AG EDITOR

The Relationship Between Women's Empowerment and Demographic Characteristics with the Desire to Have Children in Indonesia

La Relación Entre El Empoderamiento De Las Mujeres Y Las Características Demográficas Con El Deseo De Tener Hijos En Indonesia

Lailatul Yusnida[1], Ferry Efendi[1] ✉, Candra Panji Asmoro[1], Heri Kuswanto[2], Hema Malini[3], Rifky Octavia Pradipta[1], Fadhaa Aditya Kautsar Murti[4], Mahendra Tri Arif Sampurna[5], Lisa McKenna[6]

[1]Faculty of Nursing, Universitas Airlangga, Surabaya, Indonesia.
[2]Department of Statistics, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia.
[3]Faculty of Nursing, Universitas Andalas, Padang, Indonesia.
[4]Faculty of Public Health, Department of Biostatistics and Population Studies, Universitas Indonesia.
[5]Faculty of Medicine, Universitas Airlangga, Surabaya, Indonesia.
[6]School of Nursing and Midwifery, La Trobe University, Melbourne, Victoria, Australia.

Corresponding author: Ferry Efendi ✉

ABSTRACT

Introduction: the desire to have children is a key determinant of women's fertility behavior, inherently linked to their role in childbirth. However, women's empowerment in Indonesia remains low due to a persistent patriarchal culture limiting their decision-making autonomy. Men hold greater authority in decisions, including childbearing. The desire to have children is also influenced by demographic factors like age, education level, and place of residence. This study aims to examine the relationship between women's empowerment and demographic characteristics in relation to the desire to have children among Indonesian women of reproductive age (15-49 years).
Method: this study used secondary data from the 2017 Indonesian Demographic and Health Survey (IDHS) with a cross-sectional design. Univariate analysis, Chi-square tests, and multivariate logistic regression examined the relationship between women's empowerment, demographic characteristics, and the desire to have children, using STATA version 15.
Result: the findings indicate that several factors are significantly associated with the desire to have children. Women aged 40-49 years [AOR=37,48, 95 % CI=32,20-43,62], unemployed status [AOR=1,12, 95 % CI=1,05-1,20], the highest household wealth index [AOR=1,33, 95 % CI=1,17-1,53], history of primary school education [AOR: 1,34, 95 % CI=1,02-1,76], Women who agree with their attitude towards wife beating [AOR=0,90, 95 % CI=0,83-0,6], the wife has the right to refuse sex with her husband [AOR=1,10, 95 % CI=1,03-1,18] significantly related to the desire to have children.
Conclusion: the desire to have children is influenced by both women's empowerment and demographic characteristics. Strengthening women's empowerment is crucial for fostering more equitable decision-making within families

Keywords: Women's Empowerment; Desire to Have Children; Marriage; Indonesian People.

RESUMEN

Introducción: el deseo de tener hijos es un determinante clave del comportamiento de las mujeres en

materia de fertilidad, intrínsecamente ligado a su papel en el parto. Sin embargo, el empoderamiento de las mujeres en Indonesia sigue siendo bajo debido a una persistente cultura patriarcal que limita su autonomía en la toma de decisiones. Los hombres tienen mayor autoridad en las decisiones, incluida la maternidad. El deseo de tener hijos también se ve influido por factores demográficos como la edad, el nivel educativo y el lugar de residencia. Este estudio pretende examinar la relación entre la autonomía de la mujer y las características demográficas en relación con el deseo de tener hijos entre las mujeres indonesias en edad reproductiva (15-49 años).

Método: este estudio utilizó datos secundarios de la Encuesta Demográfica y de Salud de Indonesia (IDHS) de 2017 con un diseño transversal. El análisis univariado, las pruebas de Chi-cuadrado y la regresión logística multivariada examinaron la relación entre el empoderamiento de las mujeres, las características demográficas y el deseo de tener hijos, utilizando STATA versión 15.

Resultado: los resultados indican que varios factores están significativamente asociados con el deseo de tener hijos. Las mujeres de 40-49 años [AOR=37,48, 95 % CI=32,20-43,62], la situación de desempleo [AOR=1,12, 95 % CI=1,05-1,20], el mayor índice de riqueza del hogar [AOR=1,33, 95 % CI=1,17-1,53], el historial de educación primaria [AOR: 1,34, 95 % CI=1,02-1,76], Mujeres que están de acuerdo con su actitud hacia los golpes a la mujer [AOR=0,90, 95 % CI=0,83-0,6], la mujer tiene derecho a negarse a mantener relaciones sexuales con su marido [AOR=1,10, 95 % CI=1,03-1,18] significativamente relacionadas con el deseo de tener hijos.

Conclusión: el deseo de tener hijos está influido tanto por el empoderamiento de la mujer como por las características demográficas. Reforzar el empoderamiento de las mujeres es crucial para fomentar una toma de decisiones más equitativa en el seno de las familias.

Palabras clave: Empoderamiento de la Mujer; Deseo de Tener Hijos; Matrimonio; Pueblo Indonesio.

