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Family Planning Communication between Wives and Husbands: Insights from the 2017 Indonesia Demographic and Health Survey

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Abstract

Frequent inter-spousal communication is regarded as an indicator of safe family planning practice. Nevertheless, communication on family planning within couples in Indonesia is still largely unexplored. This study assessed the levels of inter-spousal communication on family planning and its associated determinants, using cross-sectional and nationally representative data from the 2017 Indonesia Demographic and Health Survey, from a randomly selected cohort of 8,925 currently-married couples. Data on sociodemographic characteristics, inter-spousal communication behaviors, and attitudes regarding family planning were collected. The dependent variable in this study was wives' responses to how frequently couples discuss family planning. The level of inter-spousal communication on family planning was classified into: never, once or twice, or more frequent. The determinants of the study were region, marital duration, couples' fertility preference, wife's exposed family planning message on television, wife's health problem due to contraception, wife's discussed family planning with doctor, nurse/midwives, or field worker, husband's exposed family planning with field worker, husband's approval and couples' contraceptive use. The analyses were stratified based on the frequency of inter-spousal communication: never, once or twice, or more frequent. There was a greater husband's approval of family planning and communications with family planning field workers, and that those encouraged inter-spousal communication in Indonesia.

Keywords: family planning, Indonesia, inter-spousal communication

Introduction

Most developing countries, such as Indonesia, still have male-dominated cultures. However, family planning and contraception are still considered as women business only.¹ Numerous challenges prevent husbands and wives from discussing reproduction, family planning, sexuality, and contraception issues, due to a complex web of social and cultural barriers.²⁻⁴ In most cultures, communicating sexual matters has been a taboo subject for men and women.^{5,6} Furthermore, husbands and wives are often afraid of being refused by their sexual partner.⁷ Most wives are willing to discuss family planning matters only if the subject is initiated by their husbands.^{8,9}

Family planning communication between husbands and wives is considered by experts to be among the most important precursors in a rational fertility decision-making process, particularly from a family perspective.^{10,11} Family planning communication is a crucial basis for joint decision-making, in the process of learning about each other's knowledge, attitudes, and practices.¹² Mutual decision-making about reproductive health, fami-

ly planning, sexual desires, fertility preference, and other couples issues is more conducive to mending power imbalances within relationships.^{11,13,14} Family planning communication between husbands and wives is also crucial when it comes to lowering the desired number of children and increasing the use of contraceptives.¹⁵

Family planning communication also enables husbands and wives to discuss their anxieties about reproductive health, such as about unintended pregnancies, contraception side effects, and sexually transmitted diseases (STDs).⁷ In contrast, when husbands and wives do not know their partners' fertility preferences, attitudes toward family planning, or contraceptive preferences, the consequences can be myriad, ranging from unintended pregnancies, to unsafe abortions and STD transmission.^{7,15}

Even though many studies related to family planning have focused solely on men or women, decisions regarding reproduction do not lie exclusively on one side, but rather with both spouses.¹⁶⁻¹⁸ Both women and men should share equally their roles and responsibilities for

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rather with both spouses.¹⁶⁻¹⁸ Both women and men should share equally their roles and responsibilities for achieving mutual pleasure and avoiding reproductive illnesses. The need for men to be involved in reproductive health and family planning should be considered, based on men's roles as reproductive and sexual partners. Thus, matched-couple data is crucial in reproductive health studies.^{18,19}

Indonesia has been chosen as the setting of this analysis of inter-spousal communication for three reasons. First, during the last decade, modern methods of contraceptive use in Indonesia remained relatively stagnant. The contraceptive prevalence rate from 2007 remained at 57% in 2017.²⁰ Secondly, the unmet need of family planning in Indonesia did not significantly decrease in that time; it was 13.1% in 2007 and 11% ten years later.²⁰ Lastly, little is known about the extent of husband-wife communication about family planning in Indonesia. Therefore, this study aims to explore that issue by using the couple dataset derived from the 2017 Indonesia Demographic and Health Survey.

