DETERMINING THE PREVALENCE OF FAMILY PLANNING (FP) UTILISATION AND ITS ASSOCIATED FACTORS AMONG ADULTS IN MALAYSIA: AN ONLINE SURVEY

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ABSTRACT

Background: Family Planning (FP) is one of the pillars of Safe Motherhood Program in reducing maternal mortality and morbidity. Despite positive evidence on the benefit of family planning, its utilisation among Malaysian population is still lower than expected. This study aimed to determine the prevalence of family planning utilisation and its associated factors among adults in Malaysia.

Methods: An online survey was conducted involving 402 respondents of Malaysian adults. Convenience sampling was used in recruiting the respondents. Pretested questionnaire was distributed using online google form through various social media platform. Family planning utilisation was defined as the usage of any contraceptive methods (modern or traditional) within the past one year. The independent variables studied were sociodemographic characteristics, knowledge and attitude towards family planning, presence of spousal communication for family planning and accessibility to the service.

Results: Prevalence of FP utilisation was 49.0% with higher percentages noted among female, Malay, age between 24-35 years, married, completed tertiary education, middle income group (M40) and having one to five children. Mean (SD) scores of knowledge (9.01 (2.271) and attitude (42.20 (4.948) towards FP were higher among respondents who utilised FP. The accessibility rate for FP services was 69.9%. Multiple logistic regression analysis showed that predictors for FP utilisation were, high scores of knowledge (P=0.001) and attitude (P=0.026) towards FP, age group of 25-34 (P=0.001) together with 35-50 years old (P=0.001) and having 1 to 5 children in the family (P=0.011).

Conclusion: Family planning utilisation remains low despite easily accessible services. Increasing knowledge, instils positive attitude and targeting towards suitable population are among the crucial elements to be focused in any intervention plans by the relevant authorities.

Keywords: family planning utilisation, family planning determinant, contraception

INTRODUCTION

Family planning initiatives provided benefits towards protecting women's reproductive rights and reduction of unintended pregnancies. It also improved health and nutritional status of children, through adequate birth spacing and reduction in maternal mortality (United Nations, 2019). The Alan Guttmacher Institute, (2002) stated that 45% reduction in infant mortality rate can be achieved when births are 2-3 years apart. There are also non-health benefits of family planning that encompass opportunity on education, empowering women, sustain population growth and improve economic development for countries.

In Malaysia, family planning services has started decades ago and mainly delivered by three main agencies; the Ministry of Health Malaysia (MOH) as the main provider, National Population and Family Development Board (NPFBD) and Federation of Reproductive Health Associations Malaysia (FRHAM). Despite multi-agency initiatives, the uptake of family planning is still low among Malaysian population. The 5th Malaysian Population Study revealed the percentage of Malaysian women who are currently using any methods and modern method of family planning has stagnated at about 52.2% and 34.3% respectively since 1984. The highest age group who used family planning is within the 35-44 age group (National Population and Family Development Board, 2016).

Malaysia is in the lower rank of contraceptives usage in contrast to the Philippines, Singapore, Indonesia, Thailand, and Vietnam (United Nations, 2020). In the year 2010, Rosliza and Majdah revealed the contraceptive prevalence rate of 51.7% among Malaysians and it was relatively low as compared to Thailand, Singapore and Vietnam with the rate of more than 70.0% uptake (Rosliza A.M. & Majdah, 2010). Earlier studies reported similar findings in the suburban of Terengganu (38.7%) (Bachok et al. 2007) and rural village in Kelantan (31.8%) (Shafei M.N. et al., 2012) while Mardiana et al., (2015) found low family planning uptake (38.4%) among women in the urban locality (Serdang). Recent studies conducted in Malaysia in the year 2014 and 2015, revealed that contraceptive prevalence rate for married women of reproductive age was 55.0% (Mansor, et al., 2015) and 53.9% (Najimudeen & Sachchithanantham, 2016) respectively. Previous study reported that contraceptive prevalence rate was 48.0%

