

# Factors associated with ever used of modern contraception among married men attending a primary healthcare clinic

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## ABSTRACT

**Background:** The practice of modern contraceptives still remains a sceptical issue in the society and dormant due to increasing objection of husbands who play a significant role in the family planning practice.

**Objectives:** This study was done to determine the factors affecting the ever use of modern contraceptive methods among married men visiting a healthcare clinic in Malaysia.

**Material and method:** A cross sectional study of 443 men aged over 18 years was conducted using convenient sampling from January 2016 till March 2016 at a primary care clinic. A self-administered questionnaire assessing socio-demographic characteristic, attitude towards family planning, spousal communication and ever used of modern contraceptive methods was used.

**Results:** The proportion of ever used modern contraception was 48% (n=192).

Multiple logistic regression revealed that spousal communication on family planning (Adjusted OR 15.8; 95% CI 7.0 – 35.6) and attitude towards marital relationship (Adjusted OR 1.1; CI 1.0 – 1.1) were significant predictors for ever used of modern contraception among married men. **Conclusion:** The proportion of ever used modern contraception is still not high. Men who communicated with their spouse on modern contraception and perceived family planning as means to preserve their marital relationship were more likely to practice modern contraceptive method.

## KEY WORDS:

*Married men – attitude of family planning – spousal communication – ever used modern contraception*

## INTRODUCTION

Over the past decade, there has been a rapid increase in the population in Asian countries, leading to multiple social issues such as poverty, poor health and education. Consequently, it affects the quality of family, community and developmental process of a country. Therefore, the World Health Organization (WHO) has strongly recommended the family planning practice be implemented particularly in the developing countries.

Family planning is a process of using basic knowledge, attitude and responsible decision by an individual or couples to practice contraception and promote health of the family. It allows a couple to well-plan their family size and the desired number of children.<sup>1</sup> World Health Organizations (WHO) declared that family planning is an important step to reduce maternal mortality by allowing women to delay motherhood, avoid unintended pregnancies and abortions.<sup>2,3</sup> Furthermore, by practicing family planning, women will have more opportunity to be employed and able to support their children and families. This in turn will bring a positive impact to the community and country. Modern contraception such as oral contraceptive pills, intra-uterine contraceptive device (IUCD), condom, injectable hormone, Implanon, and tubal ligation are known effective methods of family planning.<sup>4</sup>

Recently, researches in Asian countries have investigated cause of failure of the family planning programmes. One of the most crucial factors is lack of husband's involvement in the programme. It is important to take note that in Asia, the man is still the main decision maker and has the authority to decide on matters involving the wife including family planning and the use of contraception.<sup>5,8</sup> This has been emphasized by studies that show that the husband's opposition is the main reason for not practicing family planning.<sup>9,11</sup> A local study also highlighted that there has been an increasing trend of husband's objection from 8% in 1994 to 12.6% in 2004.<sup>12</sup> It is possible that there will be a reduction in the contraceptive use and the benefit of family planning would not be achieved if immediate actions are not taken to address this issue.

Previous reports have documented that among the important factors leading to the use of contraception are higher socio-economic status,<sup>13,14</sup> positive attitude towards family planning and communication between the couple.<sup>15,16</sup> These studies were conducted in other Asian countries and local studies on this matter are still very limited. In this study, the attitude of family planning was assessed by a self-administered questionnaires and the number of items vary. However, Odimegwu et al had developed a 26-item questionnaire which has six domains consisting of attitude towards family well-being, health benefit of family planning, female education and early marriage, marital relations, societal values and men's role in family planning.<sup>17</sup>

This article was accepted: 9 August 2018

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Other studies also showed that men tend to support their partners' use of contraception if they have good information and communication regarding family planning.<sup>15,18-19</sup> It may be concluded that spousal communications resulted in better decision and understanding on the advantages and disadvantages of contraceptive method and hence a shared decision on the choice of contraceptive methods.