Method

This study used couple data from the latest Indonesia Demographic and Health Survey (IDHS) from 2017. There were two types of IDHS's questionnaires utilized in this study: woman's questionnaire to gather information from 8,925 selected wives and man's questionnaire to collect information from 8,925 selected husbands. This study obtained 10 informations available from the wives responses, consisted of: (1) frequency of spousal communication; (2) the region that wives lived; (3) marital duration; (4) the wives' couple fertility preference; (5) the exposure of wives from family planning message on television; (6) the wives' health problem due to contraception; (7) the wives' discussion with doctors regarding family planning; (8) the wives' discussion with nurses/midwives related to family planning; (9) the wives' discussion with family planning health workers; (10) approval of their husbands on family planning issues; and (9) the wives' reports on current contraceptive use. Furthermore, this study utilized four questions from the husbands, consisted of: (1) the region that he lived; (2) marital duration; (3) the husbands' fertility preferences and (4) the husband's report on current contraceptive use.

The population of this study was all Indonesian couples who were formally married. The samples were married couples—the women aged 15–49, the men aged 15–59—who had been successfully interviewed by the Indonesia Demographic and Health Survey team.²¹ The study was restricted to 8,925 wives and 8,925 husbands. The advantage of using the couple dataset was to control for husbands and wives' characteristics associated with

inter-spousal communication.^{7,8,22} The sample weights associated with the husbands were used in all analyses, since male respondents constituted just one-third of the women respondents.²⁰

The dependent variable in this study was the frequency of couples discussing family planning with each other versus family planning decisions based on the wives' responses. The measure of inter-spousal communication about family planning was collected from the question, "How often did you talk to your husband/partner about family planning in the past year?". It is a trichotomous variable (never, once or twice, and often). Responses of the husbands were acknowledged for the discussion with family planning field workers. The wives' responses were also utilized for variables related to health problem due to contraception, husbands' approval, discussion about family planning with doctors, nurses, or midwives, and family planning field workers. The region, marital duration, fertility preferences, and contraceptive use were grouped to create couple variables.

The region was grouped into the Java–Bali Province and outside Java–Bali Provinces. The marital duration was divided into two categories: more than 15 years, and less than 14 years. Couples' fertility preferences fell into three categories: both wanting another child, either one wanting another child, and neither wanting another child. Couples' exposure to family planning messages via television was categorized into ever exposed and never exposed. Responses about family planning discussions with doctors, nurses, midwives, or family planning field workers were divided into two categories—yes and no—as were health problems. Husband's approval of family planning was classified as approved or disapproved. Contraceptive use by couples was divided into both, or either one using a modern method, or both not using modern methods.

Three stages of statistical analysis were applied for the quantitative method. The initial stage was a univariate analysis to reveal the distribution of variables. The second stage was bivariate analysis (cross-tabulation and chi-square statistics) to test for the significance of the association between dependent and independent variables at a 95% level of significance.²³ Multinomial logistic regression was performed due to the trichotomy of dependent variables to estimate the relationship between the predictor variables and outcomes, reporting the Adjusted Odds Ratio (AOR) and 95% Confidence Interval (CI).²⁴

Results

The results of this study revealed that more than 50% of Indonesian couples had never discussed family planning with their spouses, either in Java–Bali Provinces or outside Java–Bali Provinces (Table 1). The percentage of couples who had longer marital duration declared less

frequent in communicating family planning with their husbands than those couples who just married less than 14 years. The percentage of Indonesian couples who declared their opposition to another child and never communicated with each other about family planning matters were relatively similar to those couples where either one wanted another child or both still wanted another child. Those couples whose wives had been exposed to family planning information through television had higher correlations on the percentage of inter-spousal communication related to family planning than couples who had never been exposed to family planning information through television.