among men with the most used method was condom and the least used was sterilisation (Nilofer Jabarulla Khan et al., 2018). World Health Organization has reported that many more women of reproductive age are using some form of contraception than in 1990. Worldwide, in 2019, 49 per cent of all women in the reproductive age range (15-49 years) were using some form of contraception, an increase from 42 per cent in 1990. In Malaysia, various contraceptive methods are available including pills, tubal ligations, condoms, injectables, intrauterine device (IUD), and implants which are known as the more effective modern contraceptives while withdrawal, rhythm and abstinence are the traditional methods (National Population and Family Development Board 2016). General report by United Nations (2020) stated, the most common method of contraception used by Malaysians was contraceptive pills followed by withdrawals, female sterilisation and injectables, while the least used contraceptive method was implant. Several studies have provided information regarding factors that influence family planning uptake locally and internationally. Various factors that influenced the usage of family planning, which include sociodemographic factors, family and sociocultural values, awareness and perception towards family planning and accessibility to the service. Sociodemographic characteristics such as age, marital status and gender influenced family planning utilisation. In Indonesia, those aged 15-24 years were associated with higher practice compared to the higher age group (Gafar et al., 2020). Meanwhile, in Bangladesh, those in the higher age group were associated with higher practice (Hossain et al., 2018). On the contrary, age was not a significant factor in the practice of family planning among Malaysian population (Mansor, Khatijah, et al., 2015). There were several barriers towards family planning utilisation namely low knowledge of contraception, sociocultural factors including religious prohibition, spousal opposition, support from significant others, marriage satisfaction (Mekonnen et al., 2011), decision making for family planning and health system barriers (Najafi-sharjabad et al., 2013). Mixed outcomes were seen regarding contribution of knowledge towards family planning utilisation. Nazri Shafei & Shaharudin Shah, (2012) revealed, knowledge of family planning was relatively low among married couples in Malaysia. Najafi-Sharjabad et al., (2014) stated, good knowledge was associated with higher practice of family planning while others found that there was no association between knowledge and practice (Mansor, Khatijah, et al., 2015). With good knowledge on family planning, better communication on the benefits of family planning can easily be delivered to the spouse. Previous studies have found that lack of spousal communication translated into poor family planning practice (Mansor, Abdullah, et al., 2015; Najafi-Sharjabad et al., 2014) while couples who discussed about family planning together were more likely to use contraception (Najafi-Sharjabad et al., 2014; Nilofer Jabarulla Khan et al., 2018). Health services related factors also contributed to the usage of family planning. The advice and consultation services provided by the healthcare workers (Mekonnen et al., 2011) as well as patients' relationships with health care providers (Holing et al. 1998) determined usage of family planning. A study in Indonesia found that higher financial status was significantly associated with higher practice of family planning (Gafar et al., 2020) while in Malaysia, no significant association was found between financial status and family planning practice (Mansor, Khatijah, et al., 2015). Few studies also found higher number of children was associated with higher practice of family planning (Gafar et al., 2020; Hossain et al., 2018; Mansor, Khatijah, et al., 2015; Najafi-Sharjabad et al., 2014). Better understanding towards factors contributing towards low family planning utilisation can improve the focus of intervention that shall be planned by the respective authority. Hence, this research aimed to determine the prevalence of family planning utilisation and its associated factors among adults in Malaysia.

METHODOLOGY

STUDY SAMPLES

A cross-sectional study was conducted between 19th April to 6th July 2021 among adults in Malaysia using convenience sampling method. The respondents were approached through various social media platforms such as whatsapp, facebook, telegram, twitter and instagram. Voluntary participation was encouraged from the respondents by answering a set of questionnaire using google form. Inclusion criteria were Malaysian adults aged 18 years and above and not pregnant while the exclusion criteria was women who have menopaused. Primary outcome was family planning utilisation and it was defined as usage of any contraceptive methods (traditional or modern) within the past one year. The independent variables studied were sociodemographic characteristics, knowledge and attitude towards family planning, presence of spousal communication for family planning and accessibility to the family planning service.

