

Challenges of Male Contraceptive Uptake in Indonesia: Opinion of Married Couples

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Received: November 11, 2020 Accepted: January 26, 2021 Online Published: February 8, 2021

doi:10.5539/gjhs.v13n3p81

URL: <https://doi.org/10.5539/gjhs.v13n3p81>

Abstract

For more than a decade, the adoption of male contraceptive methods in Indonesia was very low compared to female methods. Yet, in some settings family planning programs focused heavily on female contraceptive services, while male contraceptive services tend to be ignorant. Information from both husbands and wives is needed to obtain an accurate understanding of contraceptive use-behavior within married-couples. Hence, the objective of this study is to investigate factors associated with male contraceptive use among Indonesian couples. This study uses the couple-matched data from the 2017 Indonesia Demographic and Health Survey (IDHS). The analytical sample included 8,427 couples. Chi-square tests and binary logistic regression models were utilized for data analysis. Findings from the bivariate and binary logistic regressions indicate that couples lived in urban areas, couples who attained secondary and higher education, couples who do not want another child, couples who discuss family planning with their spouses, and couples whose wives experienced side effect of female contraception were significantly associated with male contraceptive uptake among Indonesian couples. The results suggest that increasing male contraceptive uptake should be encouraged through spousal communication about family planning.

Keywords: male contraception, family planning, contraception uptake

1. Introduction

Male family planning methods are a cost-effective strategy for reducing high-risk pregnancies, decreasing unwanted pregnancies and preventing maternal and infant mortality. Despite advances in male contraceptive technology and availability, from the early 1980s up to now, contraceptive use in Indonesia has been dominated by female methods (i.e. oral pill, injections, intrauterine device, implant, tubectomy, female condom) than male methods (i.e. male condom, vasectomy, withdrawal and the rhythm method) (Central Bureau of Statistics (BPS), National Family Planning Coordinating Board, Ministry of Health, The Demographic and Health Surveys Program, & Macro International, 1991). It is estimated that one male compared to 12 females utilize contraception in Indonesia (BKKBN, BPS, Kementerian Kesehatan RI, & USAID, 2018). The vasectomy use remains steady at 0.2% during 2007-2017 while the male condom use had slightly increased from 1.3% in 2007 to 1.2% in 2017 (Badan Pusat Statistik, Badan Koordinasi Keluarga Berencana Nasional, Kementerian Kesehatan, & Macro International, 2008; BKKBN et al., 2018). At the same time, the proportion of female methods utilization had increased from 55.7% in 2007 to 55.9% in 2017 (Badan Pusat Statistik et al., 2008; BKKBN et al., 2018).

In general, studies on contraceptive use has relied on the woman's perspective. Although some studies have investigated men's involvement in family planning decisions (Adelekan, Omoregie, & Edoni, 2014; Clark, Yount Mon, & Roachat, 2008; Zakaria & Bhuiyan, 2016), the focus on women of most contraceptive studies suggests that men are not really considered to be part of the contraceptive practice (Balde et al., 2016; Le Guen, Ventola, Bohet, Moreau, & Bajos, 2015). The perspective of men regarding family planning should also be measured not only as women's opinion but also as independent individuals with different reproductive organs, histories, and needs (Le Guen et al., 2015). Family planning surveys should interview both females and males to explore the characteristics, knowledge, attitude, and practices of family planning between two different individuals (Becker & Costenbader, 2001; Becker, Fonseca-Becker, & Schenck-Yglesias, 2006). Either the husband or the wife may not truly know his or her partner's sexual and family planning needs (Irani, Speizer, & Fotso, 2014).

In order to inform the delivery of male family planning services, it is important to understand the factors and

characteristics that contribute to a male's decision to use contraception. Some researchers argued that the place of residence may influence the male contraceptive services since most of the health providers tend to stay in urban areas (Ntoimo & Chirwa-Banda, 2017; Ochako, Temmerman, Mbondo, & Askew, 2017). The others suggest male contraceptive use depends on the couples' age (Ochako et al., 2017), the couples' educational attainment (Eeckhaut, 2018; Le Guen et al., 2015), couples' fertility preference (Ntoimo & Chirwa-Banda, 2017), spousal communication on family planning matters (Cynthia, 2011; Shattuck et al., 2011), and side effect of female contraceptive methods (Irawaty & Rafani, 2021).

