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## LIVING ARRANGEMENT AND HOMEOWNERSHIP IMPACTS ON FERTILITY INTENTION TO ACHIEVE THE SUSTAINABLE DEVELOPMENT GOALS

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### Abstract

A reduction in fertility is among the sustainable development goal indicators in Indonesia. This study analyzed the relationship between living arrangements and home ownership with fertility intention in Indonesia. The inferential analysis used in this study is ordinal logistic regression. The data used in this study came from the National Socioeconomic Survey 2017 results. The unit analysis in this study was women aged 15-49 years who were married and not contracepting. The dependent variable in this study was the fertility intention. The independent variables, namely living arrangement and home ownership, and the control variables, namely women's age, women's education, women's working status, parity, husband's education, husband's working status, living area, household income, grandparent's age, grandparent's health status, grandparent's working status, and grandparent's gender. This study was divided into three models. In the first model, women who live with their parents have 1.17 times higher tendency to have high fertility intentions than those with low fertility intentions or do not have fertility intentions than women who do not live with their parents. In the third model, women who live with their parents have 1.11 times higher tendency to have high fertility intentions than those who have low fertility intentions or do not have fertility intentions compared to women who do not live with their parents. The study results show that women who lived with their parents had higher odds of having high fertility intention. Women who lived in homes that were not their own tended to have high fertility intentions. From these results, it is hoped that there will be programs from the government for the elderly family so that the presence of parents or inlaws in the household can improve the quality of children more than the number of children.

**Keywords:** Fertility intention; Living arrangement; Homeownership; Ordered logistics regression; Indonesia.

### 1. Introduction

Fertility intention is essential to study in demographic analysis because it is helpful for population analysis, assessing the extent to which contraceptive needs are not being met in the population, and helping to understand how married couples determine their fertility level (Jones, 2017). The world's population's future size depends on the rate at which fertility declines in countries with high fertility rates (Kaptijn et al., 2010). However, countries with high fertility rates are experiencing slow fertility declines. The slowing trend of fertility

decline in countries with high fertility rates has important implications for future world population trends (Bongaarts, 2008). A large population will hamper economic growth.

In Indonesia, the trend of wanting children immediately in two years has increased from 2002 to 2017. In 2002 as many as 13 percent of women wanted children immediately, while in 2017, 16.7 percent wanted children immediately. In 2017, 64.4 percent of the births of fourth or more children were births that were wanted soon or now. This score shows that, based on the desire to have children, women who already have more than three children may still have the desire to have more children. Research in Indonesia shows that fertility intentions can predict unwanted pregnancies (Supriyatna et al., 2018). In 2008, as many as 41 percent of pregnancies worldwide were unwanted. While in Southeast Asia in 2012, 44 percent of the total pregnancies were unwanted (Sedgh et al., 2014).

One of the goals of Sustainable Development Goals (SDGs) in Indonesia is to ensure a healthy life and improve the welfare of the entire population of all ages (Bappenas, 2019b). Various programs on family welfare include reducing the total fertility rate as one of the SDG indicators (Bappenas, 2019a). The population in Indonesia is projected to continue to grow. Hard work is needed to reduce the total birth rate (TFR) to 2.1 per woman in 2024 following the 2020-2024 National Medium-Term Development Plan target (Bappenas, 2019b). National Medium-Term Development Plan is a development planning document prepared for five years and elaborates the vision, mission, and programs of the National Long-Term Development Plan for 20 years.

The existence of driving and inhibiting factors in determining the desire to have children can influence the change in fertility intentions into fertility behavior. These factors tend to come from external sources, for example, the influence of family and friends (Kuhnt & Trappe, 2016). Socioeconomic situations that change during life can also hinder realizing childbearing plans (Kuhnt & Trappe, 2016). High housing prices and increasing needs are pushing women into the job market. With the help of grandparents in caring for their grandchildren, it can lighten the burden of mothers in childcare so that mothers can enter the job market (Becker, 1965). Children cared for by their parents or siblings provide better quality (Blau, 1999). Therefore, childcare is one of the considerations for working women in determining their fertility decisions. Grandparents' care for their grandchildren is extensive, so some parents entrust their children to their grandparents (Spieker & Bensley, 1994).