Table 1 also shows that couples whose wives had experienced health problems admitted more frequent inter-spousal communication than couples who had never experienced health problems. The percentage of inter-spousal communication on family planning matters was much higher for couples who had met with family planning field workers rather than couples who only discussed family planning matters with nurse and midwives. The percentage of inter-spousal communication was still low among couples whose husbands decided the family planning matters. There were 71,4% of those non-contraceptive-users-couples who declared that they had never communicated family planning issues with their husbands.

Table 2 shows the results of multinomial logistic regression. Husbands who approved of family planning to-

ward communicating family planning once or twice might affect their communication 5.44 times more frequently than husbands who disapproved. Compared with no communicating couples, as revealed in Table 2, couples whose husbands approved of family planning were 4.48 times more likely to discuss more frequently, compared to couples whose husbands disapproved of family planning.

Table 2 also reveals that couples who use modern contraceptive method were 2.10 times more likely to communicate family planning with their spouses once or twice than couples who did not use a modern method. Finally, Table 2 shows that couples who utilized modern contraceptive method were 2.02 times more likely to communicate about family planning than those couples who do not use a modern method.

This study also found that a husband's and wife's discussion with family planning workers was a significant variable for inter-spousal communication. Compared with the no communicating couples, those whose husbands discussed with family planning workers were 1.5 times more likely to communicate with each other once or twice than couples whose husbands did not talk with family planning workers. Couples whose wives talked with family planning workers were 1.4 times more likely to discuss family planning once or twice in a year than couples whose wives did not talk with family planning workers.

Couples whose wives discussed family planning with

Table 1. The Percentage of Inter-Spousal Communication's Frequency based on Selected Characteristics of Couples, Indonesia, 2017

Variable	Category	Percentage (%) of Inter-Spousal Communication's Frequency on Family Planning (N = 8,925)			
		Never	Once or twice	More often	p-value
Region	Java-Bali Provinces	52.9	39.0	8.0	0.000
	Outside Java-Bali Provinces	58.1	34.1	7.7	0.000
Marital duration	More than 15 years	60.9	32.7	6.4	0.001
	Less than 14 years	49.5	41.1	9.3	0.001
Couples fertility preference	Both not want another child	58.6	34.4	7.1	0.000
	Either one wants another child	55.3	38.4	6.3	0.000
	Both want another child	51.4	39.1	9.5	0.000
Wife's exposed FP message on television	Ever exposed	51.1	40.0	9.0	0.003
	Never exposed	68.0	27.6	4.4	0.003
Wife's health problem due to contraception	Yes	32.1	54.1	13.7	0.002
	No	57.0	35.6	7.4	0.002
Wife discusses FP with doctor	Yes	33.3	50.1	16.6	0.000
	No	56.4	36.2	7.3	0.000
Wife discussed FP with nurse/midwives	Yes	37.0	15.9	49.0	0.000
	No	60.8	6.0	33.2	0.000
Wife discuss FP with FP field worker	Yes	36.5	47.6	15.9	0.000
	No	56.4	36.3	7.3	0.000
Husband exposed FP with FP field worker	Yes	41.9	47.6	10.5	0.000
	No	56.8	35.7	7.5	0.000
Husband's approval	Approved	50.3	41.0	8.6	0.000
	Disapproved	86.4	10.6	3.0	0.000
Couple's contraceptive use	Both or either one using modern method	46.6	44.1	9.3	0.001
	Both not using modern method	71.4	23.3	5.2	0.001

Notes: Source: Calculated from the 2017 IDHS dataset; FP: Family Planning

Table 2. The Result of Multinomial Logistic Regression Predicting Inter-Spousal Communication in Indonesia, 2017

