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Trends and Determinants of Family Planning Utilization Among Men in Indonesia

Haerawati Idris

Faculty of Public Health, Sriwijaya University, South Sumatera 30862, Indonesia, haera@fkm.unsri.ac.id

Willyana Syafriyanti

Faculty of Public Health, Sriwijaya University, South Sumatera 30862, Indonesia, willyanasyaf@gmail.com

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Trends and Determinants of Family Planning Utilization Among Men in Indonesia

Haerawati Idris^{*}, Willyana Syafriyanti

Faculty of Public Health, Sriwijaya University, South Sumatera 30862, Indonesia

Abstract

Background: Population growth rate in the world is still increasing. To control population growth, governments issue family planning programs for married women and men. However, contraception use is still dominated by women. This study aims to analyze the trends and determinants of family planning utilization among men in Indonesia.

Methods: This study is quantitative in nature with a cross-sectional design, using secondary data from the Indonesian Health Demographic Survey (2007–2017). The sample comprised married men with a total of 27,859 respondents. For the final analysis, we conducted logistic regression statistical tests to determine family planning utilization among men.

Results: Family planning utilization trends among married men in Indonesia increased. The proportion utilization of family planning among men was 3.7% (2007), 4.2% (2012), and 5.6% (2017). Higher and secondary education, media exposure, age, type of residence, and economic status significantly correlated with family planning utilization among married men. Higher education was the most dominant factor associated with family planning utilization among males in Indonesia ($p < 0.001$; Prevalence Ratio (PR) 4.636 Confidence Interval 95% (3.645–5.897).

Conclusions: Male education is the most crucial factor of family planning utilization. Increasing knowledge regarding family planning is expected to increase information and awareness about family planning utilization.

Keywords: contraceptive agents, family planning service, Indonesia, male

INTRODUCTION

Population growth rate still increases and reproductive health problems still occur. Approximately 210 million pregnancies are reported annually worldwide, 182 million of them in developing countries. Approximately 46 million pregnancies (20%) each year end in abortion, 36 million abortions occur in developing countries, and 10 million in developed countries.¹ It also happens in Indonesia. Indonesia is one of the five most populous countries where population growth is still relatively high. To control population growth, the government has issued family planning programs for married women and men. However, contraception use is still dominated by women. Utilization for men is relatively low in Indonesia. The Indonesian Demographic and Health Survey (IDHS) 2017 reports that only 2.5% of men use condoms and 0.2% vasectomy.² According to the data from the Indonesian Ministry of Health 2018, 1.75% of men use contraception.³ Men's involvement in reproductive health issues is significant to achieve Sustainable Development Goals (SDGs). SDG number 5.6 targets to ensure universal access to sexual and reproductive health and reproductive rights.⁴ Global commitment, linked to the

Program of Action of the International Conference on Population and Development and the Beijing Platform for action, has been stated to involve men in family planning and reproductive health programs.⁵

Men have an important responsibility to reduce unwanted pregnancies, especially in developing countries.⁶ Male participation in family planning is low in semi-urban Nigeria. These reasons are related to various complex factors, such as the desire to have more children and their old age.⁶ Men's ideas about their ideal family members, gender preferences, ideal birth intervals, family planning methods, and the sociocultural environment can influence their reproductive behaviors. In developing countries, such as Ethiopia, having children, especially boys, is one of the criteria that determines the reputations of men, women, and family strength associated with low male participation in family planning.⁷

Various factors influence males to use contraceptives. A study in Bangladesh reports that men likely participate in family planning. Wives who are educated about reproductive health are involved in skilled work, have high knowledge about contraception, connect with social networks and receive messages about family planning and reproductive health, have good partner communication, and have a high age.⁸ Research from Kenya states that the region of residence, marital status, religion, wealth, interaction with healthcare providers,

*Corresponding author:

Haerawati Idris
Faculty of Public Health, Sriwijaya University,
South Sumatera, Indonesia
E-mail: haera@fkm.unsri.ac.id

fertility preference, number of sexual partners, and access to media are all significantly associated with modern contraceptives among sexually active men.⁹ Education and the number of children are predictors of contraceptive use in men in Nigeria.¹⁰ Levels of knowledge and education are predictors of vasectomy contraceptive use in Ethiopia.¹¹

A study in Indonesia explores contraception utilization from the female perspective. It aims to reduce the burden of unwanted pregnancy. The determinants of modern contraception utilization among women are widely used. However, the male perspective about contraceptive utilization must be considered, not only as partners but also as individuals with reproductive history and desires of their own. Several studies have also explored contraceptive utilization determinants in men but use cross-section data.¹² Comprehensive data are needed to describe the patterns of using male family planning methods in Indonesia. The present study uses time-series data, which can help provide good health policies to expand male family planning membership. It also aims to analyze the trends and determinants of family planning utilization among men in Indonesia.

METHODS

Study design

IDHS data (2007–2017) were used; specifically, the 2007, 2012, and 2017 waves. The IDHS survey is conducted

every five years with the aim of obtaining population and public health information with estimates up to the provincial level. It is conducted jointly by the Central Statistics Agency (Indonesian Statistics), BKKBN (Indonesian National Population and Family Planning Agency), and the Ministry of Health of Indonesia. The Government of Indonesia provides the survey funding. The United States Agency for International Development also lends help in conducting the survey. In the IDHS survey, a two-stage stratified sampling method is used and designed to present national- and provincial-level estimates. Data can be accessed from <http://dhsprogram.com/data/new-user-registration.cfm>.

Sample

The population study was all men aged 15–49 years in 34 provinces in Indonesia who were successfully interviewed by the IDHS team. The total sample was 27,998 (total number from IDHS 2007, 2012, and 2017) married men; 8,730, 9,226, and 9,903 in the 2007, 2012, and 2017 waves, respectively. The sample was selected on the basis of inclusion and exclusion criteria.

Variables

We used family planning utilization as the independent variable. Our dependent variables were level of education, age, media exposure, type of residence, economic status, and number of living children. The explanations of these variables are provided in Table 1.

TABLE 1. Descriptions and coding of variables

Variable	Description and Coding
Family planning utilization	Respondent's acknowledgment of family planning utilization. This variable is divided into two categories: 1 if the respondent is using contraception (condoms, vasectomy, and withdrawal), 0 if the respondent is not using contraception.
Level of education	Education refers to the respondent's acknowledgment of the last education completed. This variable is divided into three categories: 0 if low (not attending school, not completing primary school, and completing primary school), 1 if secondary (completing junior high school and senior high school), and 2 if high (completing college).
Age	The age variable is divided into two categories: 1 if the respondent is > 37 years and 0 if the respondent is ≤ 37 years.
Media exposure	It is divided into two categories: 1 if the respondent receives information about family planning on television, radio, and newspaper or has received information messages by phone within the last six months, 0 if the respondent never received information about family planning on television, radio, newspaper.
Type of residence	It is divided into two categories: 1 if the respondent lives in an urban area, and 0 if the respondent lives in a rural area.
Economic status	Economic status is divided on the basis of the wealth index calculation. Wealth index is a composite measure of a household's cumulative living standard. The wealth index is calculated using easy-to-collect data on the household ownership of selected assets, such as televisions and bicycles, materials used for housing construction, type of water access, and sanitation facilities. This variable is divided into five categories (i.e., 4 if richest, 3 if rich, 2 if middle, 1 if poor, and 0 if poorest).
Number of living children	This variable is divided into two categories: 1 if the respondent has four or more children, and 0 if the respondent has less than four children.

Data analysis

Our data analysis was performed by using univariate, bivariate, and multivariate analysis. The variables were first summarized with descriptive statistics in percentage. Given that all of the variables were categorical, the chi-square test was conducted to select variables related to family planning utilization. Then, multivariate logistic regression models were used to adjust the predictors of family planning utilization among males. The analyses were completed using the statistical package SPSS 23.0 for Windows. This study passed the ethics review of the Ethics Review Center of the Faculty of Public Health, Sriwijaya University, with registration number 081/UN9.FKM/TU.KKE/2021.