Homeownership and having children are two types of household consumption that compete with each other. High housing prices and the increasing cost of living can encourage women to enter the workforce and delay having children (Mulder & Wagner, 2001). The more difficult it is to own a home affects reproductive decisions. Previous research has often linked homeownership with home marketing, and it is still rare to associate it with population behavior (Vignoli et al., 2013). In addition, most studies have focused on the role of formal childcare, such as daycare; still, few have examined the role of kin support in childcare (Kaptijn et al., 2010). It is essential to look at the role of grandparents and their characteristics in raising grandchildren concerning female fertility intentions (Aassve et al., 2012). For this reason, the author wants to analyze the relationship between homeownership and its feasibility conditions. Then, see the role of the presence of grandparents in terms of childcare related to fertility intentions in Indonesia.

Based on the Theory of Planned Behavior, the desire to have children or not to have children is based on three considerations: behavioral beliefs, normative beliefs, and control beliefs (Ajzen, 2012). Behavioral beliefs refer to the belief that having children has good and bad consequences. The belief in the behavior carried out leads to positive and negative attitudes toward having children. The second consideration is normative beliefs or normative

belief in the existence of social support in having children. This belief in the existence of social support can form subjective norms in having children. The third consideration is control beliefs or belief in control factors, namely considerations related to motivating and inhibiting factors affecting a person's ability to have children. The belief is that motivating and inhibiting factors from having children can shape perceived control or deal with obstacles. Thus, fertility intentions result from the expectation of having or not having children, which is, in fact, per a person's ability to achieve their goals, as far as the control they exercise to have children (Aizen & Klobas, 2013)

Based on the theory, realizing fertility intentions is characterized by not using contraception and having sexual intercourse (Billari et al., 2009). Several individuals, demographic and social characteristics can be background factors that influence beliefs and intentions to have children (Aizen & Klobas, 2013). These characteristics can also be controlled variables that mediate changes in intentions to behavior (Aizen & Klobas, 2013). Homeownership and having children are two types of household consumption that compete with each other. High housing prices and the increasing cost of living can encourage women to enter the workforce and delay having children (Mulder & Wagner, 2001). In addition, most studies have focused on the role of formal childcare, such as daycare; still, few have examined the role of kin support in childcare (Kaptijn et al., 2010). It is essential to examine the role of grandparents and their characteristics in raising grandchildren concerning female fertility intentions (Aassve et al., 2012). For this reason, looking at the relationship between homeownership and its feasibility conditions is essential. Then, see the role of the presence of grandparents in terms of childcare related to fertility intentions in Indonesia.

## 2. Methods

This research uses cross-sections from the March 2017 National Socioeconomic Survey (Susenas). The March 2017 Susenas dataset contained 297,267 household samples and 1,132,749 individual samples. The unit of analysis in this study is a married woman, household head or wife, aged 15-49 years, and not using contraception (KB). The unit of analysis in this study was 69,797 samples. In this study, two methods of analysis were used, namely descriptive and inferential analysis. The inferential analysis used in this study is ordinal logistic regression because the dependent variable used in this study is more than two categories and has a meaningful order. One category has a higher level than the other categories. In contrast with multinomial regression, the dependent variable in ordinal regression is on an ordinal scale (Scott et al., 1991)—a general model of Ordinal Logistic Regression as seen in Formula 1.

$$y^* = \log \frac{P(Y \leq k | X)}{P(Y > k | X)} = \text{logit } P(Y \leq | X) = \alpha_k + \beta_1 X_1 + \dots + \beta_p X_p + \varepsilon \quad (1)$$

This model used an ordinal response variable with  $k$  categories ( $y^*$ ). Each category  $y^*$  is separated by threshold parameters, namely the intercept variable ( $\alpha_k$ ). So ordinal logistic regression does not only estimate the coefficient of the independent variable ( $\beta$ ) but also the threshold parameters ( $\alpha_k$ ). The estimated yield parameters cannot be interpreted directly in the ordinal logistic regression model. The parameters only show the direction of the independent variable's influence on the dependent variable. So, the *odds ratio* is needed to interpret the results. In the ordinal logit model, it is assumed that the slope of the independent variable is the same, but the intercept is different for all categories of the dependent variable.

In contrast to the multinomial logit model, where the intercept and slope are different for each category of the dependent variable.