The current study was performed among married men to assess the usage of modern contraception and its association with socio-demographic characteristics, attitude of family planning and spousal communication. We hope that this study will provide important information on the local men's view of family planning and their usage of contraception.

## MATERIALS AND METHODS

This was a cross sectional study conducted from January 2016 until March 2016 at a semi-urban primary healthcare clinic in the state of Selangor, Malaysia. The study participants were conveniently sampled. Married men aged 18 years and above, who were waiting to be seen by a doctor or were accompanying their family members were invited to participate in the study. Based on the sample size formula calculation using Kish L. 1965 with the prevalence of spousal communication was 60%<sup>20</sup> and absolute precision = 5%, 369 participants were needed. Considering 20% dropout, a total of 443 samples were required for this study and informed consent was taken. Those who are mentally ill, illiterate and have medical emergency conditions were excluded.

The study involved the use of a self-administered questionnaire in two languages, Malay and English and consists of four sections. The first section was the socio-demographic characteristics including age, ethnicity, religion, level of education, employment status and household income. The second section, participants were asked whether he or his wife had ever used any modern contraception before. The third section was whether the participants had discussed with their spouse about contraception and who made the decision for its use. The last section of the questionnaire assessed the attitude towards family planning. The questionnaire was adapted from Odimegwu CO and permission to use was obtained.<sup>17</sup> The original instrument contains of 26 items and has six domains which are a) family well-being and family planning, b) health benefits of family planning, c) female education and early marriage d) marital relations e) societal values and f) men's role in family planning.

The questionnaire had been reviewed by a panel of experts to ensure its suitability and relevance in our local setting. One domain (female education and early marriage which consist of 3 items) was removed as it was not suitable for the local culture. Hence, the final attitude questionnaire consists of 23 items only. Subsequently, the 23-item English questionnaire had gone through the forward and backward translation process to Malay and English version.

The scoring for the final 23 attitude items was done using Likert Scale which ranges from one (strongly disagree) to five (strongly agree). Reverse coding was done for 5 negative

attitude statements (item 17 to 21). A total score was calculated for all items as well as for each domain. Mean scores were calculated for the 5 domains with higher mean score indicating favourable attitude.

Prior to the actual study, face validation was conducted among 10 men (5 for Malay and 5 for English version) to determine clarity and understanding of the final questionnaire. Later, a pilot study was done with 44 men (22 in English and 22 in Bahasa Malaysia) to determine the reliability of the questionnaire. The Cronbach's alpha for both version was good (Malay: 0.92 and English 0.89). The actual data collection was carried out by the researcher. Every eligible participant was given an information sheet and after obtaining a written consent, the self-administered questionnaire was distributed.

Data entry was performed manually and statistical analysis was done using SPSS software version 23. Initial data exploration was done including descriptive statistics and frequency distribution for normality and presence of outliers. Simple logistic regression was done to determine the association between the use of contraception and socio-demographic characteristics, spousal communication and attitude of family planning. Multiple logistic regressions using forward and backward stepwise method controlling for each variable was performed. Multicollinearity in multiple regressions was also checked. The associations of independent variables with ever used of modern contraception among men were expressed as odds ratios (ORs) with 95% confident intervals (CI). A statistical probability level of  $p < 0.05$  was considered significant.

This study was approved by the Medical Research and Ethics Committee of the University Kebangsaan Malaysia (FF-2015-374) and Ministry of Health. Permission was also obtained from state and district level (Selangor State Health Department and Hulu Langat District Health Office).

## RESULTS

A total of 443 men were invited but 32 men had to be removed due to exclusion criteria and eight refused to participate. Three questionnaires were incomplete and hence, were removed. Finally, 400 questionnaires were analyzed. Table I demonstrates socio-demographic characteristics, proportion of ever used of contraception and proportion that had spousal communication.

The mean age of the participants was high 46 years old ( $\pm 12.17$ ) with the age range between 24 to 74 years old. The proportion of ever used modern contraception among married men was 48% ( $n=192$ ). The most widely used method was condom 62.5% meanwhile sterilization was the least method used with 4.7%. Most of participants have ever discussed with wife about family planning (78.8%) and reported that the decision for family planning was a shared decision (76.5%).