STUDY INSTRUMENTS

A google form questionnaire was developed by the research team following literature reviews. It consisted of sociodemographic characteristics, knowledge and attitude on family planning, presence of spousal communication about family planning, accessibility to the family planning service and utilisation of family planning by the respondents. Content validation was done by the panel of experts and reliability measurement represented by the cronbach alpha value of 0.741 for knowledge and 0.808 for attitude domains. There were 14 questions for knowledge with response options of "Yes", "No," or "Not Sure." One point was allocated for each correct answer and 0 for the wrong and unsure answers. The mean (SD) total knowledge score ranged between 0 to 14. Attitude towards family planning was measured through 10 questions with 5 points Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) with mean (SD) total attitude scores ranged between 10 to 50. Family planning utilisation was defined as self-reported usage of any methods of contraception within the past 12 months.

DATA ANALYSIS

Data was analysed using IBM Statistical Program for Social Sciences (SPSS) version 25.0. Descriptive and inferential analysis were executed. Numerical variables presented as mean (SD) and categorical variables were presented as frequency (%). Bivariate analysis were done using chi-square and independent *t*-test. In determining the predicting factors of family planning utilisation, multiple logistic regression was carried out.

RESULTS

SOCIODEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

Table 1 showed the sociodemographic characteristic of the respondents. Of 402 respondents, majority of them were female (82.3%), Malay (97.5%), within the age group 35 to 49 years of age (51.5%), married (96.8%), completed tertiary education (66.7%), working (85.6%), with household income within the category of M40 (50.5%), staying in the urban area (46.3%) and having 1 to 3 children (54.0%).

PREVALENCE OF FAMILY PLANNING (FP) UTILISATION AMONG RESPONDENTS

Of 402 respondents, 197 (49.0%) used family planning. Majority were female (86.3%), Malay (98.5%), age between 35-49 years (59.4%), married (99.5%), completed tertiary education (69.0%), household income of RM 4850 to RM 10959 (54.8%) and having maximum of 5 children (88.3%). Majority of the respondents chose modern method (82.2%) as compared to traditional method. With regards to the contraceptive prevalence rate (CPR) for any methods (traditional and modern) and modern method only, our study revealed 58.5% and 48.1% respectively.

FACTORS ASSOCIATED WITH FAMILY PLANNING UTILISATION AMONG RESPONDENTS

Table 2 represents bivariate analysis in assessing the factors that associated with family planning utilisation. Various sociodemographic characteristics such as age group, marital status and number of children were significantly associated with family planning utilisation. Other factors such as knowledge and attitude towards family planning, spousal communication and accessibility to family planning also influenced respondents' decision towards usage of family planning. Descriptively, mean (SD) total knowledge score was higher among respondents who utilised family planning (9.01 (2.271) as compared to respondents who did not utilise it. It is shown that our respondents have minimal knowledge in some information on family planning (Table 3). More than half of the respondents thought that traditional method is more effective than modern method. Majority (92.8%) of the respondents thought weight gain is the side effect of contraceptive pills. In addition, three quarter of them also answered wrongly when asked about the use of intrauterine contraceptive device that can protect women against sexually transmitted infections (70.9%) and the use of contraceptive pills that can reduce the risk of getting breast cancer (78.9%). Similarly for attitude score, mean (SD) total score (42.20 (4.948) also higher among respondents who used family planning. Overall, respondents have limited knowledge about family planning, however, they have positive attitude towards family planning (Table 4). Independent *t*-test showed that increased in knowledge and attitude scores significantly associated with family planning utilisation ($P < 0.001$).