Various studies on contraceptive behavior have been conducted in Indonesia but most have focused on a female viewpoint (Joesoef, Baughman, & Utomo, 2015). Limited studies have given attention to couples' contraceptive behavior in Indonesia, particularly with regard to male contraceptive use. Couple data can provide a better understanding of contraceptive behavior than single data relating to one partner only (Becker, 1996). This study raised a research question: why did the adoption of male contraceptive methods in Indonesia is very low compared to female methods particularly from a married couples' perspectives in Indonesia. Hence, the objective of this study is to investigate factors associated with male contraceptive use based on the male and female viewpoints as matched-couples.

2. Method

2.1 The Secondary Data

Data are drawn from the 2017 Indonesia Demographic and Health Survey (IDHS). This survey is a nationally representative household survey in Indonesia conducted every 5 years (BKKBN et al., 2018). Based on a multi-stage stratified random sampling technique, the 2017 IDHS conducted face-to-face interviews among the ever-married women and men in the 47,963 selected households (BKKBN et al., 2018). A total of 49,627 women of reproductive age (15–49 years) participated in the survey, yielding a response rate of 97.4% (BKKBN et al., 2018). Moreover, the male participants comprised a subsample of the sampled households, with 10,009 men aged 15–54 years interviewed from every second household with a response rate of 95.9% (BKKBN et al., 2018). In the 2017 IDHS, women and men are interviewed separately in selected households, allowing the matching of partner information and analyses of couples. This study downloaded the couple-matched-dataset from the DHS program website (IDCR71FL) and weighted by male weighted variables (MV005) (USAID, 2020). The weighted sample size was all 8,925 couples who were currently married or cohabiting. The data collection and sampling procedure have been described in detail elsewhere (Croft, Marshall, & Allen, 2018; Rutstein & Rojas, 2006; USAID, 2012). The inclusion criteria were the selected IDHS respondents who are registered as married couples and those married respondents who have complete information on all variables of the study's interest. Furthermore, the exclusion criteria of this study were those couples who reported as pregnant or 498 couples. Thus the sample of this study was 8,427 currently married couples.

2.2. Outcome Variable

The outcome variable is the current use of contraceptives reported by the husband. The male respondents were also asked this question "What method are you or your partner use?" The outcome variable was classified as a binary variable of whether male respondents were currently using any male contraceptive method at the time of the survey or not. The respondents were classified as users of the male method if they were using any of the following methods: male condoms, vasectomy, withdrawal, and the rhythm method. The outcome variable was classified as users of the female method if they were using any of the following methods: oral pill, injections, intrauterine device, implant, tubectomy, or female condom.

2.3 Key Explanatory Variables

A number of explanatory variables have been selected on a priori studies. These include the socio-demographic characteristics of the study subjects, particularly of the couples' place of residence, couples' age, the couples' educational attainment, couples' fertility preference, spousal communication on family planning issue, and side effect of female contraceptive methods. The variable of couples' place of residence was asking the respondents whether they live in (0) urban or (1) rural areas during the survey was conducted. The couples' age difference was assessed by asking the respondents how old they were on their last birthday. The couple's age was given value (0) if both husband and wife were aged 35 or older, (1) if both husbands and wives' age were in the range of 15–34 years, and (2) if the husbands and wives were in different age groups. Another socio-demographic factor included in the analysis was the couples' educational attainment, which was assessed by asking the respondents the highest level of school they have attended (no education, primary, secondary, or above). Afterward, the couples' educational attainment was classified as (0) both secondary and higher, (1) both primary and no schooling, (3)

different educational level.