Pertaining to the attitude towards family planning, the mean total score for the total attitude questions were 86.16 (13.36) as shown in Table II.

**Table I: Socio-demographic, ever used of modern contraception and spousal communication characteristics in this study**

Variables	Mean (SD)	Median (IQR)	N = 400 (%)
Age (years)		45.7 (12.17)	
Race:	Malay		294 (73.5)
	Chinese		39 (9.8)
	Indian		52 (13.0)
	Others		15 (3.8)
Religion:	Islam		301 (75.3)
	Hindu		38 (9.5)
	Buddhist		27 (6.8)
	Christian		28 (7.0)
	Others		6 (1.5)
Level of education:	None		5 (1.3)
	Primary		11 (2.8)
	Secondary		226 (56.5)
	Tertiary		158 (39.5)
Employment:	Not working		62 (15.5)
	Working		338 (84.5)
Household total income (RM)		3500 (3000)	
Ever used modern contraception	Yes		192 (48)
	No		208 (52)
Spousal Communication	Yes		315 (78.8)
	No		85 (21.3)

**Table II: Attitude of married towards family planning**

Domain	Item (Number of items)	Range of Total Score	Mean (SD)	Range of participants score
A:Family well-being and planning	D1-D4 (4)	Min:4 Max:20	15.48 (3.22)	Min:4 Max:20
B:Health benefits of family planning	D5-D10 (6)	Min:6 Max:30	22.19 (4.31)	Min:9 Max:30
C:Marital relations	D11-D21 (11)	Min:11 Max:55	41.13 (6.35)	Min:22 Max:55
D:Societal values	D22 (1)	Min:1 Max:5	3.57 (1.01)	Min:1 Max:5
E:Men's role in family planning	D23 (1)	Min:1 Max:5	3.80 (1.05)	Min:1 Max:5
Total Attitude	D1-D23 (23)	Min:23 Max:115	86.16 (13.36)	Min:49 Max:115

The highest mean score in comparison with the maximum score was Domain A (family well-being and planning). This showed that men who believe practicing family planning can help them to be responsible, improve their children’s education level and family standard living have the most favourable attitude towards practicing modern contraception.

**Factors associated with ever used modern contraception**

Simple logistic regression showed that age, race, religion, spousal communication and all domains in family planning are significantly associated with ever used of modern contraception as shown in Table III. In order to determine these variables impact, the background variables were controlled in the logistic regression model. The odds ratios for each variable in relative to the reference category for ever used modern contraception was analyzed using multiple logistic regression as shown in Table IV. The model fit well and assumptions were met. There were no interaction and multicollinearity problems.

It was demonstrated that the ever used modern contraceptive method was positively associated with family planning attitude in Domain C (marital relations) and spousal communications. It was revealed that married men who had spousal communication regarding modern contraception were about sixteen times more likely to ever used modern contraception than men who does not communicate with their spouse.

Similarly, a significant association was found between attitude in domain marital relations and ever used modern contraceptive methods whereby with every 1 unit increment of score in that domain, there will be increase of 1.1% ever used modern contraception among married men. This domain described that men who care, love their wife and family tend to practice modern contraception. In this study, the logistic regression model variables were estimated to predict approximately 30% of the variance in the delay as was shown by Nagelkerke R square = 0.299. This suggested that there are other important factors influencing the ever used modern contraception among married men such as the number of children.<sup>21</sup>

