural	19,736	52.6	2.51	0.90	10.08	0.000	significant
Urban	17,802	47.4	2.42	0.82			

Based on the student-t test, it was found that the p-value is less than significant level (α) 0.01, accordingly, there is enough proof to reject the null hypothesis. It means that there is significantly different distribution number of expected children among those who live in rural area and those who live in urban area.

4.2.10 Region factor will have no significant relationship with desired numbers of children among adolescents in Indonesia.

Table 11: ANOVA test between region and number of expected children among adolescence

Region	N	Percentage	Mean	F statistic	p-value	Remark
Sumatra	11,292	30.1	2.59	35.41	0.000	significant
Java and Bali	11,400	30.4	2.30			
Nusa Tenggara	2,419	6.4	2.38			
Kalimantan	3,530	9.4	2.44			
Sulawesi	5,761	15.4	2.39			
Maluku	1,798	4.8	2.60			
Papua	1,338	3.6	3.02			

Based on the ANOVA, it was found that the p-value is less than significant level (α) 0.01, accordingly, there is enough proof to reject the null hypothesis. It means that there is significantly correlation between numbers of expected children among regions.

Table 12: Regression analysis relationship between the criterion variable and the ten independent variables.

Independent variables	Coefficient	Std. Error	t	95% Conf.Interval
Sex (ref. = female)	0.122	0.011	11.240**	(0.100-0.143)
Age	0.031	0.003	10.910**	(0.025-0.037)
Education				
Elementary	-0.069	0.042	-1.650	(-0.152-0.013)
Junior High school	-0.143	0.041	-3.520**	(-0.222-0.063)
Senior High school	-0.143	0.041	-3.520**	(-0.223-0.064)
College & University	-0.201	0.048	-4.200**	(-0.295-0.107)
Schooling status (ref. = don't school)	0.011	0.014	0.770	(-0.017-0.038)
Working status (ref. = don't work)	0.041	0.015	2.780**	(0.012-0.069)
Attitude toward premarital behavior	0.053	0.039	1.360	(-0.024-0.129)
Contraceptive knowledge	-0.008	0.003	-3.360**	(-0.013-0.004)
Reproductive health knowledge	0.002	0.003	0.820	(-0.003-0.007)
Live in urban area (ref. = rural)	-0.038	0.011	-3.380**	(-0.059-0.016)
Region (Ref. = Sumatra)				
Java-Bali	-0.290	0.014	-21.200**	(-0.317-0.263)
Nusa Tenggara	-0.220	0.021	-10.340**	(-0.262-0.179)
Kalimantan	-0.168	0.019	-8.710**	(-0.206-0.130)
Sulawesi	-0.202	0.017	-12.190**	(-0.234-0.169)
Maluku	0.101	0.033	3.070**	(0.036-0.165)
Papua	0.385	0.042	9.150**	(0.302-0.467)
constant	2.074	0.074	28.070**	(1.929-2.219)

** = significant at 0.01

F(18, 37519) = 77.4; R-squared = 0.054; Probability > F = 0.000; Root MSE = 0.859

The regression model yielded that the independent variables could explain the variance of a number of children wanted as 5.38 % (R-squared = 0.0538). Furthermore, the results revealed that sex significantly influenced the number of children (Coefficient = 0.1215, 95% CI: 0.1003–0.1427) and also age significantly determined number of children (Coefficient = 0.1215, 95% CI: 0.1003–0.1427). The education level significantly influenced the number of children negatively. The regression model yielded that the higher education level respondents wanted less number of children. For example, the coefficient of elementary school level was -0.0692, while the college and university were as high as -0.2011. The working status of adolescents was positively correlated to the number of children wanted, in other words, those who currently have a job were more likely to have more children compared to those who were unemployed. The contraceptive knowledge was negatively correlated to the number of children wanted in the future, in other words, if the knowledge was high, the number of children was lower. Living in an urban area was also negatively correlated when associated with the number of children, those who live in an urban area are more likely to have fewer children compared to those who live in a rural area. On the contrary, the attitude toward premarital sex and reproductive knowledge did not significantly influence the number of desired children.