Variable	Category	Once or Twice vs Never			More Often vs Never		
		AOR	Sig.	95% CI	AOR	Sig.	95% CI
Region	Java-Bali Provinces	1.13	.019	[1.02-1.24]	1.01	.933	[0.85-1.19]
	Outside Java-Bali Provinces (ref)	1.00			1.00		
Marital duration	More than 15 years	0.72	.000	[0.64-0.81]	0.70	.001	[0.57-0.86]
	Less than 14 years (ref)	1.00			1.00		
Couples fertility preference	Both do not want another child	0.68	.000	[0.60-0.78]	0.61	.000	[0.49-0.76]
	Either one wants another child	0.82	.005	[0.72-0.94]	0.57	.000	[0.45-0.73]
	Both want another child	1.00			1.00		
Wife's exposed FP message on television	Ever exposed	-1.59	.000	[1.41-1.78]	2.06	.000	[1.63-2.61]
	Never exposed	1.00			1.00		
Wife's health problem due to contraception	Yes	1.40	.000	[1.17-1.68]	1.58	.001	[1.21-2.07]
	No	1.00			1.00		
Wife discusses FP with doctor	Yes	1.61	.000	[1.30-1.99]	2.04	.000	[1.52-2.72]
	No	1.00			1.00		
Wife discusses FP with nurse or midwives	Yes	1.78	.000	[1.58-2.01]	2.46	.000	[2.03-2.97]
	No	1.00			1.00		
Wife discusses FP with FP officer	Yes	1.40	.001	[1.14-1.71]	1.81	.000	[1.37-2.40]
	No	1.00			1.00		
Husband discusses FP with FP officer	Yes	1.54	.000	[1.33-1.79]	1.52	.001	[1.19-1.92]
	No	1.00			1.00		
Husband's approves FP	Approved	5.44	.000	[4.42-6.70]	4.48	.000	[3.08-6.53]
	Disapproved	1.00			1.00		
Couple's contraceptive use	Both or either one using modern method	2.10	.000	[1.87-2.35]	2.02	.000	[1.64-2.49]
	Both not using modern method	1.00			1.00		

Notes: Source: Calculated from the result of 2017 Indonesia Demographic and Health Survey; FP: Family Planning; Ref: Reference Category; AOR: Adjusted Odds Ratio; CI: Confidence Interval; Level of significance at p-value < 0.05.

nurse/midwives were almost twice as likely to communicate with their spouses once or twice than wives who did not communicate with nurse/midwives. Furthermore, wives who discussed family planning with nurse/midwives were 2.5 times more likely to communicate with their spouses than wives who did not discuss it with nurse/midwives. Compared to noncommunicating couples, wives who discussed family planning with their doctor were 1.6 times more likely to communicate with their spouses than wives who did not do that. Couples who were exposed to family planning messages from television were 1.6 times more likely to communication once or twice with their spouses than couples who were never exposed to those TV messages. Finally, couples whose wives experienced health problems due to contraception were 1.4 times more likely to communicate family planning once or twice than couples whose wives who had not experienced it.

Discussion

Lack of inter-spousal communication occupies a central role in models of marital relationship deterioration, just as intimate bonds are believed to remain strong to the extent that partners respond with sensitivity to one another.²⁵ Poor communication had been found as the most commonly cited reason why couples did not seek any contraceptive-related services.²⁵

This study provides detailed information on the fre-

quency of couples who communicate about family planning by categorizing the dependent variables into three categories (never, once or twice, and often). The three categorizations have been made because the frequency of inter-spousal communication about family planning is one of the least researched areas in the field of family planning. Ideally, couples should communicate about family planning before marriage, in order to avoid possible dyad conflicts. More frequent communications between couples may lead to increased understanding and healthier relationships in all aspects of married life, not just family planning. Nevertheless, this study did not delve into further analysis of what kinds of topics those couples might discuss, or whether they would pertain to fertility preferences, contraception, or other family planning issues.