The dependent variable in this study is fertility intention, divided into three, namely high intention, low intention, and no intention. High intention if the samples want to have children less than two years. Low intention if the samples want to have children of more than equal to two years. Do not have the intention if the samples do not want to have children/children again. The primary independent variable is living arrangements and homeownership. Living arrangements are divided into two categories: living with parents or inlaws and not living with parents or inlaws. The variable of homeownership is divided into three categories: living in their own and decent house, living in their own and not the decent house, and living in a house that is not their own.

### 3. Results and Discussions

Based on the characteristics of the sample, the results showed that as many as 50.2 percent of women stated that they did not intend to have more children. Percentage of women by variable living arrangements, as many as 92.2 percent of women do not live with their parents or inlaws. Homeownership is also suspected of affecting the desire to have children. Table 1 shows the characteristics of women based on their fertility intentions. The percentage of women with high intentions is higher in women who live with their parents or inlaws, 38.8 percent. Women with high intentions are higher for women who do not have their own homes, namely 40.9 percent. Fertility intentions according to other independent variables are shown in Table 1.

Table 1. Percentage distribution of fertility intention by background characteristics: Indonesia's Susenas 2017

Variable	Fertility Intention			Total
	No Intention	Low Intention	High Intention	
	%	%	%	
(1)	(2)	(3)	(4)	(5)
<i>Living arrangement</i>				
Does not live with parents	50.8	16.1	33.1	100.0
Lives with parents	43.9	17.3	38.8	100.0
<i>Homeownership</i>				
Not own	38.9	20.2	40.9	100.0
One's own and not decent	53.1	15.9	31	100.0
One's own and decent	54.8	13.1	32.2	100.0
<i>Woman's age</i>				
<25 years old	8.9	30.8	60.3	100.0
25-29 years old	14.6	30.2	55.2	100.0
30-34 years old	25.7	25.6	48.7	100.0
≥35 years old	68.1	9.4	22.5	100.0
<i>Women's education</i>				
Low	56.8	14.4	28.8	100.0
Medium	46.3	17.2	36.5	100.0
High	40.3	19.7	40	100.0
<i>Women's working status</i>				
Does not work	48.4	18.4	33.2	100.0
Working in the informal sector	44.9	15.9	39.2	100.0
Working in the formal sector	54.7	13.9	31.4	100.0
<i>Parity</i>				
Have no children	10	6.5	83.5	100.0

Variable	Fertility Intention			Total
	No Intention	Low Intention	High Intention	
	%	%	%	
(1)	(2)	(3)	(4)	(5)
Have 1 child	20.7	21.6	57.7	100.0
Have 2 child	54.8	20.5	24.7	100.0
Have $\geq 3$ child	76.7	12.6	10.7	100.0
Partner's education				
Low	55.1	14.8	30.1	100.0
Medium	46.9	17.1	36	100.0
High	46.5	17.7	35.8	100.0
Partner's working status				
Does not work	72.4	10	17.6	100.0
Working in the informal sector	47.2	16.8	36	100.0
Working in the formal sector	51.4	16.1	32.5	100.0
Residential area				
Urban	53.1	14.5	32.4	100.0
Rural	48	17.5	34.5	100.0
Household economy				
40% Low	57.1	18	24.9	100.0
40% Medium	49.4	16.3	34.3	100.0
20% High	43.3	13.8	42.9	100.0
Parent's age				
$\geq 60$ years old	49.6	14.9	35.5	100.0
$< 60$ years old	21.6	26.4	52	100.0
Parent's health condition				
Have health complaints that interfere with activities	41.4	15.9	42.7	100.0
Have health complaints that do not interfere with activities	46.6	15.4	38	100.0
No health complaints	44.1	18.3	37.6	100.0
Parent's working status				
Does not work	46.8	15.8	37.4	100.0
Working in the informal sector	33.4	22.8	43.8	100.0
Working in the formal sector	24.4	26	49.6	100.0
Parent's gender				
Man	46.9	17.1	36	100.0
Woman	43.4	17.3	39.3	100.0
Total	50.2	16.2	33.6	100.0

This research is divided into three models. The first model is used to analyze the general relationship between independent variables with fertility intention. The second model wants to analyze the relationship between independent variables, especially the characteristics of parents/inlaws on fertility intentions in women who live with their parents. The third model wants to analyze the effect of independent variables on fertility intentions in women who already have at least three children. The results of the inferential analysis in this study are shown in Table 2.