RESULTS

Family planning utilization among men in Indonesia increased from 2007 to 2017. In 2007, the percentage was 3.7%. In 2017, family planning utilization among men in Indonesia increased to 5.6%, showing an increase of 1.9%.

Family planning utilization methods include condoms, vasectomy, and withdrawal. Condom use in men increased; in 2007, the percentage was 1.8%, then in 2017, a 1% increase was observed. Hence, the percentage of condom use among men in Indonesia in 2017 was 2.8%. The percentage of withdrawal also increased. The highest

increase that occurred from 2012 to 2017 was 1.2%. In contrast to condom use and withdrawal, the percentage of male sterilization from 2007 to 2017 decreased; In 2007, it was 0.5%; in 2017, the percentage decreased by 0.3%. Therefore, the percentage of male sterilization in Indonesia in 2017 was 0.2%.

Table 2 presents the characteristics of the respondents. Almost all respondents are > 37 years old, have secondary education, have no media exposure, and have < 4 number of living children.

Table 3 shows that education, age, media exposure, type of residence, and economic status significantly correlate with family planning utilization among men in Indonesia ($p < 0.05$).

Table 4 presents that the most influential factor, as seen from the most significant Adjusted Prevalence Ratio (PR) value, is education. The results of the multivariate analysis show that the influence of education can be observed from the (PR, which is 2.822 (Confidence Interval (CI) 2.129–3.741). That is, men with high levels of education have a 2.8 times higher chance of utilizing family planning than men with low levels of education after controlling by other factors (age, media exposure, economic status, and type of residence).

TABLE 2. Characteristics of the respondents

Variable	2007		2012		2017	
	n	%	n	%	n	%
Level of Education						
Higher	797	9.1	1,104	12.0	1,258	12.7
Secondary	3,644	41.7	4,395	47.6	5,084	51.3
Primary	4,289	49.2	3,727	40.4	3,561	36.0
Media Exposure						
Yes	1,562	17.9	1,797	19.5	1,443	14.6
No	7,168	82.1	7,429	80.5	8,460	85.4
Age						
> 37 years	5,743	65.8	6,082	65.9	6,982	70.5
≤ 37 years	2,987	34.2	3,144	34.1	2,921	29.5
Type of Residence						
Urban	3,712	42.5	4,709	51.0	4,860	49.1
Rural	5,018	57.5	4,517	49.0	5,043	50.9
Economic Status						
Richest	1,874	21.5	1,857	20.1	2,045	20.6
Rich	1,707	19.6	1,947	21.1	2,149	21.7
Middle	1,784	20.4	1,994	21.6	2,041	20.6
Poor	1,694	19.4	1,854	20.1	1,976	20.0
Poorest	1,671	19.1	1,574	17.1	1,692	17.1
Number of Living Children						
≥ 4	1,581	18.1	1,346	14.6	1,183	11.9
< 4	7,149	81.9	7,880	85.4	8,720	88.1