INTRODUCTION

Fertility behavior in women is strongly influenced by their desire to have children, making it a crucial determinant of reproductive decision-making.[1] Although conception involves both men and women, societal norms often place the primary responsibility for childbearing on women, as they are central to the birth process.[2] In Indonesia, women's empowerment remains relatively low due to the persistence of a patriarchal culture that limits their decision-making autonomy.[3] This deeply rooted patriarchal system grants men greater authority in making household decisions, including those related to childbearing, despite its direct implications for women.[4]

The desire to have children is influenced by demographic characteristics like age, education level, and place of residence.[5] However, studies show that women's empowerment also plays a crucial role in shaping fertility decisions.[6] In Indonesia, achieving gender equality is both an effort to restore women's rights and a key component of sustainable development.[2] This contradiction presents an area for investigation, given limited research on the relationship between women's empowerment, demographics, and the desire for children in Indonesia. United Nations data shows the global birth rate declined from 3,2 to 2,5 live births per woman between 1990 and 2019 (United Nations, 2020). Despite this trend, Indonesia's population is projected to grow from 238,5 million in 2010 to 305,6 million by 2035.[8] Many parents still choose to expand their families despite associated risks.[9] The 2017 Indonesian Demographic and Health Survey (IDHS) found that 18 % of married women aged 15-49 years and 17 % of married men aged 15–54 years wanted more children within two years. Additionally, 20 % of women and 23 % of men wanted more children after two years. Approximately half of those surveyed—15 % of women and 49 % of men—did not wish to have more children or had undergone sterilization.[10]

According to research conducted in sub-Saharan Africa the demographic factors related to the number of children desired include age, education level, partner's education, parity, current contraceptive use, ideal number of children, decision-making capacity, number of living children and place of residence. Stay.[4] Having a large number of children poses various challenges, both within the family and society. At the societal level, rapid population growth can lead to a decline in public welfare and contribute to social issues such as unemployment, increased crime rates, socioeconomic inequality, and inadequate access to health and education services.[9] On the other hand, having more children in a family is often perceived positively, as children can assist parents, bring happiness, serve as successors to the family lineage, and provide security in old age.[11] Additionally, multiple studies highlight that higher levels of women's empowerment are significantly associated with lower fertility rates, suggesting that as women gain greater autonomy, they tend to have fewer children.[12]

Women's empowerment is recognized as a key solution in shaping birth patterns in Indonesia, influencing the desire to have children, determining birth spacing, and deciding the number of children, particularly through the use of contraceptive methods.[13]and the components retained were identified as the domains of empowerment. These were: Beliefs about violence against women, Decision-making, and Control over

sexuality and safe sex. A multinomial logistic regression was run to estimate the association between levels of empowerment for each domain and the study outcomes. Crude and adjusted odds ratio (OR The World Bank defines empowerment as a process that enhances the capacity of individuals or groups to make choices and transform them into desired actions and outcomes.[14] Research conducted in the Netherlands identifies several key components of empowerment, including the power to act, participation, autonomy, self-direction, self-determination, freedom of expression, decision-making ability, self-confidence, and mobilization.[15] Given the issues outlined above, this study aims to examine the relationship between women's empowerment, demographic characteristics, and the desire to have children among Indonesian women of reproductive age (15–49 years) using data from the 2017 Indonesian Demographic and Health Survey (IDHS).

METHOD
Design and data source
This present study comprised a secondary data analysis of nationally representative data from the Indonesian Demographic and Health Survey (IDHS). This study employed a cross-sectional observational design to analyze the relationship between women's empowerment, demographic characteristics, and the desire to have children in Indonesia.

The Demographic and Health Survey (DHS) is a global research initiative encompassing more than 90 countries, with its data accessible to the public at http://www.dhsprogram.com/data/available-datasets.cfm. The survey utilizes a complex sampling methodology, which involves stratifying participants based on their region and urban or rural classification prior to household selection. Comprehensive information regarding the sampling techniques employed in data collection can be found on the DHS website.[16]

Population and Sample
The research utilized data from the 2017 IDHS, focusing on mothers aged 15-49 who had given birth within the five years prior to the survey and agreed to participate. The sample consisted of women from low and middle economic backgrounds, as determined by wealth quintile calculations ranging from the lowest to middle quintiles. This study employed a two-stage stratified cluster sampling method, following the sampling design of the IDHS 2017. The first stage of sampling was the selection of several census blocks using a probability proportional to size approach. In the second sampling stage, a random sample of ordinary households was selected from the list of census blocks, and eligible women were interviewed.[10] The IDHS provides rich information and up-to-date estimates of fundamental demographic and health indicators, with a 98 % response rate at the household level. Incomplete or unavailable data were excluded from the database. The study population was all women aged 15–49 years who had children. All women aged 15–49 years were eligible for inclusion in the study. Out of 49 627 eligible women, the final sample included 31 150 mothers who met the study criteria. Further information on the wealth index calculation and construction can be found in existing literature

Instruments
The instrument used in this study was a structured questionnaire from the 2017 Indonesian Demographic Health Survey (IDHS). The questionnaire collected data on the desire to have children, demographic characteristics (age, occupation, household wealth index, place of residence, and education level), and women's empowerment indicators (wife's participation in decision-making, attitude toward wife beating, and the right to refuse sexual relations). All variables were measured using standardized survey items developed by the Demographic and Health Surveys (DHS) Program, ensuring validity and reliability in data collection.