The couples' fertility preference was assessed by asking the respondents would they like to have (another) child or would you prefer not to have anymore. The couples' fertility preference was classified as (0) both husbands and wives do not want more children, and (1) either husbands or wives or both of them want more children. Spousal communication on family planning issues was assessed by asking the male respondents if he had discussed the practice of family planning with his wife in the last six months before the survey conducted. The variable of spousal communication was classified as (0) ever communicate, and (1) never communicate. The side effect of female contraceptive methods' variable was measured by asking the female respondent whether she experienced any health problems in using a current contraceptive method (yes or no).

2.4 Statistical Analyses

Descriptive and bivariate statistical analyses were performed to identify the association between the dependent variable current use of contraceptive reported by the husband and the selected explanatory variables (i.e. the couples' place of residence, couples' age, the couples' educational attainment, couples' fertility preference, spousal communication on family planning issue, and side effect of female contraceptive methods). Binary logistic regression was conducted because of the dichotomy nature of the dependent variable: current contraceptive use, reported by husbands (using female contraceptive or using male contraceptives). The significance level was established at $p < 0.05$ with a corresponding 95% confidence interval.

2.5 Ethical Consideration

This study does not contain access to personal data or any confidential information. Procedures and questionnaires for 2017 IDHS survey had been reviewed and approved by the ICF International Institutional Review Board (IRB), and the survey protocols have been reviewed by the ICF IRB, the Indonesian Ministry of Health, and Badan Kependudukan dan Keluarga Berencana Nasional for the protection of human subjects, in compliance with Indonesia's laws and norms.

3. Results

3.1 Characteristics of Respondents

Table 1 set out the socio-demographic characteristics of the Indonesian couples, based on the 2017 IDHS data. Table 1 shows that the proportion of couples using female methods is much higher than male methods, 92.7% compared to 7.3%. Table 1 also shows that about 51.7% of the couples live in rural areas, while 48.3% of the couples live in urban areas.

Table 1. Sample characteristics of couples in Indonesia, 2017 (n = 8,427)

Characteristics	N	%
Current contraceptive use		
Female method	7,814	92.7
Male method	613	7.3
Residence		
Urban	4,074	48.3
Rural	4,353	51.7
Couples' age		
Both more than 35 years old	4,638	55.0
Both 15-34 years old	1,496	17.8
Different age groups	2,293	27.2
Couples educational attainment		
Both secondary and higher	4,449	52.8
Both primary and no schooling	2,025	24.0
Different educational level	1,953	23.2

Couples' fertility preference		
Both not want another child	5,394	41.3
Either one or both want another child	3,033	36.0
Spousal communication on family planning		
Ever communicate	4,071	48.3
Never communicate	4,356	51.7
Side effect of female contraception		
Yes	728	8.6
No	7,699	91.4

Source: Authors' calculation.

As revealed in Table 1, the older age groups appeared to have a higher proportion of married couples, 55% in the age group of above 35 years, compared to 17.8% in the 15 to 24 years' age group. Moreover, only 18.9% of couples were in different age groups. Couples who attained secondary or higher education accounted for 52.8%, followed by couples who attained primary education or no schooling (24.8%). Nearly 23% of couples had different educational attainment (either secondary/higher or primary/no schooling). About 41.3% of couples did not want more children while 36% of couples want more children. Only 48.3% of couples had ever communicated about family planning with their spouses. Most of the couples had never experienced side effects of female contraception (91.4%) and only 8.6% of couples had experienced side effects of female contraception.

Table 2. Bivariate and Logistic Regression Predicting Male Contraception Use in Indonesia, 2017 (n = 8,427)