TABLE 3. Analysis family planning utilization among men

Variable	Yes		No		N	p	PR (95% (CI))
	n	%	n	%			
Level of Education							
Higher	323	10.2	2,836	89.8	3,159	0.000	4.636 (3.645–5.897)
Secondary	667	5.1	12,456	94.9	13,123		2.181 (1.782–2.669)
Primary	278	2.4	11,299	97.6	11,577		Ref
Media Exposure							
Yes	385	8.0	4,417	92.0	4,802	0.000	2.092 (1.759–2.488)
No	883	3.8	22,174	96.2	23,057		Ref
Age							
> 37 Years	912	4.9	17,895	95.1	18,807	0.012	1.237 (1.048–1.459)
≤ 37 Years	355	3.9	8,697	96.1	9,052		Ref
Type of Residence							
Urban	846	6.4	12,434	93.6	13,280	0.000	2.204 (1.842–2.638)
Rural	421	2.9	14,158	97.1	14,579		Ref
Economic Status							
Richest	441	7.6	5,336	92.4	5,777	0.000	3.164 (2.402–4.167)
Rich	303	5.2	5,500	94.8	5,803	0.000	2.109 (1.601–2.779)
Middle	250	4.3	5,568	95.7	5,818	0.000	1.719 (1.291–2.290)
Poor	149	2.7	5,375	97.3	5,524	0.693	1.062 (0.789–1.428)
Poorest	126	2.5	4,811	97.5	4,937		Ref
Number of Loving Children							
≥ 4	179	4.4	3,931	95.6	4,110	0.616	0.949 (0.774–1.164)
< 4	1,088	4.6	22,660	95.4	23,748		Ref

PR: Prevalence Ratio; CI: Confidence Interval

TABLE 4. Final model multivariate analysis

Variable	p	PR (95% (CI))
Level of Education		
Higher	0.000	2.822 (2.129–3.741)
Secondary	0.000	1.737 (1.393–2.167)
Primary		Ref
Media Exposure		
Yes	0.001	1.339 (1.096–1.635)
No		Ref
Age		
> 37 years	0.001	1.278 (1.070–1.527)
≤ 37 years		Ref
Type of Residence		
Urban	0.000	1.627 (1.345–1.969)
Rural		Ref
Economic Status		
Richest	0.018	1.437 (1.066–1.937)
Rich	0.066	1.308 (0.982–1.743)
Middle	0.109	1.274 (0.947–1.712)
Poor	0.605	0.924 (0.686–1.246)
Poorest		Ref

PR: Prevalence Ratio; CI: Confidence Interval

DISCUSSION

This study aims to analyze the trends and determinants of family planning utilization among married men in Indonesia. It reveals that family planning utilization among men in Indonesia increased from 2007 to 2017. The Indonesian government continues to strive, so that male family planning participation can increase by overcoming the factors causing the low male family planning participation. The government also increases the budget for family planning services for men. However, this coverage is still lower than that indicated in a study in Bangladesh, where 40% of men are found to be active about partners' reproductive healthcare.¹³

Moreover, the present study shows that education is the most dominant factor affecting family planning utilization among married men in Indonesia. Men with high levels of education have a 2.8 higher chance to utilize family planning than men with low levels of education, in line with a study in Turkey arguing that education has a positive relationship with family planning utilization. Men with high levels of education have a high chance of taking advantage of family planning.¹⁴ Another research in Ethiopia indicates that men with high levels of education

are 1.4 times more likely to use contraception than men with low levels of education.⁹ Other studies also suggest that men with low levels of education have a 40% lower chance of using family planning methods than men with high levels of education.⁹

Level of education is one of the most important and influential factors of family planning utilization. It allows a person to absorb information and understand and apply it in daily behavior. Education can make someone better or worse depending on the understanding, accuracy of application, and the level of someone who is used to understanding and learning something.

Another factor that affects family planning use in married men is media exposure. We find that men exposed to media have a 1.3 times higher chance of utilizing family planning than men not exposed to media. This finding is in line with a study in Ghana revealing the relationship between exposure to mass media (newspaper and television) and contraceptives. Specifically, respondents who read newspapers almost every day have a high likelihood of using modern contraceptives.¹⁵ Another research conducted in Kenya, Senegal, and Nigeria states that media exposure (radio, television, and other mass media) can influence family planning programs for men.¹⁶ It can happen because information about family planning can influence the knowledge of a person through the communication processor obtained through the media. Communication media usually makes advertisements to convey information. The information source impacts someone's attitude toward the message he has received.¹⁷ According to another study on communications programming in Bangladesh, Ghana, Honduras, Guatemala, Pakistan, India, Vietnam, Burkina Faso, Tanzania, and Nicaragua, media exposure, such as that to social media, can create national conversations that address sociocultural barriers to men's contraceptive use. Social media is a rising force that can be harnessed to connect men to information and services, as seen in Facebook by WINGS in Guatemala to publicize vasectomy availability. Social marketing can challenge social norms and help overcome barriers to the acceptability of contraceptive use among men.¹⁸ In another work, most men are reported to have heard about family planning from the radio. Some efforts have been exerted to use media (radio, television, and print ad) to increase family planning decision making and use positive results.¹⁹