Variables
This study examined both independent and dependent variables to analyze the relationship between women's empowerment, demographic characteristics, and the desire to have children. The independent variables in this study are the demographic characteristics of women including age, occupation, household wealth index, place of residence, and education level. The second is women's empowerment consisting of the wife's participation in decision making, attitude towards wife beating, and the wife has the right to refuse sex. The dependent variable used in this study is the desire to have children.

Statistical Analysis
Data analysis was conducted using STATA version 15. Descriptive statistics were used for univariate analysis to summarize the distribution of variables. Bivariate analysis was performed using the Chi-square test to examine the association between independent variables (demographic characteristics and women's empowerment) and the dependent variable (desire to have children). Multivariate logistic regression was employed to determine the adjusted odds ratios (AOR) and assess the strength of relationships between variables while controlling for

potential confounders. Statistical significance was set at p < 0,05.

Ethical Statement

The 2017 Indonesian Demographic and Health Survey (IDHS) has received ethical approval from the National Health Research and Development Agency, Indonesian Ministry of Health. All identities of the respondents have been erased, and all respondents have provided written informed consent which has been signed and kept under the management of the Ministry of Health. Ethical approval for the IDHS was granted by the Inner-City Fund (ICF) OCR Macro (number 45 CFR 46) and the National Board Review of the Ministry of Health, Republic of Indonesia, and all participants provided informed consent prior to the study.

RESULTS

Table 1. Results of analysis Univariate Analysis of Relationship Research Women's Empowerment and Demographic Characteristics with Desire to Have Children =(n=31,150)		
Variable	**Frequencies (n)**	**Percentage (%)**
Age		
15-23 years	2,976	9,06
24-34 years	12,291	37,39
35-39 years	6,643	20,21
40-49 years	10,957	33,34
Job status		
Working	20,272	61,68
Notworking	12,595	38,32
Wealth index combined		
Poorest	5,570	16,95
Poorer	6,511	19,81
Middle	6,813	20,73
Richer	7,076	21,53
Richest	6,897	20,98
Residence		
Urban	16,062	48,87
Rural	16,805	51,13
Education		
No education	527	1,60
Primary	10,808	32,88
Secondary	17,369	52,85
Higher	4,163	12,66
Wife's participation in decision making		
Wife	1,325	4,03
Wife and husband	2,773	8,44
Husband/others	28,769	87,53
Attitude towards wife beating		
Does not support	22,706	69,08
Support	10,161	30,92
The wife has the right to refuse sex		
The right to refuse sex	13,904	42,30
No right to refuse sex	18,963	57,70
Desire to have children		
Have another child	13,128	39,94
Undecided	2,022	6,15
No more	17,394	52,92
Says she can't get pregnant	323	0,98
Source: IDHS 2017		

Based on table 1, the total sample consisted of 32 867 women aged 15-49 years. Age was categorized into four groups: 15-23 years, 24-34 years, 35-39 years, and 40-49 years. The highest proportion of women fell within the 24-34 year age group, totalling 12,291 women (37,39 %), followed by the 40-49 year age group with 10 957 women (33,34 %). The smallest proportion was in the 15-23 year age group, with 2,976 women (9,06 %), while 6 643 women (20,21 %) were in the 35–39 year age group. Employment status was classified into two categories: employed and unemployed. A total of 20,272 women (61,68 %) were employed, while 12 595 women (38,32 %) were unemployed

The household wealth index was categorized into five groups: lowest, lower middle, middle, upper middle, and highest. The largest proportion of respondents belonged to the upper middle wealth category, with 7 076 respondents (21,53 %), followed by the highest wealth category with 6 897 respondents (20,98 %). The middle wealth category comprised 6 813 respondents (20,73 %), while the lower middle category included 6 511 respondents (19,81 %). The smallest proportion of respondents fell within the lowest wealth category, totalling 5 570 respondents (16,95 %). Residence was classified into two categories: rural and urban. A total of 16 805 women (51,13 %) resided in rural areas, while 16 062 women (48,87 %) lived in urban areas.

Education was categorized into four levels: 527 women (1,60 %) had no formal education, 10 808 women (32,88 %) had only completed elementary school, 17 369 women (52,85 %) had attended junior high or high school, and 4 163 women (12,66 %) had pursued higher education at the college level. The results indicate that the majority of women had a junior high or high school education, followed by those with elementary school education. A smaller proportion of women had no formal education, while the smallest group consisted of women who had attained higher education at the college level.