Table 2. Parameter estimates ( $\hat{\beta}$ ) and odds ratio of ordinal logistics regression of fertility intention: indonesia susenas 2017

Variable	Category	Model I (n=69,797)		Model II (n=5,463)		Model III (n=26,649)	
		$\hat{\beta}$	Odds Ratio	$\hat{\beta}$	Odds Ratio	$\hat{\beta}$	Odds Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Living arrangement	Does not live with parents						
	Lives with parents	0.1629***	1.177			0.1109*	1.1173
Homeownership	Not own						
	One's own and not decent	-0.0431*	0.9578	-0.0264	0.9740	-0.0611	0.9407
	One's own and decent	-0.079***	0.9240	0.0173	1.0175	-0.2098***	0.8106
Woman's age	<25 years old						
	25-29 years old	0.3119***	1.3661	0.3144**	1.3695	-0.1405	0.8689
	30-34 years old	0.4017***	1.4944	0.3479***	1.4162	-0.3716**	0.6895
	≥35 years old	-0.9532***	0.3855	-0.6713***	0.5110	-1.8702***	0.1541
Women's education	Low						
	Medium	0.1145***	1.1214	-0.0099	0.9901	0.0335	1.0341
	High	0.2091***	1.2326	-0.0931	0.9111	0.4074***	1.5030
Women's working status	Does not work						
	Working in the informal sector	0.0962***	1.1011	0.0393	1.0400	-0.0827	0.9206
	Working in the formal sector	0.0475**	1.0486	0.0595	1.0614	0.0089	1.0090
Parity	Have no children						
	Have one child	-1.4042***	0.2456	-1.4537***	0.2337		
	Have two child	-2.7268***	0.0654	-2.8846***	0.0559		
	Have ≥ three child	-3.4948***	0.0304	-3.7515***	0.0235		
Partner's education	Low						
	Medium	0.0673***	1.0697	0.0741	1.0769	0.0815**	1.0849
	High	0.0519	1.0533	0.4408***	1.5539	0.1492**	1.1609
Partner's working status	Does not work						
	Working in the informal sector	0.7882***	2.1994	0.4903**	1.6329	0.7686***	2.1568



Variable	Category	Model I (n=69,797)		Model II (n=5,463)		Model III (n=26,649)	
		$\hat{\beta}$	Odds Ratio	$\hat{\beta}$	Odds Ratio	$\hat{\beta}$	Odds Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Working in the formal sector	0.7989***	2.2233	0.6151***	1.8498	0.5974***	2.2809
Residential area	Urban						
	Rural	0.4099***	1.5067	0.5238***	1.6884	0.5974***	1.8175
Household economy	40% Low						
	40% Medium	0.0439**	1.0449	0.0238	1.0241	-0.0353	0.9652
	20% High	0.0369	1.0376	0.0708	1.0733	-0.0483	0.9527
Parent's age	≥ 60 years old						
	< 60 years old			0.1416*	1.1521		
Parent's health condition	Have health complaints that interfere with activities						
	Have health complaints that do not interfere with activities			-0.1138	0.8924		
	No health complaints			-0.0975	0.9071		
Parent's working status	Does not work						
	Working in the informal sector			0.0538	1.0553		
	Working in the formal sector			0.1810	1.1985		
Parent's gender	Man						
	Woman			-0.0417	0.9591		
Threshold 1		-1.8085	-1.8085	-2.2321	-2.2321	0.8545	0.8545
Threshold 2		-0.7882	-0.7882	-1.1830	-1.1830	1.8878	1.8878



The first model shows that the variable living arrangements and homeownership are significantly related to fertility intention. Women who live with their parents/inlaws have a 1.17 times higher tendency to have high fertility intentions than those with low fertility intentions or do not have fertility intentions than women who do not live with their parents or inlaws. This result aligns with the theory, which states that grandparents' support for raising grandchildren will increase the desire to have more children (Kaptijn et al., 2010). The existence of parents or inlaws who are willing to provide child care as a form of transfer to the generations below them will increase the intention to have children (Aassve et al., 2012). Women who live with parents or inlaws who provide childcare support are more likely to have second children than women who do not live with parents or inlaws who do not provide childcare support (Yoon, 2017).