Variables	Category	Contraceptive use		OR	95% CI	p-value
		Female method	Male method			
Place of residence	Urban	3,674 (47.0%)	399 (65.1%)	1.6	1.3-1.9	0.00
	Rural (ref)	4,139 (53.0%)	214 (34.9%)			
Couples' age	Both more than 35 years	4,293 (54.9%)	345 (56.3%)	0.8	0.6-1.0	0.08
	Both 15-34 years	2,145 (27.5%)	147 (24.0%)	0.8	0.6-1.0	0.07
	Different age groups (ref)	1,376 (17.6%)	121 (19.7%)	2.4	1.9-3.1	0.00
Couples education	Both secondary and higher	3,990 (51.1%)	459 (74.9%)	0.8	0.6-1.1	0.13
	Both primary and no schooling	1,956 (25.0%)	69 (11.3%)			
	Different educational level (ref)	1,868 (23.9%)	85 (13.9%)			
Couples fertility preference	Both don't want more children	5,061 (64.8%)	333 (54.3%)	0.6	0.5-0.7	0.00
	Either one or both want more children (ref)	2,753 (35.2%)	280 (45.7%)			
Spousal communication on family planning	Yes	3,713 (47.5%)	358 (58.4%)	1.4	1.2-1.7	0.00
	No (ref)	4,100 (52.5%)	255 (41.6%)			
Side effect of female contraception	Yes	724 (9.3%)	4 (0.7%)	0.06	0.02-0.1	0.00
	No (ref)	7,090 (90.7%)	609 (99.3%)			

Data presented as Odd Ratio (95% CI). Statistically significant at $p < 0.05$.

The bivariate analysis on the differences between those who had used contraception, reported by the husbands, and the explanatory variables are presented below (Tables 2). Table 2 shows that the proportion of couples using male methods is much higher in urban areas than in rural areas, 65.1% compared to 34.9%. The occurrence of male contraceptive adoption is higher amongst those older couples in the age group of more than 35 years rather than those couples in the age group of 15-34 years (56.3% compared to 24.0%). Having secondary and higher education

levels positively correlated with adopting male methods, 74.9% compared to 11.3% of those with primary or no schooling education levels. Awareness on adopting male contraceptive methods higher among those couples who do not want any more children, compared to those couples who want more children (54.3% to 45.7%). Those couples who discuss family planning with their spouses have a higher likelihood of adopting male contraceptive methods, 58.4% compared to 41.6%. Additionally, male contraceptive use was higher among couples whose wives had never experienced side effect of female contraceptive methods compared to those couples whose wives ever experienced side effect of contraceptive methods (99.3% to 0.7%). This clearly indicates that Indonesian married couples need a greater education regarding more effective modern contraceptives that are available to them.

Results of logistic regression analysis (Table 2) also indicated that respondents lived in urban areas, couples who attained secondary and higher education, couples who do not want another child, couples who discuss family planning with their spouses, and couples whose wives experienced side effect of female contraception, were predictors of adopting male contraceptive methods. Couples who attained secondary and higher education was the highest predictor (OR of 2.4) of adopting male contraceptive methods. The other confounding variable is place of residence. Couples living in urban areas were more likely to use male contraceptive methods than couples living in rural areas [1.6 (95% CI, 1.3-1.9)]. The odds of male contraceptive use increased when both husbands and wives discussed family planning issues with each other [1.4 (95% CI, 1.2-1.9)].

4. Discussion

The aim of this study was to investigate factors that influence male contraceptive use among Indonesian couples based on the 2017 IDHS. The final model of logistic regression revealed that those couples lived in urban areas, couples who attained secondary and higher education, couples who did not want another child, couples who discussed family planning with their spouses and couples whose wives experienced side effect of female contraception had higher probabilities to use male contraceptive methods than others.

The study has suggested that couples who live in urban areas are more likely to use male contraceptives methods than those couples who live in rural areas. This finding echoes similar findings from Ochako et al. (2017) in Kenya that men from rural areas were less likely to use male methods compared to their urban counterparts. Access to vasectomy and condoms are generally easier in urban areas where health clinics and pharmacies are plenty than in rural areas. Furthermore, withdrawal and periodic abstinence needs men's control during their sexual intercourse (Ortayli, Bulut, Ozugurlu, & Çokar, 2005) is perhaps favorable among the more educated husbands (Kulczycki, 2004). In contrast, a study in Nigeria found that rural men held the negative perception that contraception is women's business which leads to a significant impact on family planning demand and uptake (Adanikin, McGrath, & Padmadas, 2017)

Among social-economic-demographic variables, education seems to have the largest effect to male contraceptive use especially among couples who both having secondary and higher education. The large effect of education on male contraceptive adoption is associated with the role of education in empowering couples to make rational decisions and understand that it is possible to control fertility using contraceptive methods (Duze & Mohammed, 2006). Men with higher levels of education might be more likely to encounter the dominant norm of family planning as a female business (Greene & Biddlecom, 2000) by practicing more individual involvement in using male or cooperative contraceptive methods (Le Guen et al., 2015).