Wives' participation in household decision-making was categorized into three groups. The majority of decisions were made by the husband or other individuals, accounting for 28 769 respondents (87,53 %). Meanwhile, 2 773 respondents (8,44 %) reported joint decision-making between the wife and husband, and only 1 325 respondents (4,03 %) indicated that the wife was the sole decision-maker. Attitudes toward wife beating were classified into two categories: supporting and not supporting. The findings showed that 10 161 women (30,92 %) supported the idea that husbands have the right to beat their wives, whereas 22 706 women (69,08 %) opposed such behavior.

The right of a wife to refuse sexual relations was categorized into two groups: not having the right to refuse and having the right to refuse. The results indicated that 13 904 women (42,30 %) believed they did not have the right to refuse sex, whereas a larger proportion, 18 963 women (57,70 %), reported having the right to refuse sex. The desire to have children was classified into four categories. The majority of women, 17 394 respondents (52,92 %), stated that they did not want more children. Meanwhile, 13 128 respondents (39,94 %) expressed a desire to have more children, 2 022 respondents (6,15 %) remained undecided, and the smallest proportion, 323 respondents (0,98 %), reported that they were unable to conceive.

Table 2. Results of Bivariate Analysis of Empowerment Relationship Research Women And Demographic Characteristics with The Desire To Have Children

Variable Independent	Dependent								*p-value*	X2
	The desire to have children									
	Want another child		Haven't decided yet		Don't want any more children		Can't get pregnant			
	n	%	n	%	n	%	n	%		
Age									0,0000***	9718,2027
15-23 years	2,508	84,28	256	8,63	210	7,07	59	0,02		
24-34 years	7,415	60,33	1,064	8,66	3,797	30,90	13	0,11		
35-99 years	1,841	27,73	440	6,63	4,339	65,32	21	0,32		
40-49 years	1,362	12,43	261	2,39	9,046	82,56	287	2,63		
Job Status									0,0000***	76,4816
Working	7,759	38,28	1,215	6,00	11,064	54,58	232	1,15		
Not working	5,368	42,62	807	6,41	6,329	50,25	90	0,72		
Wealth index combined									0,0000***	139,6515
Poorest	2,435	43,72	400	7,19	2,666	47,87	67	1,22		
Poorer	2,598	39,91	445	6,84	3,398	52,20	68	1,05		
Middle	2,789	40,94	415	6,10	3,551	52,13	56	0,83		
Richer	2,844	40,20	391	5,54	3,777	53,39	61	0,87		
Richest	2,460	35,67	369	5,35	3,999	57,99	68	0,99		

Residence									0,0000***	65,7458
Urban	6,135	38,20	902	5,62	8,852	55,12	171	1,07		
Rural	6,992	41,61	1,120	6,67	8,541	50,82	151	0,90		
Education									0,0000***	1013,0508
No education	148	28,17	17	3,28	336	63,84	24	4,70		
Primary	3,177	29,40	644	5,96	6,838	63,27	148	1,37		
Secondary	7,608	43,80	1,114	6,41	8,523	49,07	123	0,71		
Higher	2,194	52,71	246	5,92	1,695	40,72	26	0,64		
Wife's participation in decision making									0,0006***	37,3433
Wife	532	40,19	116	8,82	657	49,59	18	1,40		
Wife and husband	1,162	41,90	204	7,36	1,385	49,94	22	0,80		
Husband/others	11,433	39,74	1,701	5,91	15,351	53,36	282	0,98		
Attitude towards wife beating									0,0000***	99,1027
Does not support	8,715	38,38	1,327	5,85	12,423	54,71	239	1,06		
Support	4,412	43,43	694	6,84	4,970	48,92	83	0,82		
The wife has the right to refuse sex									0,1949	7,1074
The right to refuse sex	5,595	40,24	902	6,49	7,264	52,24	142	1,03		
No right to refuse sex	7,533	39,72	1,120	5,91	10,129	53,42	180	0,95		

Source: IDHS 2017
Notes: * = p<0,05; ** = p<0,01; *** = p<0,001; */**/*** = significant

The research findings presented in table 2 indicate that, based on bivariate analysis, seven independent variables show a significant association with the desire to have children (p-value < 0,05). These variables include age (p-value = 0,0000), occupation (p-value = 0,0000), household wealth index (p-value = 0,0000), place of residence (p-value = 0,0000), education (p-value = 0,0000), wife's participation in decision-making (p-value = 0,0006), and attitude toward wife beating (p-value = 0,0000). Conversely, the variable wife's right to refuse sex (p-value = 0,1949) does not exhibit a significant association with the desire to have children, as its p-value exceeds the 0,05 threshold.