The expectation of grandparental childcare provision is essential in an adult child's decision to have a child (Rutigliano, 2020). Grandparental support positively impacts women's fertility intention to have another child across all the specifications (Rutigliano & Lozano, 2022). This finding is possible because living with parents or inlaws will make it easier for the household to get transfers from parents in childcare assistance, economic assistance, and emotional support (Hank & Buber, 2009). Meanwhile, the decent homeownership variable shows that women who live in their own house, decent or not, have a low desire to have children in two years compared to women who do not live in their own house. The result is possible because of the high cost of owning a house which will compete with having children (Ajzen, 2012). This result follows the theory presented by Becker (1965), which states that the consumption of one or both of the houses and children will be reduced with the cost constraint.

The threshold value in the first model is -1.80 (for  $k=0$ ), it is indicated that women that have the lowest characteristic ( $X=0$ ), namely women who live without their parents, do not have their own home, are aged less than 25 years, have a low level of education, not working, not having children, having a partner with a low education level, a partner not working, living in the city, having a low economic condition tends of 0.16 times lower to have no fertility intentions than having fertility intentions low or high. A threshold value of 0.78 (for  $k=1$ ) indicates that women with the lowest characteristic have 0.46 times lower tendency to have no fertility intentions and low fertility intentions than those with high fertility intentions.

In the first model, it can be seen that the independent control variable is significantly related to fertility intentions. Women who are 25-34 years old have a medium or high level of education, work in the formal or informal sector, do not or have not had children, have a medium or high education partner, or have a spouse who works in the formal or informal sector and live in a village. Suppose they are in middle or high-economic households. In that case, they tend to have higher fertility intention than 25 old or 35 years old women who have low education, do not work, and the partner's education low also without work and live in a city with a low economic household.

In the second model, it was found that the variable of homeownership did not have a significant relationship with fertility intentions. In the second model, it was found that the variable of homeownership did not have a significant relationship with fertility intentions. The threshold value in the second model is -2.23 (for  $k = 0$ ), indicating that women with the lowest characteristics have a 0.11 times lower tendency not to have fertility intentions than those with low or high fertility intentions. A threshold with a value of -1.18 (for  $k=1$ ) indicates that women with the lowest characteristics tend to have 0.31 times lower not to have fertility intentions and low fertility intentions than to have high fertility intentions. Not all independent variables in the second model were significantly related to fertility intentions.

The variables significantly related to fertility intentions are women's age, parity, spouse's education, spouse's work status, area of residence, and age of parents/inlaws. As for the variables of women's education, women's working status, household economic conditions, health conditions of parents or inlaws, working status of parents or inlaws, and gender of parents or inlaws were not significantly related to fertility intentions. Women who are 25-34 years old, do not or have not had children, spouse's education is medium or high, spouse works in the formal or informal sector, lives in a village, lives with parents or inlaws who are less than 60 years old, have a higher tendency to have high fertility intentions than women who are less than 25 years old or 35 years old or older, have children, have low education, a spouse who does not work, live in the city, and live with parents or inlaws who are 60 years old or older.

The third model found that after being controlled with other independent variables, the variable living arrangements and ownership of decent housing are significantly related to women's fertility intentions. Women who live with their parents/inlaws have 1.11 times higher tendency to have high fertility intentions than those who have low fertility intentions or do not have fertility intentions compared to women who do not live with their parents/inlaws. Women who live in their own decent homes have 0.81 times lower tendency to have high fertility intentions than women who have low fertility intentions or do not have fertility intentions compared to women who live in their own homes. In the third model, the threshold value of 0.85 (for  $k=0$ ) indicates that women with the lowest characteristics ( $X=0$ ) have a 2.34 times higher tendency not to have fertility intentions than those with low or high fertility intentions. A threshold of 1.88 (for  $k=1$ ) indicates that women with the lowest characteristics have a 6.55 times higher tendency not to have fertility intentions and low fertility intentions than those with high fertility intentions.