Age is also known as one of the factors affecting family planning utilization. This study indicates that older adults have a 1.2 times higher chance of utilizing family planning than young adults. Other works also reveal a significant relationship between contraception use and age (of men). Men aged > 37 have a 1.1 times higher chance of using contraceptives than men aged < 37 years.¹⁴ Another research states that vasectomy frequency in men is higher in those aged > 35 years.²⁰ A study in Ethiopia also shows

that men aged > 40 have a higher likelihood of using contraceptives than men aged < 39 years.²¹ Other studies in the US show that during the 2003–2014 period, the percentage of family planning users nearly doubled, with the most consistent increases occurring between men aged 20–29 and ≥ 30 years.²² A study in Senegal reports that men in their prime reproductive years (aged 25–35) more likely use contraception than men aged 15–24.²² Previous studies showed that the best age to rarefy childbirth for women is 20–35 years. Husbands' desire to use contraception based on age and marital status suggests that older age and marital status affect contraceptive acceptance.¹⁴

Another factor related to family planning utilization is the type of residence. We reveal that men living in urban areas are 2.2 times more likely to utilize family planning than men living in rural areas. A previous study reported that men who live in urban areas are two times more likely to use modern or traditional contraceptives than men who live in rural areas.²³ Research conducted in Kenya also showed significant differences in contraceptive use between men living in urban and rural areas.⁹ Another study reported that men living in rural areas are 0.83 times less likely to use condom contraceptives than men living in urban areas.²⁴ Moreover, a IDHS report indicates that contraception use (e.g., condoms) is significantly higher among men in urban areas than in rural areas.^{24–25} Type of residence is one of the main problems of accessing health services, including family planning services. Limited facilities and health workers in rural areas can affect family planning utilization, impacting men's decision making to utilize family planning.

Economic status is also known to be a factor influencing family planning use. This study shows that men with a high economic/richest status have a 3.1 times higher chance of utilizing family planning than their counterpart. Research conducted in the US reveals that one of the main barriers to contraception for low-income men and men of color is financial accessibility.²⁶ Another research finds that men who belong to the richer and richest wealth quintile have a higher likelihood of using modern contraceptives than those who belong to the poorest quintiles.²⁷ Research in Uganda also states that economic status is one factor that influences contraceptive use in men.²⁸ It can happen because modern contraceptive use may involve some financial obligations on the part of users, particularly when such services are inaccessible or service providers are at distant locations from the residence of users who intend to utilize them.²⁹ Urban areas tend to develop faster than rural ones do, especially in the health sector.³⁰ Other than that, geographic barriers may be an issue for poor users, which are difficult to address.³¹

Our findings provide a clear target for policy makers. Education is the most influencing factor of family planning

utilization among men. Governments must extend the coverage of family planning utilization through educational information dissemination, counseling and seminars, the Internet, and other media to increase information and awareness about family planning utilization.

The limitation of this study is the cross-sectional survey; therefore, identifying the causal mechanisms of family planning utilization among men and its risk factors is difficult. Despite its limitation, this study has strengths. We use multiyear data and a large, nationally representative sample from a population-based survey, which covers every province in Indonesia.

CONCLUSIONS

Factors that influence family planning utilization among married men are age, media exposure, education, economic status, and type of residence. Education is the most influencing factor of family planning utilization. Increasing knowledge of family planning information has a significant influence decision to utilize family planning among men. Such an increase can be achieved through educational information dissemination, counseling and seminars, the Internet, and other media to increase information and awareness regarding family planning utilization.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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