Table 3. Results of Multivariate Analysis of Empowerment Relationship Research Women And Demographic Characteristics With The Desire To Have Children			
	Desire to have children		
	AOR	**95 % CI**	*p-value*
Age			
15-23 years		*Ref*	
24-34 years	3,70	3,23-4,23	0,000***
35-39 years	14,25	12,33-16,48	0,000***
40-49 years	37,48	32,20-43,62	0,000***
Job Status			
Working		*Ref*	
Not working	1,12	1,05-1,20	0,001***
Wealth index combined			
Poorest		*Ref*	
Poorer	1,18	1,06-1,32	0,001***
Middle	1,07	0,95-1,21	0,212
Richer	1,11	0,98-1,25	0,086
Richest	1,33	1,17-1,53	0,000***
Residence			
Urban		*Ref*	
Rural	0,94	0,86-1,02	0,144
Education			

No education		*Ref*	
Primary	1,34	1,02-1,76	0,035**
Secondary	1,06	0,80-1,41	0,646
Higher	0,54	0,40-0,73	0,000***
Wife's participation in decision making			
Wife		*Ref*	
Wife and husband	0,83	0,68-1,02	0,082
Husband/others	0,88	0,74-1,04	0,152
Attitude towards wife beating			
Does not support		*Ref*	
Support	0,90	0,83-0,96	0,005**
The wife has the right to refuse sex			
The right to refuse sex		*Ref*	
No right to refuse sex	1,10	1,03-1,18	0,003***

Source: IDHS 2017
Notes: OR = odds ratio; *p<0,05; **p<0,01; ***p<0,001 = significant

The results of the research contained in Table 3 show that age is related to the desire to have children in Indonesia. Women aged 40-49 years, ages 35-39 years, and ages 24-34 years 37,48 times, 14,25 times, and 3,70 times more desire to have children than women aged 15-23 years. Women with unemployed status are 1,12 times more likely to have children than working women. Women who have the highest household wealth index and lower middle class are 1,33 times and 1,18 times more willing to have children than women who have the lowest household wealth index. Meanwhile, women who have a middle and upper-middle-class household wealth index show no significant results on the desire to have children in Indonesia. Variables that show insignificant results are also found in the place of residence.

Women who have a history of primary school education are 1,34 times more likely to want to have children than women who have a history of college education and are not in school. Meanwhile, women who had a history of junior high/high school education showed no significant results on the desire to have children. The wife's participation in decision-making shows insignificant results with the desire to have children in Indonesia.

Women who show a non-supportive attitude towards wife-beating are 0,90 times more likely to want to have children than women who show a supportive attitude towards wife-beating. Women who have the right to refuse sex with their husbands are 1,10 times more likely to want to have children than women who have no right to refuse sex with their husbands.

DISCUSSION

This study examines the relationship between women's empowerment (wife's participation in decision making, attitudes toward wife beating, and wives having the right to refuse sex) and women's demographic characteristics (age, occupation, household wealth index, place of residence, and education) with the desire to having children to women of childbearing age in Indonesia.

The analysis in this study found that women in the age group of 40-49 years were 37,48 times more willing to have children compared to women aged 15-23 years. The results of this study are in line with research conducted in Ethiopia which said women aged 35-49 years were significantly associated with the desire to have children compared to women aged 15-24 years.[17] This is because young women tend to be more concerned with education and career than taking care of the family let alone having children.[18] Meanwhile, if seen in the age range of 24-34 years, entering the age that is ready to get married and have children. Whereas women aged 40-49 years tend to have their economic needs met and are no longer focused on pursuing a career, so they have more time for their family, and want someone to accompany them in their old age. Women aged 40-49 years are also considered at the end of their reproductive age.[19]

The employment status of women is proven to have a significant relationship with the desire to have children in Indonesia. The results showed that women with unemployed status were 1,12 times more willing to have children than women with working status. The results of this study are in line with research conducted in Blitar, East Java, women who do not work significantly influence the desire to have children compared to working women (Hidayat & Notobroto, 2012). This is because women of childbearing age who work have limited time to take care of more children.[5] Therefore, women who do not work have more desire to have children than those who do not work.

The results of the study show that the household wealth index is significantly related to the desire to have children in Indonesia. The results of the research on the highest household wealth index are 1,33 times more

willing to have children than women with the lowest household wealth index. The results of this study are inversely proportional to research in Bandung which says that women with low socioeconomic status are more willing to have children than women with middle to upper socioeconomic status.[21] This is because women with a higher economy have a greater desire to have children. After all, they consider children an investment in the future, so they prioritize the quality of their children. With a good economy, it is hoped that all the economic costs of children will be met, such as costs incurred while having children, including education, health, operational needs, and nutritional improvements.