Not all independent control variables in the third model were significantly related to fertility intentions. For the sample of 25 to 34 years old, women tend to have high fertility intentions than women who are less than 25 years old or 35 years old or more. Women with high education tend to have high fertility intentions than women with low education levels. Women who have a partner with medium or high education have a higher tendency to have high fertility intentions than those with a partner with a low education level. Women with partners working in the formal or informal sector tend to have higher fertility intentions than those with unemployed spouses. Women who live in villages are known to have a higher tendency to have high fertility intentions than those who live in cities.

The result of the analysis of the three models shows that the three models are not much different. The study found that the desire to have children or more is higher in women living with their parents or inlaws. This analysis results from the theory that living arrangements and the desire to have children are interrelated (Moultrie & Timæus, 2001). In addition, based on the Theory of Planned Behavior also explains that the existence of supporting and inhibiting factors would affect the intention to have children. Support from parents, both in the form of child care and emotional support, will increase the desire to have children (Aizen & Klobas, 2013). The high cost of raising children causes couples to delay having children or deliberately limit the number of children. With the help of parents or inlaws regarding child care, childcare costs can be reduced, and mothers can enter the labor market more freely (Raymo et al., 2010). Research in Indonesia showed that women who live close to their siblings desire more children than women who do not. This phenomenon is due to the help of parenting and financial and emotional support from their close relatives (Snopkowski & Nelson, 2021).

In this study, the variable of homeownership had a significant relationship with female fertility intentions, but the sign was negative. That is, married women aged 15-49 years who have their own house that is not decent and have a decent house of their own have a higher tendency to intend not to have children than married women aged 15 to 49 years old who do not own their own house. These results align with research conducted by [Zhou & Guo \(2020\)](#), which states that there is an opposite relationship between homeownership and the intention to have more children. The negative relationship between homeownership and the intention to have children can be explained through competition for resources to meet needs. This result follows the theory of demand for children, which states that competition for resources meets household consumption. Homeownership and childbearing require extensive economic resources, so when economic conditions are limited, both will compete as a substitution effect in fighting for economic resources ([Murphy & Sullivan, 1985](#)). The effect of this competition can reduce the desire to have children ([Lovenheim & Mumford, 2013](#)).

The inferential analysis results show that women's age has a significant relationship with fertility intentions in the first, second, and third models. Women aged 25-29 years or 30-34 years old have a higher tendency to intend to have children in less than two years than women aged less than 25 years or 35 years and over. This result is under the framework of the Theory of Planned Behavior, which shows that the age of women affects fertility intentions. The older the woman, the lower the tendency to have children in less than two years than women in the younger age group. These results are aligned with research from [Matovu et al. \(2017\)](#) and [Oyediran \(2006\)](#) which shows that old age significantly affects the desire not to have children.

The analysis results show that women with higher education have a higher tendency to intend to have children in less than two years than women with low education. This mechanism was made possible by the delay in having children for women with higher education. They are more focused on completing education rather than forming a family. In addition, higher education gives better job prospects, with a better and stable job giving greater confidence to intend to have children or more children ([Zhou & Guo, 2020](#)). This study found that women who work in the informal sector have a higher tendency to intend to have children in less than two years than women who work in the formal sector. Women who do not have children, who work and have high incomes, are more likely to have the intention of having children ([Berrington, 2004](#)). Based on the number of live births, it is shown that there is a negative and significant relationship between parity and fertility intention, both in the first and second models. The higher the number of children born, the less the tendency to have fertility intentions. The value of the tendency in fertility intentions is the same as the result of research conducted by ([Ewemooje et al., 2020](#)), which states there is a negative relationship between parity to have children.

The study results in the first, second, and third models showed a positive and significant relationship between the couple's education level and fertility intentions. Women who have a spouse with moderate or high education have a higher tendency to intend to have children less than two years than women who have a spouse with low education. This result aligns with ([Balbo & Mills, 2011](#)) research, which shows that a mother with a higher education partner is likelier to want to have more children than a mother with a partner with low education since education is a good proxy for opportunities to reflect success in the labor market ([Kreyenfield, 2002](#)).

The research analysis results show that women who have partners who work in the formal sector have a higher tendency to intend to have children in less than two years compared to women who work in the informal sector. This study's results align with research in Hungary,

which showed that women with unemployed spouses tend to have a desire not to have children (Spéder & Kapitány, 2009). The result is possible by having a partner who works mainly in the formal sector. The household is more financially secure than a partner who does not work. By feeling financially secure, it is possible to increase the desire to have children.