This study showed that couples who want to stop childbearing had significant association to male contraceptive use. This study confirms the findings from study of Baschieri et al. (2013) that male contraceptive use is the highest when both partners state a desire to stop childbearing. When there was disagreement between spouses on fertility desire for more children, the probability of male contraceptive use decreased significantly (Baschieri et al., 2013). However, discordance on fertility preference between spouses should not be ignored by policy makers since men's reproductive preferences and desires may constitute a major challenge to family planning program success (Bankole & Ezeh, 1999; Ezeh, Seroussi, & Ruggers, 1996)

Furthermore, it was evidence from the findings that couples' communication in the last six months was found to be highly associated with the adoption of male contraception. Couples who communicate family planning are having greater odds to adopt a contraceptive method because there are a mutual understanding and preference regarding the decision of contraceptive method (Balde et al., 2016; Irawaty & Pratomo, 2019). Inter-spousal communication about family planning matters also reflects the inclusion of men in family planning matters within a family and potentially negotiate reproductive choices together which leads to contraceptive adoption (Shakya et al., 2018). Couples may directly or indirectly influence each other's fertility preferences during the course of their relationship thus it may increase men's probabilities to initiate contraceptive use (Irawaty, Yasin, & Pratomo, 2020; Yeatman & Sennott, 2014)

The result of this study also found that those couples whose wives experienced side effect of female contraceptive methods was significantly important in influencing male contraceptive use. Side effects of modern family planning methods, either experienced or anticipated, have been identified as a common reason that women either choose not to start or discontinue contraceptives (Schrumphf et al., 2020). Side effects of contraception include heavier menstrual bleeding (Chen et al., 2020), oligomenorrhea (He et al., 2020), obesity (Simmons & Edelman, 2016), headaches (Hellier, 2013), and nausea (Rodriguez, Godfrey, Warden, & Curtis, 2013). Certain side effects of female contraception will always be considered unacceptable for some women, making their husbands play a further role in family planning options (Shattuck, Perry, Packer, & Quee, 2016; Shattuck et al., 2014). A study in Bangka Belitung Islands also confirmed the result that side effect of female contraceptive use is one of substantial factors related to male contraceptive adoption in the Islands (Irawaty & Rafani, 2021).

This study has limitations. Firstly, 2017 IDHS did not provide information related to the perception of contraception and approval of family planning from a woman's viewpoint. Secondly, the 2017 IDHS does not provide couples' weight; therefore, the IDHS team suggested that the male-weighted variable be used to weight the data (Croft, Marshall, & Allen, 2018). Thirdly, the 2017 IDHS consists of cross-sectional data all of which were collected during the same period.

5. Conclusion

To conclude, this study reveals how a couple-approach can deliver an alternative viewpoint on contraceptive use behaviors. Family planning programs need to consider the role of men in influencing contraceptive behaviors of couples. Findings from this analysis are important for reconstructing future family planning program activities that seek to engage men and bring them to the table as equal partners in contraceptive adoption and continuation. As results from this study, program activities should be tailored not just by family planning promotion but also by encouraging spousal communication on family planning issues. It is these types of couple-comprehensive programming that are likely to be the most successful in reducing unintended pregnancy and unmet need in Indonesia.

Acknowledgments

The study was supported by Badan Kependudukan dan Keluarga Berencana Nasional.

Data Availability Statement

Open access data.

Competing Interests Statement

The authors declare that there are no competing or potential conflicts of interest.

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