Majority of the respondents who decline family planning, did not communicate about family planning with their partner. Almost three quarter (69.9%) of the respondents agreed that they have access to family planning services near to their area. In determining the predictors of family planning utilisation, further advanced analysis was done using multiple logistic regression. Result showed that only age group of 25-34 and 35-50 years of age, having number of children within 1 to 5, higher score of knowledge and attitude towards family planning determined family planning utilisation. (Table 5)

Table 1: Sociodemographic characteristics of the respondents (N=402)

Variables	Frequency (%)
Gender	
Male	71 (17.7)
Female	331 (82.3)
Ethnicity	
Malay	392 (97.5)
Non-malay	10 (2.5)
Age group	
18 – 24	17 (4.2)
25 – 34	84 (20.9)
35 – 49	207 (51.5)
> 50	94 (23.4)
Marital status	
Single/divorced/widowed	13 (3.2)
Married/cohabitant	389 (96.8)
Education level	
No formal/primary school	18 (4.5)
Secondary school till diploma	116 (28.9)
Bachelor till Phd	268 (66.7)
Working status	
Yes	344 (85.6)
No	58 (14.4)
Household income	
B40 (RM 4849 and below)	116 (28.9)
M40 (RM4850-RM10959)	203 (50.5)
T20 (RM 10960 and above)	83 (20.6)

Location	
Urban	186 (46.3)
Suburban	112 (27.9)
Rural	104 (25.9)
Number of children	
No child	34 (8.4)
1 to 3 children	217 (54.0)
4 to 5 children	119 (29.6)
> 5 children	32 (8.0)

Table 2: Factors associated with family planning utilisation among the respondents (N=402)

Variable	Family Planning utilisation		
	Yes (n=197)	No (n=205)	*P* value
Age			<0.001*
18 – 24	6 (35.3)	11 (64.7)	
25 – 34	52 (61.9)	32 (38.1)	
35 – 50	117 (56.5)	90 (43.5)	
>50	22 (23.4)	72 (76.6)	
Gender			0.050
Female	170 (48.6)	161 (51.4)	
Male	27 (38.0)	44 (62.0)	
Ethnic			0.339
Malay	194 (49.5)	198 (50.5)	
Non-Malay	3 (30.0)	7 (70.0)	
Education			0.611
No formal & Primary Education	8 (44.4)	10 (55.6)	
Secondary & Diploma/College	53 (45.7)	63 (54.3)	
Tertiary Education	136 (50.7)	132 (49.3)	
Marital status			0.003*
Single/widowed/divorced	1 (7.7)	12 (92.3)	
Married	196 (50.4)	193 (49.6)	
Income category			0.088
B40: Less than RM 4850	47 (40.5)	69 (59.5)	
M40: RM4851-RM10970	108 (53.2)	95 (46.8)	
T20: Above RM 10971	42 (50.6)	41 (49.4)	
Number of children			0.039*
No children	11 (32.4)	23 (67.6)	
1-5 children	174 (51.8)	162 (48.2)	
> 5 children	12 (37.5)	20 (62.5)	
Spousal communication (discussed about FP)			<0.001*
Yes			
No	197 (52.7)	177 (47.3)	
	0 (0.0)	28 (100.0)	
Accesibility of FP services			0.001*
Yes	153 (54.4)	128 (45.6)	
No	44 (36.4)	77 (63.6)	

*Variables are significant at *P*<0.05 using Chi-square analysis

Table 3: Description of knowledge towards family planning methods among the respondents (N=402)