The results of the residence study show that it is not significant with the desire to have children in Indonesia. This is inversely proportional to research in Sub Sahara where residence has a significant relationship with the desire to have children. Women who live in rural areas are more likely to have a desire to have children compared to women who live in urban areas.[4] This is because families in rural areas perceive children as a source of benefit higher than families in urban areas, so they tend to want more children. This condition is caused by the community's perception that many children have a lot of fortune.[9] Although the place of residence is not a significant factor in the desire to have children in Indonesia. However, the residence should not be ignored because it is one of the drivers of the desire to have children. Place of residence is not related to the desire to have children, this is because many people living in urban and rural areas now have a more open mindset. One of them is that having children is not only to help work and continue offspring but also an investment in the future so that they think more about the quality of their children.[9] This is because education in both rural and urban areas is currently more evenly distributed because the government in Indonesia implements a 12-year compulsory education program in each region.[22]

Education has a significant relationship with the desire to have children in Indonesia. Women with a history of elementary school education are 1,34 times more likely to have children than women who do not go to school. The results of this study are in line with research conducted in West Nusa Tenggara, namely the level of education has a significant effect on the desire to have children in women of childbearing age. Women with low education (SD) are 1,7 times more likely to desire children than women with higher education. This is because the education a woman gets will influence her mindset and decision-making, including its relation to her desire to have children. Women with higher levels of education tend to be more accepting of new ideas, including understanding how to plan for the number of children they want.[5] This also shows that highly educated women are synonymous with less desire to have children because highly educated women prefer to focus on work first and choose to delay having children. This is because women with higher levels of education tend to suppress the desire to have children while studying. The level of education can also reduce the desire for the number of children, better birth control, and affect the desired family size.[23]

Wife's participation in decision-making is not significant with the desire to have children in Indonesia. This is inversely proportional to research in sub-Saharan Africa where the wife's participation in decision-making has a significant impact on the desire to have children. The results of this study indicate that decision-making involving respondents and their husbands has more influence on the desire to have children than decisions made by the respondents themselves or other people.[4]

Attitude toward wife beating has a significant relationship with the desire to have children in Indonesia. Women who do not support their attitude towards wife-beating are 0,90 times more likely to have children than women who support their attitude towards wife-beating. The results of this study are in line with research conducted in Mali (Sub Sahara) which states that women who do not support attitudes towards wife beating have a greater desire to have children.[24] This shows that acts of violence against women can have a detrimental impact on victims, one of which results in an attitude of surrender and a feeling of being willing to accept violence from their husbands. In addition, the patriarchal culture of society also reinforces the occurrence of violence against wives because society still considers men's position to be higher than that of women, so it is difficult for women to determine their desire to have children according to their wishes.[25] Low educational attainment among women is also associated with low awareness of their rights, thereby increasing their risk of experiencing and receiving violence perpetrated by their husbands.

The wife has the right to refuse sex has a significant relationship with the desire to have children in Indonesia. Women who have the right to refuse sex with their husbands are 1,10 times more likely to want to have children than women who have no right to refuse sex with their husbands. The results of this study are in line with research conducted in Malawi, where women's sexual rights are significantly related to the desire to have children. Women who have autonomy or the right to refuse sex are 0,90 times more willing to have children than those who cannot refuse sex with their husbands.[26] This shows that the wife has the right to refuse sex associated with a greater encouragement of the desire to have children because they have the freedom to determine their rights.

The most dominant factor related to the desire to have children in Indonesia is age, women aged 40-49 years are 37,48 times more likely to have children than women aged 15-23 years. The two most related were education, women with a history of elementary and college education were 1,34 times and 0,54 times more

likely to have a desire to have children than women with a history of non-school education. The third that is related is the household wealth index, women with the highest household wealth index are 1,33 times more willing to have children than women with the lowest household wealth index. The four that are related are employment status, women with non-working status are 1,12 times more likely to have children than women with working status. The fifth that is related is that the wife has the right to refuse sex, women who have the right to refuse sex with their husbands are 1,10 times more likely to want to have children than women who do not have the right to refuse sex with their husbands. The sixth that is related is the attitude towards wife beating, women who support wife beating have 0,90 times more desire to have children than women who do not support the attitude towards wife beating.

The limitations of this study are that this research uses data from the 2017 Indonesian Demographic Health Survey (IDHS), while research on the relationship between women's empowerment and demographic characteristics with the desire to have children in Indonesia will be conducted in 2023. In addition, the limited variables in secondary data cause the research results to have not varied because the source of the variables used is only the results of the 2017 Indonesian Health Demographic Survey (IDHS).

CONCLUSION

This study shows that in general, women aged >23 years always have more significant scores than those aged <23 years. Women with unemployed status are more willing to have children than women who are working, and the index of top and bottom middle household wealth has a more significant value than women with the lowest index of household wealth. However, this study found that in general, women with a history of elementary school education showed a more significant value related to the desire to have children, women who agreed with their attitude towards wife beating showed more significant values influencing the desire to have children, women who had the right to being able to refuse sex with a husband has more influence on the desire to have children, the age of the woman shows the strongest relationship with the desire to have children in Indonesia, while the place of residence and the wife's participation in decision-making shows no significant results. The factors identified in this study are expected to be taken into consideration in increasing women's empowerment and demographic characteristics with the desire to have children in Indonesia.