The findings of this study, as revealed in Table 1, showed that approximately one-half of Indonesian couples never discuss family planning matters with their spouses. In addition, Table 2 shows that a husband's approval of family planning predicted the greatest odds of inter-spousal communication. It may also be true that no communicating couples feel insecure when talking about sexual intercourse or contraception because it violates their social norms of modesty and privacy concerning sexual matters.²⁶ Wives are less likely to initiate a dialog about family planning and sexual activity because they tend to feel shyness and distressed at provoking their hus-

bands due to the sensitivity of those issues.²⁷

Inter-spousal communication was found to be high among Indonesia couples living in Java–Bali. They tended to have been exposed to family planning from television, and the husbands approved of it. The wives had experienced health problems due to contraception, discussed family planning with family planning field workers, doctors, nurses, or midwives, and used modern contraceptive methods (p-value < 0.001). Inter-spousal communication appears to have been relatively weak outside the Java–Bali Provinces compared to the Java–Bali Provinces. This could be attributed to the welcoming reception to family planning services in the Java–Bali areas.²⁸

This study also found that marriages of shorter marital durations were more likely than longer marriages to talk about family planning. This is probably because the child-bearing decisions are more relevant to them.^{2,8} Another reason is due to the tendency for couples with longer marital duration may have long ago agreed on their fertility method(s).²⁹ Behavioral theory also supported these findings to posit that marital distress is also a consequence of poor family planning communication, arguing that “distress results from couples’ aversive and ineffectual responses to conflict”.²⁵

Overall, half of the couples who did not want any children and those couples who did want another child stated that they had never communicated about family planning in the last 12 months. The finding correlates with a Pakistani study that found men to be more interested in discussing how to space out the children rather than limiting their number.²³

This study also found that a higher proportion of inter-spousal communication was recorded among couples who had been exposed to family planning messages on television. Television is known as the most popular media among Indonesians.³⁰ It is also recognized as a tool for developing the gradual initiation of spousal communication about family planning and forming an individual’s reproductive attitude and behavior.³¹ Communications campaigns through television may provide information for couples that can promote further informed discussion.³²

The results of multinomial logistic regression in this study show that the incidence of health problems resulting from contraception use can encourage inter-spousal communication. A study in Tanzania showed that the effect of ongoing health issues experienced by wives can inspire couples to discuss whether to switch methods or discontinue them altogether.³³ Health issues that may occur consequent to contraceptive use include fatigue, weight gain, missed menses, or excessive menstrual bleeding.³³

Multinomial logistic regression results also emphasize the essential role of family planning field workers for

both husbands and wives. The Indonesian Government has assigned family planning field workers for educating, training, and supervising family planning at the village level. Family planning field workers then become the go-to people for providing initial information on family planning as well as motivation for every eligible couple to use contraception.³⁴ This role makes them more familiar and trusted by the village couples.³⁴ Both husbands and wives who receive information about contraception from family planning field workers tend to use contraceptives.³⁴

The exposure to health workers can also keep family planning on the couple’s agenda for further discussion. That can be a means of exchanging practical information about family planning services, availability, side effects, costs, as well as dislodging misbeliefs about particular contraceptive methods.³⁵ Health workers may better encourage reproductive couples about health development, especially in the establishment of family planning that involves men’s participation for contraceptive use.³⁶ Health workers can provide convincing and reliable information or counseling to wives about contraception that can be used to motivate their husbands regarding contraceptive use.³⁷

Husbands’ approval is one of the intrinsic factors influencing inter-spousal communication. In Indonesia, the husband’s position as the family head places him as the central household decision-maker.^{38,39} Men are expected to be involved in deciding whether or not to participate in contraceptive use, which can be completed by deliberation. Wives’ encouragement is key to motivating their husbands’ participation in the adoption of contraceptives.^{40,41}

This study also shows that the use of modern contraceptive methods by couples increases the probability of inter-spousal communication. Family planning communication between husbands and wives is strongly associated with deflating anti-contraceptive rumors.⁴² Inter-spousal communication is recognized as a key factor in the adoption and sustained use of family planning.^{4,10} These findings are supported by prior research in rural Nepal that found the use of contraception encouraged couples to more actively discuss between themselves information regarding contraceptive methods. As a result, the use of male contraceptive methods also increased.⁴³

The strength of this study is that it dealt with a large sample size from a nationally representative IDHS data set. However, it also had several limitations. First, the amount of information available to measure family planning communication between husbands and wives was inadequate. Only one question related to spousal communication on family planning—“How often did the husbands and wives talk about family planning in the past year?”—was asked. Secondly, this study relied entirely on

wives' responses to family planning communication with their husbands which might introduce errors of underreporting. Thirdly, this paper doesn't provide longitudinal effect of inter-spousal communication on family planning matters.