Statements	Correct answer	Wrong answer
K1: Do you know about family planning methods?	384 (95.5)	18 (4.5)
K2: Family planning is used to space between children.	393 (97.8)	9 (2.2)
K3: Family planning is used to prevent unwanted pregnancy.	381 (94.8)	21 (5.2)
K4: Contraceptive injection for women is administered every 2 to 3 months depending on its type.	246 (61.2)	156 (38.8)
K5: A woman may use calendar method by avoiding unprotected sexual intercourse during her fertile period to avoid being pregnant.	363 (90.3)	39 (9.7)
K6: Vasectomy (male sterilisation) is reversible.	92 (22.9)	310 (77.1)
K7: Traditional contraceptive method is more effective than modern method.	167 (41.5)	235 (58.5)
K8: Used condom can be worn many times.	371 (92.3)	31 (7.7)
K9: Reduced menstrual period flow is a side effect of contraceptive pills.	214 (53.2)	188 (46.8)
K10: Weight gain is a side effect of contraceptive pills.	373 (92.8)	29 (7.2)
K11: Intrauterine contraceptive device (IUCD) can protect women against sexually transmitted infections.	117 (29.1)	285 (70.9)
K12: Contraceptive pills can reduce the risk of getting breast cancer.	85 (21.1)	317 (78.9)
K13: Implants can lead to irregular menstrual cycle.	222 (55.2)	180 (44.8)
K14: Condom is 100% effective to prevent pregnancy.	253 (62.9)	149 (37.1)

Mean (SD) knowledge score: 8.25 (2.433)

Table 4: Description of attitude towards family planning among the respondents (N=402)

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
A1: In my opinion, family planning is important to prevent unplanned pregnancy.	8 (2.0)	5 (1.2)	39 (9.7)	94 (23.4)	256 (63.7)
A2: I support the practice of family planning among my family members.	13 (3.2)	15 (3.7)	58 (14.4)	97 (24.1)	219 (54.5)
A3: In my opinion, short spacing between pregnancies give bad effects to the mother's health.	13 (3.2)	12 (3.0)	70 (17.4)	115 (28.6)	192 (47.8)
A4: In my opinion, contraceptive pills lead to permanent infertility.	61 (15.2)	102 (25.4)	167 (41.5)	47 (11.7)	25 (6.2)
A5: In my opinion, family planning can be used to space out pregnancies.	4 (1.0)	2 (0.5)	27 (6.7)	128 (31.8)	241 (60.0)
A6: In my opinion, the use of contraceptives will provide sense of safety from unplanned pregnancy.	17 (4.2)	31 (7.7)	122 (30.3)	131 (32.6)	101 (25.1)
A7: In my opinion, it is sinful to use contraception.	154 (38.3)	105 (26.1)	76 (18.9)	39 (9.7)	28 (7.0)
A8: In my opinion, discussing about contraception with our partner is embarrassing.	255 (63.4)	81 (20.1)	30 (7.5)	16 (4.0)	20 (5.0)
A9: I believe family planning is important in increasing quality of life of mother and their children.	7 (1.7)	9 (2.2)	26 (6.5)	113 (28.1)	247 (61.4)
A10: I will use modern contraceptive methods despite its potential side effects.	24 (6.0)	47 (11.7)	143 (35.6)	115 (28.6)	73 (18.2)

Mean (SD) attitude score: 40.29 (6.161)

Table 5: Predictors for family planning utilization using Simple and Multiple Logistic Regression (N=402)