REFERENCES

1. World Health Organization. State of the World's Nursing Report-2020 [Internet]. Https://Www.Who. Int/China/News/Detail/07-04-2020-World-Health-Day-2020-Year-of-the-Nurse-and-Midwife. 2020. 1-144 p. Available from: file:///C:/Users/Rosa/Desktop/tesis 222/9789240003279-eng estado de enfermeria 2020 oms. pdf

2. Fushshilat SR, Nurwati N. Pemberdayaan Perempuan : Efektivitas Dalam Penurunan Fertilitas. J Ilmu Kesejaht Sos "Humanitas" Fisip Unpas. 2021;Iii(September):17-32.

3. Nurdin N. Implementing Gender Mainstreaming in Indonesian Local Government: The Case of Tangerang Regency. J Transform. 2022;8(1):31-56.

4. Ahinkorah OB, Seidu A-A, Ansah EKA, Budu E, Ameyaw EK, Ebenezer A, et al. Drivers of desire for more children among childbearing women in sub-Saharan Africa: implications for fertility control. BMC Pregnancy Childbirth. 2020;20(1):1-11.

5. Handayani BN, Rusyda MI. Faktor-Faktor Yang Mempengaruhi Keinginan Memiliki Anak Lebih Dari Dua Di Nusa Tenggara Barat. J midwifery Updat MU) [Internet]. 2020;2(1):35-42. Available from: https://jurnalmu. poltekkes-mataram.ac.id/index.php/jurnalmu/article/view/75

6. Prata N, Fraser A, Huchko MJ, Gipson JD, Withers M, Lewis S, et al. Women's Empowerment and Family planning. J Biosoc Sci. 2017;49(6):713-43.

7. United Nations Department of Economic and Social Affairs. World Fertility and Family Planning 2020. Dep Econ Soc Aff Popul Div. 2020;(January):1-42.

8. BPS. Proyeksi Penduduk Indonesia 2015-2045 Hasil SUPAS 2015. Revisi Edi. ISBN : 978-602-438-322-0 No.; 2018. 505 p.

9. Handayani A, Najib N. Keinginan Memiliki Anak Berdasarkan Teori Pilihan Rasional (Analisis Data Sdki Tahun 2017). EMPATI-Jurnal Bimbing dan Konseling. 2019;6(2):31-40.

10. BKKBN, BPS, Kemenkes, ICF. Indonesia Demographic and Health Survey 2017 [Internet]. BKKBN, Bps, Kemenkes, dan ICF. Jakarta; 2018. Available from: https://dhsprogram.com/pubs/pdf/FR342/FR342.pdf

11. Listyaningsih U, Suminii S. Jumlah Anak Ideal Menurut Remaja Di Daerah Istimewa Yogyakarta. Popul J Keperawatan dan Kebijak [Internet]. 2015 Nov 1 [cited 2025 Mar 4];23(2):38–54. Available from: https://jurnal.ugm.ac.id/populasi/article/view/15694

12. Saberi T, Ehsanpour S, Mahaki B, Kohan S. Comparison of the Relationship between Women's Empowerment and Fertility between Single - child and Multi - child Families. 2018;131–5.

13. Castro LS, Constant D, Fraga S, Harries J. How women's empowerment influences fertility-related outcomes and contraceptive practices: A cross-sectional study in Mozambique. PLOS Glob Public Heal. 2022;2(9):e0000670.

14. Atake EH, Gnakou Ali P. Women's empowerment and fertility preferences in high fertility countries in Sub-Saharan Africa. BMC Womens Health. 2019;19(1):1–14.

15. Linda, De Vijlder F, Schalk R, Van Regenmortel M. A systematic review on organizational empowerment. Int J Organ Anal. 2019;27(5):1336–61.

16. ICF. Demographic and Health Surveys Standard Recode Manual for DHS 7. The Demographic and Health Surveys Program. Rockville, Maryland, U.S.A.: ICF [Internet]. USA: ICF; 2018. 1–204 p. Available from: https://dhsprogram.com/pubs/pdf/DHSG4/Recode7_DHS_10Sep2018_DHSG4.pdf

17. Muluneh MW, Moyehodie YA. Determinants of desire for more children among women in Ethiopia. BMC Womens Health. 2021;21(1):1–7.

18. Mulyadi B. Fenomena Penurunan Angka Pernikahan Dan Perkembangan Budaya Omiai Di Jepang. Kiryoku. 2018;2(2):65.

19. Ningsi A, Mukarramah S, Mukarramah S, Sukmayanti S, Sukmayanti S. Gambaran Pengetahuan Premenopause Tentang Perubahan Fisik Dalam Menghadapi Masa Menopause Di Dusun Mannyoi Desa Tamannyeleng Kecamatan Barombong Kab. Gowa. Media Keperawatan Politek Kesehat Makassar [Internet]. 2021 Feb 11 [cited 2025 Mar 4];11(2):136–41. Available from: https://journal.poltekkes-mks.ac.id/ojs2/index.php/mediakeperawatan/article/view/1640

20. Hidayat R, Notobroto B. Faktor yang Memengaruhi Preferensi Jumlah Anak. 2012;55–62.

21. Ekawati R, Rahayuwati L, Nurhidayah I, Agustina HS, Rahayu E. Determinant Factors of Fertility in Reproductive Age Women. J Keperawatan Padjadjaran. 2019;7(3):283–93.