Based on the area of residence, women living in rural areas are more likely to intend to have children in less than two years than women living in cities. Children in rural areas are often expected to provide economic assistance and support in old age care for parents, while dependence on children economically decreases in urban communities (Albert et al., 2005). Based on household economic conditions, household economic conditions approximated by household per capita expenditure have a positive and significant relationship to fertility intention in the first model. In contrast, the second and third models produce an insignificant relationship. Women with medium and high economic conditions tend to intend to have children in less than two years compared to women with low economic conditions. This finding is possible because, with a high income, households can better care for and finance more children (Wang & Wu, 2010). Women who feel financially secure have a higher intention to have children (Bandehelahi et al., 2019; Philipov et al., 2006).

The results showed that parents' age or inlaws significantly related to women's fertility intentions. Women living with parents or inlaws aged less than 60 years have a higher tendency to intend to have children in less than two years than women living with parents or inlaws aged 60 years and over. This study's results align with research by Aassve et al. (2012), which states that the age of parents or inlaws is negatively related to the care of grandchildren. Living close to grandchildren makes it easier for parents or inlaws to assist in raising grandchildren in terms of physical, economic, and moral assistance. Parents or inlaws are essential in raising grandchildren (Wang & Marcotte, 2007). The results of the inferential analysis showed that the health condition of parents or inlaws, work status, and gender of parents or inlaws had no significant relationship to fertility intentions.

Based on the study's results, it was found that women who live with their parents or inlaws have a higher tendency to intend to have children. From these results, it is hoped that there will be programs that provide direction (communication, information, and education) for the elderly through the revitalization of the elderly family development program from the National Family Planning Coordination Board so that the presence of parents or inlaws in the household can improve the quality of children more than the number of children. Based on decent homeownership, it is found that women who occupy houses that are not their own have a higher tendency to intend to have children, couples who cannot yet own their own homes tend to have unstable economic conditions and low access to communication, information, and family planning education, so it is hoped that the government needs to facilitate public access to information and education about family planning and facilitate access to decent housing or provide housing subsidies for the community.

The results show that women with higher education tend to intend to have children, so it is hoped that the government will increase educative information about the importance of improving the quality of children. Based on the research results showing that women living in rural areas tend to intend to have children, the government needs to increase access to information and education services as well as facilities related to family planning in rural areas.

#### **4. Conclusion**

The results of this study, both from the first model and the third model, show that after controlling for several other independent variables, women who live with their parents or

inlaws have a higher tendency to intend to have children in less than two years compared to women who do not live with parents or inlaws. Based on decent housing ownership, it shows that women who occupy houses that are not their own have a higher tendency to intend to have children in less than two years than women who occupy their own houses, both decent and not.

This study used cross-sectional data, so it is impossible to see the realization of female fertility intentions. In addition, this study only looked at variations in fertility intentions based on women's age group, not looking at variations in fertility intentions based on birth cohorts. This study was not able to see how much support from parents/inlaws or in what forms of support from parents/inlaws towards women can affect women's fertility intentions. This study only looks at the presence of parents/inlaws and their characteristics which are thought to affect women's fertility intentions. This study has not examined the influence of the culture of each region on the behavior of fertility intentions. It is essential to examine variations in women's fertility intentions based on differences in sociocultural conditions between regions to see the effect of cultural differences on people's ways of thinking, especially regarding fertility.

The following research will realize female fertility intentions and variations in fertility intentions based on birth cohorts. In addition, it is important to add information about how much parental support/assistance is and in what form. The health condition of parents or inlaws is better approached with information on functional disorders to reflect better the ability of parents or inlaws to provide assistance and support in raising grandchildren. Indonesia is rich in cultural diversity in society. It is hoped that future research will look at variations in female fertility behavior based on differences in sociocultural conditions between regions to see the effect of cultural differences on people's way of thinking, especially regarding fertility.

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### **Author Contribution**

Conceptualization, US; Methodology, US; Software, US; Validation, US; Formal Analysis, US; Investigation, US; Resources, US; Data Curation, US; Writing – Original Draft Preparation, US and TD; Writing – Review & Editing, US and TD; Visualization, US; Supervision, OBS; Project Administration, OBS; and Funding Acquisition, OBS.

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