In addition, the region of residence also significantly influenced the number of children expected. Those who live in Java and Bali, Nusa Tenggara, Kalimantan and Sulawesi are more likely to have fewer children compared to those who lived in Sumatra. On the contrary, those who live in Maluku and Papua are more likely to have a number of children compared to those who lived in Sumatra.

5. Discussion and Conclusion

In this study, we present the views of Indonesian adolescents and explore the relevant factors. Approximately 80% of all male and female participants commented that the number of children required for a family is 2 or 1. Some sociologists and policymakers strongly believe that most reproductive rates are influenced by family needs and preferences, particularly by women, about the number of children required (Ding & Hesketh, 2006). Similarly, the study comparing wanted fertility and number of children born in a panel of 200 country-years indicated the high association (Günther & Harttgen, 2016). The desired number of children may be affected by the context in which each person grows (Berrington & Pattaro, 2014), although, some studies have not confirmed this problem. The actual number of children for a family may be different from the number of children expected by adolescents (Joshua Goldstein, Lutz, & Testa, 2003).

As presented in Table 2, it was found that sex significantly influences the desired numbers of children among adolescence in Indonesia (coefficient = 0.122; CI = (0.100-0.143); also age significantly influences the desired numbers of children among adolescence in Indonesia (coefficient = 0.031; CI = (0.025-0.037); the education attainment also negatively influences the the desired numbers of children among adolescence in Indonesia. The statistical result showed that the higher education the less number of children expected. Working status (ref. = don't work) has positively significant influence to the desired number of children (coefficient = 0.041; CI = (0.012-0.069); Contraceptive-knowledge negatively influences the desired numbers of children among adolescence in Indonesia (coefficient = -0.008; CI = (-0.013-0.004); Live in urban area (ref. = rural) negatively influences the desired numbers of children among adolescence in Indonesia (coefficient = -0.038; CI = (-0.059-0.016); Furthermore, the Region (reference = Sumatra) also has significant influence to desired numbers of children among adolescence in Indonesia. Those who lived in Java-Bali, Nusa Tenggara, Kalimantan and Sulawesi were less likely to expected higher number of children compare to those who live in Sumatra. On the contrary those who live in Maluku and Papua were more likely to have more children then who live in Sumatra. However, there were some variables that did not significantly influence the desire number of children, such as schooling status, premarital behavior, reproductive health knowledge.

The results found that age, education level, schooling status and working status were significant influences to the number of desired children. According to some studies, relationships between married age, education, income and financial situation with childbearing behavior (Pham et al., 2014). Similarly, Mills M, et al., (2011) stated the reason may be due to factors such as economic, social and financial problems of higher education, employment and ambition of earning higher (Mills et al., 2011). In fact, higher education motivation and higher income will reduce the childbirth motivation (Kravdal, 2002).

The results of the study on the relationship between the age of a married couple and their number of children are in line with that of another Iranian study (Shiri T. & S., 2009). The results of the study to assess desired number of children in this research show that work status was related to lack of fertility (Asadi-Aliabadi, Fakori, Siamian, Dehghani, & Rostami maskopaii, 2017). Although some researchers argued that revenues may not fully describe the lovers of childbirth, so it is important to evaluate the types of social support that people receive. (Shiri T. & S., 2009). One cause associated with higher education may result in lesser births, namely, the balance between education and the role of the mother. In addition, more educated women may have better careers than other women. In addition, more income and power may provide additional control over childbirth for educated women (Amuedo-Dorantes & Kimmel, 2005).

Community policymakers must be aware of this issue and should identify key issues in childbirth policies to support families. Some studies have shown that policies that are designed and implemented to address conflicts between work and education play an important role in enhancing the wishes of spouses in childbirth and helping couples respond with the decision to postpone the birth of the first child (Mills et al., 2011). In this research, knowledge of the constraints affects the reduction of the number of children. Although the availability of contraceptive methods is one of the factors affecting reproductive behavior, the most important factor in the success of changing the

fertility behavior is greater understanding in order to reduce conflicts between roles of parent's education and employment (Mills et al., 2011).