**Table III: Factors associated with ever used of modern contraception among married men (simple logistic regression)**

Variables	Crude OR (95%CI)	Wald statistic (df)	P value
Age (years)	1.01 (0.99, 1.03)	1.53 (1)	0.216*
<b>Race:</b> Malay	1.00	6.78 (3)	0.079*
Chinese	2.30 (1.13, 4.63)	5.33 (1)	0.021*
India	0.78 (0.43, 1.41)	0.69 (1)	0.408
Others	1.31 (0.46, 3.71)	0.26 (1)	0.611
<b>Religion:</b> Islam	1.00	10.63 (4)	0.031*
Hindu	0.60 (0.30, 1.21)	2.03 (1)	0.154*
Buddhist	3.29 (1.35, 8.00)	6.87 (1)	0.009*
Christian	1.53 (0.70, 3.36)	1.15 (1)	0.284
Others	1.16 (0.23, 5.79)	0.03 (1)	0.865
<b>Level of education:</b> None	1.00	2.01 (3)	0.570
Primary	0.56 (0.06, 5.22)	0.26 (1)	0.613
Secondary	1.45 (0.24, 8.83)	0.16 (1)	0.688
Tertiary	1.40 (0.23, 8.55)	0.13 (1)	0.722
<b>Employment:</b> Not working	1.00		
Working	1.06 (0.62, 1.82)	0.04 (1)	0.834
<b>Household total income (RM)</b>		1.194 (1)	0.275
<b>Spousal Communication:</b> No	1.00		
Yes	2.76 (7.09, 35.48)	45.25 (1)	<0.001*
<b>Attitude Domain A :</b>			
Family well-being and planning	1.08 (1.02, 1.15)	5.94 (1)	0.015*
<b>Attitude Domain B :</b>			
Health benefits of family planning	1.05 (0.99, 1.10)	3.51 (1)	0.061*
<b>Attitude Domain C :</b>			
Marital relations	1.07 (1.04, 1.11)	16.22 (1)	<0.001*
<b>Attitude Domain D :</b>			
Societal values	1.20 (0.98, 1.46)	3.22 (1)	0.073*
<b>Attitude Domain E :</b>			
Men's role in family planning	1.21 (0.99, 1.46)	3.76 (1)	0.053*

\*p < 0.25 are included in the multiple logistic regressions

**Table IV: Factors associated with ever used of modern contraception among married men (multiple logistic regression)**

Variables	Crude OR	S.E.	Wald Statistics (df)	Adjusted OR (95%CI)	P value
Spousal Communication	No Yes	1.00 2.76		1.00 15.80 (7.00,35.63)	<0.001
<b>Attitude Domain C</b>					
Marital relations		0.06	0.018	13.33 (1) 1.07 (1.03,1.11)	<0.001

Note:

**Variable selection:** Forward and backward stepwise Likelihood ratio was chosen. Both methods had similar significant variables.

**The model fit statistics:** 1.The Hoshmer and Lemeshow test 'p' value= 0.875 indicating there is no significant difference between observed and predicted probability, 2.Classification table= 68%, 3.Area under ROC = 0.741

**No interaction between variables:** The 'p' value is 0.909 indicating no significant of interactions between variables.

**Low multicollinearity:** 1. Standard error of regression = Standard error is relatively smaller than regression coefficient, 2. Correlation matrix = 0.05 (very weak), 3. Variance inflation factor (VIF) < 10

**Conclusion:** The model fit well. Model assumptions are met. There are no interaction and multicollinearity problems.

## DISCUSSION

### Use of Modern contraception

The current study was implemented as a response to the nation's effort to improve neonatal and maternal mortality through the family planning programmes under the 5th Millennium Developmental Goal.<sup>22</sup> In this study, nearly half of the participants had either used or allowed their spouse to use modern contraception and this figure is lower compared to other Asian countries. In India and Ethiopia, the ever used contraception reported by men ranged between 62-80%.<sup>17 23</sup> The finding in our study gave us a few possible indications. The modern contraceptive prevalence rate in our community is still low or there is probably lack of awareness of modern contraceptive methods among men. Nevertheless, our study had shown a significant improvement in the uptake of contraception compared to 38% reported from a local study done in 2012.<sup>24</sup>