Conclusion

In sum, most of the Indonesian couples had never discussed family planning issues with their legal partners. Long-term married couples reported less family planning communication than the other married couples due to distressed married life. There was no huge difference on family planning communication between couples who still want another child and couples who did not want another child. This study also revealed that television had been found as one of popular media among Indonesian couples which could stimulate wives to discuss family planning with their husbands. Furthermore, those couples whose wives had already experienced health problems due to contraception tend to communicate family planning matters with their husbands more frequent than the other couples. More broadly, this study highlighted that health providers (doctors, nurses/midwives, family planning field workers had) had played major roles to stimulate family planning communication among Indonesian couples. The present findings also point to the importance of husband's approval on the intensity of inter-spousal communication about family planning matters. Fully understanding the nature of the linkages between inter-spousal communication related to family planning and modern contraceptive use thus requires assessing these variables repeatedly over time in order to adequately develop the inter-link models of these variables.

Abbreviations

IDHS: Indonesia Demographic and Health Survey; STDs: Sexually Transmitted Diseases; CI: Confidence Interval; AOR: Adjusted Odds Ratio; FP: Family Planning; Ref: Reference Category

Ethics Approval and Consent to Participate

This study obtained an ethical clearance number 686/UN2.F10/PPM.00.02/2018 (assigned on September 17th, 2018) from the Faculty of Public Health, Universitas Indonesia. Informed consent was obtained from all participants. All identifications in the questionnaires were excluded from the study to ensure confidentiality and privacy.

Competing Interest

Author declares that there are no significant competing financial, professional, or personal interests that might have affected the performance or presentation of the work described in this manuscript.

Availability of Data and Materials

Data and materials of this study can be accessed on <https://dhsprogram.com/data/available-datasets.cfm>.

Authors' Contribution

Dian Kristiany Irawaty conceived of the presented idea and manuscript writing. Suziana Mat Yasin developed the theory and performed the computations. Hadi Pratomo supervised the findings of the work. All authors discussed the results and contributed to the final manuscript.

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References

1. Adanikin AI, McGrath N, Padmadas SS. Impact of men's perception on family planning demand and uptake in Nigeria. *Sex Reproductive Healthcare*. 2017; 14: 55–65.
2. Schuler SR, Rottach E, Mukiri P. Gender norms and family planning decision-making in Tanzania: a qualitative study. *Journal of Public Health Africa*. 2011; 2 (2): 102–7.
3. Mishra A, Nanda P, Speizer IS, Calhoun LM, Zimmerman A, Bhardwaj R. Men's attitudes on gender equality and their contraceptive use in Uttar Pradesh India. *Reproductive Health*. 2014; 11 (41): 1–13.
4. Withers M, Dworkinbe SL, Zakarasc JM, Ononod M, Oyierd B, Cohence CR, et al. 'Women now wear trousers': men's perceptions of family planning in the context of changing gender relations in Western Kenya. *Culture Health and Sexuality*. 2015; 17 (9): 1132–46.
5. Withers M, Dworkin S, Onono M, Oyier B. Men's perspectives on their role in family planning in Nyanza Province, Kenya. *Studies in Family Planning*. 2015; 46 (2): 201–15.
6. Gayathry D, Reddy MR, Rammana BV. Evaluation of husband–wife communication regarding family planning among the couple of reproductive age group in the field practice area of Prathima Institute of Medical Sciences, Karimnagar. *International Journal of Community Medicine and Public Health*. 2018; 5 (6): 1–5.
7. Islam MA, Padmadas SS, Smith PWF. Understanding family planning communication between husbands and wives: a multilevel analysis of wives' responses from the Bangladesh DHS. *Genus*. 2010; 66 (1): 1–15.
8. Irawaty DK, Pratomo H. Socio-demographic characteristics of male contraceptive use in Indonesia. *Malaysian Journal of Public Health Medicine*. 2019; 19 (1): 152–7.
9. Etukudo IW. Spousal approval, communication and contraceptive behaviour in rural Nigeria. *African Journal of Midwifery and Women's Health*. 2014; 9 (4): 170–5.
10. Stein P, Willen S, Pavetic M. Couples' fertility decision-making. *Demographic Research*. 2014; 30 (1): 1697-732.
11. Raine TR, Gard JC, Boyer CB, Haider S, Brown BA, Hernandez FAR, et al. Contraceptive decision-making in sexual relationships: young men's experiences, attitudes and values. *Culture Health Sex*. 2010; 12 (4): 373-86.
12. Irawaty DK, Pratomo H. Spousal communication on family planning and contraceptive adoption in Indonesia. *Indian Journal of Public*