In conclusion, Most of the Indonesian teenagers expressed their desire to have only one or two children in the future. Considering the fact that one's desires are not always reality, the risk of fertility rates generally decrease. There should be an appropriate policy to increase the number of children.

6. Limitation of the Study

This study covered adolescents aged 15-24, particularly for those aged under 17 who may not think about the number of expected children in the future because they are still at schooling age. Consequently, their answer for the number of desired children might not represent what they really expect.

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References

- Amuedo-Dorantes, C., & Kimmel, J. (2005). The Motherhood Wage Gap for Women in the United States: The Importance of College and Fertility Delay. *Review of Economics of the Household*, 3(1), 17–48. Retrieved from <https://econpapers.repec.org/RePEc:kap:reveho:v:3:y:2005:i:1:p:17-48>
- Asadi-Aliabadi, M., Fakori, M., Siamian, H., Dehghani, L., & Rostami maskopaii, F. (2017). Socio-Cultural and Economic Factors Influencing Fertility Behavior in Staffs Working in Health Centers in Juybar, Iran: A Cross-Sectional Study. *Iranian Journal Of Health Sciences*, 5(4). <https://doi.org/10.29252/jhs.5.4.62>
- Berrington, A., & Pattaro, S. (2014). Educational differences in fertility desires, intentions and behaviour: A life course perspective. *Advances in Life Course Research*, 21, 10–27. <https://doi.org/https://doi.org/10.1016/j.alcr.2013.12.003>
- BKKBN. (2016). *Performance Measurement Survey of National Term Development Plan (RPJMN) Program Population and Family Planning – 2015*. Jakarta.
- BPS. (2013). *Indonesia Demographic and Health Survey 2012, 2013*, : Jakarta, Indonesia.
- Ding, Q. J., & Hesketh, T. (2006). Family size, fertility preferences, and sex ratio in China in the era of the one-child family policy: results from national family planning and reproductive health survey. *BMJ*, 333(7564), 371–373.
- Günther, I., & Harttgen, K. (2016). Desired Fertility and Number of Children Born Across Time and Space. *Demography*, 53(1), 55–83. <https://doi.org/10.1007/s13524-015-0451-9>
- Habbema, J. D. F., Eijkemans, M. J. C., Leridon, H., & Te Velde, E. R. (2015). Realizing a desired family size: When should couples start? *Human Reproduction*, 30(9), 2215–2221. <https://doi.org/10.1093/humrep/dev148>
- Joshua Goldstein, Lutz, W., & Testa, M. R. (2003). The emergence of Sub-Replacement Family Size Ideals in Europe. *Population Research and Policy Review*, 22(5–6), 479–496.
- Kravdal, Ø. (2002). Education and fertility in sub-Saharan Africa: Individual and community effects. *Demography*, 39(2), 233–250. <https://doi.org/10.1353/dem.2002.0017>
- Mills, M., Rindfuss, R. R., McDonald, P., & te Velde, E. (2011). Why do people postpone parenthood? Reasons and social policy incentives. *Human Reproduction Update*, 17(6), 848–860. <https://doi.org/10.1093/humupd/dmr026>
- Pham, D. T., Stephens, E. H., Antonoff, M. B., Colson, Y. L., Dildy, G. A., Gaur, P., ... Blackmon, S. H. (2014). Birth trends and factors affecting childbearing among thoracic surgeons. *Annals of Thoracic Surgery*, 98(3), 890–895. <https://doi.org/10.1016/j.athoracsur.2014.05.041>
- Rahman, M. M., & Kabir, M. (2003). Knowledge of adolescents on contraception and dynamics of its use. *Health and Population Perspectives and Issues*, 28(3), 164–177.
- Shiri T., & S., B. (2009). Economic factors affecting the fertility of women 15-49 years old population employed in the school district 22 of Tehran. *Journal of Social Sciences*, 3(3), 93–107.
- Zhou, L., H. Huang, and S. Ye, S. (2003). ex and reproductive health education to university students. *Reproduction and Contraception*, 340–345.