There was a range of variation in the types of modern contraception used worldwide. Selection of which types of modern contraceptive methods to be used by a couple can be influenced by many factors such as their preference according to their culture, previous experience and belief, maternal health and spouse satisfaction. Based on this study, majority of the participants has widely adopted condom followed by oral contraception pills and Implanon. The least used method among the participants was surgical method which was tubal ligation as this is a permanent method. A different finding was observed in other countries due to the variation between the culture and availability.<sup>14 23 25-26</sup>

### Spousal communication

The current study had proved to us that spousal communication is the strongest predictor for the use of modern contraception. Men who had discussion with their spouse is 16 times more likely to accept the use of contraception compared to those who had not. These findings has been similarly reported by other studies which highlighted the importance of communication between husband and wife that are crucial to the family well-being.<sup>13</sup>  
<sup>14,16,27-29</sup> Majority of our participants admitted to have communication with their wife and reported that the decision on the family planning is shared between them. This shows us that with the era of modernization and information technology, there has been a paradigm shift in the mindset among men in our community.

### Attitude of family planning

Looking into the previous surveys on family planning across different countries, the attitude was assessed mainly through a self-administered questionnaire. However, some of the questionnaires used in these studies were not categorized into domains. In the current study, we evaluated five domains of attitude and overall, in contrary with local studies done 5 and 10 years ago.<sup>26</sup> It is possible that the difference was due to the study setting in which our community clinic is located in a semi-urban area and the participants involved in the study had higher level of education.

Previous research have documented that knowledge is important in changing one's attitude and this is evident in many behavioural theories such as the health belief models,

trans-theoretical model stages of changes and theory for reasoned action.<sup>29,30</sup> In many studies looking into family planning, knowledge was assessed in term of awareness towards modern contraception methods which was high,<sup>14 16,27</sup> but the attitude and practice still remain low.<sup>25</sup> Hence, this suggests to us that the attitude and practice are strongly linked.

The result from the multivariate analysis demonstrated that among all the domains of the attitude, the marital relation is significantly associated with the use of contraception (OR 1.1; CI1.0–1.1). This finding highlighted to us that men valued family planning as a means to preserve the marital ties and strengthen the family. This piece of information is very crucial to attract more men to understand the benefit of family planning and accept the use of modern contraception.

## LIMITATIONS AND RECOMMENDATION

The results of this study cannot be generalized since the samples were conveniently selected and was done in only one health center. Other limitations are the possibility of recall bias as the participants may have forgotten the use of contraception by their wives and self-reporting bias. A similar study involving multiple centers in the country with a better sampling method may give a better result.

## CONCLUSIONS

The proportion of men reported using modern contraception is still not high at 48%. Although the situation is slightly better compared to the past years immediate actions need to be taken. Factors significantly associated with the use of contraception among men are spousal communication and positive attitude towards preserving marital relation.

## IMPLICATIONS TO CLINICAL PRACTICE

Favourable attitude towards family planning and good spousal communications were observed and this study may be used as the strategy to improve family planning uptake in the clinical practice. Realizing the impending benefits of family planning by mutual communication and consent, steps need to be taken to improve the practice of ever used modern contraceptives among couples. The healthcare providers need to take the opportunity and be more proactive in initiating the discussion on family planning when men who accompany their wives during the antenatal and postnatal check-ups.

Supports both from clinical level and state level health organizations are imperative for improving the success of the family planning programme. Campaigns such as 'Do it together' and 'Talk about Family Planning with your partner' seem to be potentially effective to dispel the misconception and increase the positive attitudes, ideas and preference for using the modern contraceptives among the married couples.

## ACKNOWLEDGEMENT

The authors would like to thank the Director General of Health Malaysia and all the lecturers who have supported this study especially from University Kebangsaan Medical Centre.

Acknowledgement is also expressed to all the respondents, staffs in Klinik Kesihatan Batu 9 and Hulu Langat Health District Office. My special gratitude and thanks to the Ministry of Health Malaysia and University Kebangsaan Medical Centre for funding this research. We also declared that there is no conflict of interest.

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