22. Khairunnisa, Tinus A. tujuan Negara Republik Indonesia adalah Tahun 2003 Tentang Sistem Pendidikan. 2018;6:63–75.

23. Raharja MB. Fertilitas Remaja di Indonesia. Kesmas Natl Public Heal J. 2014;9(1):6.

24. Upadhyay UD, Karasek D. Women's Empowerment and Achievement of Desired Fertility in Sub-Saharan Africa. DHS Work Pap No 80. 2011;(December):8.

25. Fajrini F, Ariasih RA, Latifah A N. Determinan Sikap Tindak Kekerasan dalam Rumah Tangga di Provinsi Banten. Aspir J Masal Sos. 2019;9(2):173–89.

26. Forty J, Navaneetham K, Letamo G. Determinants of fertility in Malawi: Does women autonomy dimension matter? BMC Womens Health. 2022;22(1):1–16.

CONFLICT OF INTEREST

The authors declarate that there is no conflict of interest.

AUTHOR CONTRIBUTIONS

Conceptualization: Lailatul Yusnida, Ferry Efendi, Candra Panji Asmoro, Heri Kuswanto, Hema Malini, Rifky Octavia Pradipta, Fadhaa Aditya Kautsar Murti, Mahendra Tri Arif Sampurna, Lisa McKenna.

Data curation: Lailatul Yusnida, Ferry Efendi, Candra Panji Asmoro, Heri Kuswanto, Hema Malini, Rifky Octavia Pradipta, Fadhaa Aditya Kautsar Murti, Mahendra Tri Arif Sampurna, Lisa McKenna.

Formal analysis: Lailatul Yusnida, Ferry Efendi, Candra Panji Asmoro, Heri Kuswanto, Hema Malini, Rifky Octavia Pradipta, Fadhaa Aditya Kautsar Murti, Mahendra Tri Arif Sampurna, Lisa McKenna.

Research: Lailatul Yusnida, Ferry Efendi, Candra Panji Asmoro, Heri Kuswanto, Hema Malini, Rifky Octavia Pradipta, Fadhaa Aditya Kautsar Murti, Mahendra Tri Arif Sampurna, Lisa McKenna.

Methodology: Lailatul Yusnida, Ferry Efendi, Candra Panji Asmoro, Heri Kuswanto, Hema Malini, Rifky Octavia Pradipta, Fadhaa Aditya Kautsar Murti, Mahendra Tri Arif Sampurna, Lisa McKenna.

Project management: Lailatul Yusnida, Ferry Efendi, Candra Panji Asmoro, Heri Kuswanto, Hema Malini, Rifky Octavia Pradipta, Fadhaa Aditya Kautsar Murti, Mahendra Tri Arif Sampurna, Lisa McKenna.

Resources: Lailatul Yusnida, Ferry Efendi, Candra Panji Asmoro, Heri Kuswanto, Hema Malini, Rifky Octavia Pradipta, Fadhaa Aditya Kautsar Murti, Mahendra Tri Arif Sampurna, Lisa McKenna.

Software: Lailatul Yusnida, Ferry Efendi, Candra Panji Asmoro, Heri Kuswanto, Hema Malini, Rifky Octavia Pradipta, Fadhaa Aditya Kautsar Murti, Mahendra Tri Arif Sampurna, Lisa McKenna.

Supervision: Lailatul Yusnida, Ferry Efendi, Candra Panji Asmoro, Heri Kuswanto, Hema Malini, Rifky Octavia Pradipta, Fadhaa Aditya Kautsar Murti, Mahendra Tri Arif Sampurna, Lisa McKenna.

Validation: Lailatul Yusnida, Ferry Efendi, Candra Panji Asmoro, Heri Kuswanto, Hema Malini, Rifky Octavia Pradipta, Fadhaa Aditya Kautsar Murti, Mahendra Tri Arif Sampurna, Lisa McKenna.

Display: Lailatul Yusnida, Ferry Efendi, Candra Panji Asmoro, Heri Kuswanto, Hema Malini, Rifky Octavia Pradipta, Fadhaa Aditya Kautsar Murti, Mahendra Tri Arif Sampurna, Lisa McKenna.

Drafting - original draft: Lailatul Yusnida, Ferry Efendi, Candra Panji Asmoro, Heri Kuswanto, Hema Malini, Rifky Octavia Pradipta, Fadhaa Aditya Kautsar Murti, Mahendra Tri Arif Sampurna, Lisa McKenna.

Writing - proofreading and editing: Lailatul Yusnida, Ferry Efendi, Candra Panji Asmoro, Heri Kuswanto, Hema Malini, Rifky Octavia Pradipta, Fadhaa Aditya Kautsar Murti, Mahendra Tri Arif Sampurna, Lisa McKenna.