- Health Research & Development. 2019; 10 (3): 359–68.
13. Raut MK. Interpersonal communication and contraception: insights and evidences from Bangladesh demographic and health survey, 2011. *Indian Journal of Public Health*. 2015; 59 (3): 220–4.
 14. Asa UA, Nikan VV, Okoro GI. Spousal communication and contraceptive use among married couples in rural areas of Akwa Ibon State, Nigeria. *Journal of Educational and Social Research*. 2018; 8 (1): 51–7.
 15. Kamal SMM, Islam MA. Interspousal communication on family planning and its effect on contraceptive adoption in Bangladesh. *Asia Pacific Journal of Public Health*. 2012; 24 (3): 506–21.
 16. Pearson E, Becker S. Couple's unmet need for family planning and application to three West African Countries. *Studies in Family Planning*. 2014; 45 (3): 339–59.
 17. Balogun O, Adeniran A, Fawole A, Adesina K, Aboyeji A, Adeniran P. Effect of male partner's support on spousal modern contraception in a low resource setting. *Ethiopian Journal of Health Science*. 2016; 26 (5): 439–48.
 18. Grady WR, Klepinger DH, Billy JOG, Cubbins LA. The role of relationship power in couple decisions about contraception in the US. *Journal of Biosocial Science*. 2010; 42 (3): 307–23.
 19. Koffi AK, Adjiwanou VD, Becker S, Olaolorun F, Tsui AO. Correlates of and couples' concordance in reports of recent sexual behavior and contraceptive use. *Studies in Family Planning*. 2012; 43 (1): 33–42.
 20. Badan Kependudukan Keluarga Berencana Nasional, Badan Pusat Statistik, Kementerian Kesehatan Republik Indonesia, USAID. *Indonesia demographic and health survey (survei demografi dan kesehatan Indonesia) 2017*. Jakarta: BKKBN, BPS, Kementerian Kesehatan RI dan USAID; 2018.
 21. Croft TN, Marshall AMJ, Allen CK. *Guide to DHS statistics: DHS-7*. Rockville, Maryland: ICF; 2018: 1.8–1.9.
 22. Memmi S, du Lou AD, Grieve M. Gender relations and contraceptive practices of Palestinian couples. *Population*. 2015; 70 (2): 273–308.
 23. El-Habil AM. An application on multinomial logistic regression model. *Pakistan Journal of Statistics and Operation Research*. 2012; 8 (2): 271–91.
 24. Garson GD. *Logistic regression: binary & multinomial*. Statistical Associates Publishing. 2014; pp. 1–25.
 25. Lavner JA, Karney BR, Bradbur TN. Does couples' communication predict marital satisfaction, or does marital satisfaction predict communication?. *Journal of Marriage and Family*. 2016; 78 (3): 680–94.
 26. Lasee A, Becker S. Husband-wife communication about family planning and contraceptive use in Kenya. *International Family Planning Perspective*. 1997; 23 (1): 15–33.
 27. Shattuck D, Kerner B, Gilles K, Hartmann M, Ng'ombe T, Guest G. Encouraging contraceptive uptake by motivating men to communicate about family planning: the Malawi male motivator project. *American Journal of Public Health*. 2011; 101 (6): 1089–95.
 28. Irawaty DK, Arifin EN. Men involvement in contraceptive adoption in Indonesia. In: RC06-VSA International Conference. Hanoi: Vietnam Sociological Association (VSA); 2019.
 29. Shahjahan M, Mumu SJ, Afroz A, Chowdhury HA, Kabir R, Ahmed K. Determinants of male participation in reproductive health-care services: a cross-sectional study. *Reproductive Health*. 2015; 10: 27.
 30. Ardiansyah B. Effect of mass media on family planning choices in Indonesia; 2016.
 31. Mahmood H, Khan Z, Masood S. Effects of male literacy on family size: a cross sectional study conducted in Chakwal City. *Journal of the Pakistan Medical Association*. 2016; 66 (4): 399–403.
 32. Westoff CF, Koffman DA. The association of television and radio with reproductive behavior. *Population and Development Review*. 2011; 37 (4): 749–59.
 33. Chebet JJ, McMahan SA, Greenspan JA, Mosha IH, Callaghan-Koru JA, Killewo J, et al. "Every method seems to have its problems" - perspectives on side effects of hormonal contraceptives in Morogoro Region, Tanzania. *BMC Womens Health*. 2015; 15 (1).
 34. Kurniawan UK, Pratomo H, Bachtiar A. Performance in the Indonesian family planning guidance: guidelines for performance effectiveness testing in the era of decentralization. *Kesmas: Jurnal Kesehatan Masyarakat Nasional*. 2010; 5 (1): 3–8.
 35. Hardee K, Croce-Galis M, Gay J. Are men well served by family planning programs?. *Reproductive Health*. 2017; 14 (14).
 36. Kabagenyi A, Jennings L, Reid A, Nalwadda G, Ntozi J, Atuyambe L. Barriers to male involvement in contraceptive uptake and reproductive health services: a qualitative study of men and women's perceptions in two rural districts in Uganda. *Reproductive Health*. 2014; 11 (1): 21.
 37. Kabagenyi A, Ndugga P, Wandera SO, Kwagala B. Modern contraceptive use among sexually active men in Uganda: does discussion with a health worker matter?. *BMC Public Health*. 2014; 14 (286).
 38. Kornrich S, Brines J, Leupp K. Egalitarianism, housework, and sexual frequency in marriage. *American Sociological Review*. 2015; 78 (1): 26–50.
 39. Musrizal YH. Vasectomy intention among married males in Indonesia. *Journal of Health Research*. 2015; 29 (3): 203–9.
 40. Ezeanolue EE, Iwelunmor J, Asaolu I, Obiefune MC, Ezeanolue CO, Osuji A, Ogidi AG, Hunt AT, Patel D, Yang W, Ehiri, JE. Impact of male partner's awareness and support for contraceptives on female intent to use contraceptives in Southeast Nigeria. *BMC Public Health*. 2015; 15 (879).
 41. Prata N, Bell S, Fraser A, Carvalho A, Neves I, Nieto-Andrade B. Partner support for family planning and modern contraceptive use in Luanda, Angola. *African Journal of Reproductive Health*. 2017; 21 (2): 35–48.
 42. Harzif AK, Prana V, Santawi A, Wijaya S. Discrepancy in perception of infertility and attitude towards treatment options: Indonesian urban and rural area. *Reproductive Health*. 2019; 16 (126).
 43. Link CF. Spousal communication and contraceptive use in rural Nepal: an event history analysis. *Studies in Family Planning*. 2011; 42 (2): 83–92.