Variable	Family Planning utilisation		Crude Odds Ratio		*P*-value[a]	Adjusted Odds Ratio		*P*-value[b]
	Yes (n=197)	No (n=)	COR	95% CI		AOR	95% CI	
Age								
18 – 24	6 (35.3)	11 (64.7)	1.785	0.592 – 5.381	0.303	4.281	0.989 – 18.530	0.052
25 – 34	52 (61.9)	32 (38.1)	5.318	2.778 – 10.182	<0.001	3.747	1.692 – 8.297	0.001*
35 – 50	117 (56.5)	90 (43.5)	4.255	2.452 – 7.381	<0.001	2.904	1.567 – 5.381	0.001*
>50 (ref)	22 (23.4)	72 (76.6)						
Number of children								
No children (ref)	11 (32.4)	23 (67.6)						
1-5 children	174 (51.8)	162 (48.2)	2.246	1.061 – 4.753	0.034	3.750	1.358 – 10.352	0.011*
> 5 children	12 (37.5)	20 (62.5)	1.255	0.455 – 3.459	0.661			
Knowledge on Family Planning methods, mean (SD)	9.01 (2.271)	7.51 (2.450)	1.316	1.202 – 1.441	<0.001	1.213	1.083 – 1.360	0.001*
Attitude towards Family Planning, mean (SD)	42.20 (4.948)	38.46 (6.650)	1.119	1.077 – 1.163	<0.001	1.055	1.007 – 1.106	0.026*
Gender								
Male (ref)	170 (48.6)	161 (51.4)						
Female	27 (38.0)	44 (62.0)	1.721	1.018 – 2.910	0.043	1.012	0.538 – 1.904	0.971
Ethnic								
Non-Malay (ref)	3 (30.0)	7 (70.0)						
Malay	194 (49.5)	198 (50.5)	2.286	0.583 – 8.969	0.236	2.291	0.473 – 11.098	0.303
Marital status								
Single/divorced (ref)	1 (7.7)	12 (92.3)						
Married	196 (50.4)	193 (49.6)	12.187	1.569 – 94.631	0.017	6.532	0.720 – 55.958	0.087
Education								
No formal & Primary (ref)	8 (44.4)	10 (55.6)						
Secondary/Diploma/College	53 (45.7)	63 (54.3)	1.052	0.387 – 2.855	0.921	0.506	0.146 – 1.756	0.506
Tertiary	136 (50.7)	132 (49.3)	1.288	0.493 – 3.364	0.606	0.488	0.135 – 1.761	0.488
Household income								
B40 (ref)	47 (40.5)	69 (59.5)						
M40	108 (53.2)	95 (46.8)	1.669	1.052 – 2.649	0.030	1.822	0.977 – 3.396	0.059
T20	42 (50.6)	41 (49.4)	1.504	0.852 – 2.654	0.159	1.637	0.703 – 3.812	0.253
Spousal communication								
No (ref)	197 (52.7)	177 (47.3)						
Yes	0 (0.0)	28 (100.0)	1.798E+9	0.000 -	0.988	832810895	0.000 -	0.998
Accesibility to FP services								
No (ref)	153 (54.4)	128 (45.6)						
Yes	44 (36.4)	77 (63.6)	2.092	1.349 – 3.243	0.001	1.223	0.724 – 2.067	0.452

a Simple Logistic Regression (SLR)
b Multiple Logistic Regression, All variables from SLR were put into the analysis, Nagelkerke R2=0.344; Hosmer-Lemeshow test=0.462 (p >0.05); Prediction power 70.9%; no influential outlier, All interaction terms checked, not significant; Dependent variable : Family Planning Utilisation
*p<0.05
ref = Reference

DISCUSSION

In this study, the prevalence of family planning (FP) utilisation among the respondents can be considered as average at 49.0%. Comparing to other local studies by Bachok N. et al., (2007), Shafei M.N. et al., (2012) and Mardiana M. et al., (2015), their findings were even lower ranging between 30-40% of the respondents used family planning. This finding is due to the difference in the characteristics of our study population which included both male and female adults from online community whereas other local studies included women in the rural community (Bachok et al., 2007), suburban married couple (Shafei M.N. et al., 2012) and women attended urban government health clinic (Mardiana M. et al., (2015). Despite lower utilisation of FP in this study, higher percentage of modern method contraception was seen among the users. This finding may be due to more than 70% of the respondents are 35 years and above, staying in the urban area with easy access to the service.

With regards to reproductive women in our study, the contraceptive prevalence rate (CPR) were 58.5% for any methods (traditional and modern) and 48.1% for modern methods. It is higher than the 5th Malaysian Population Study whereby the percentage of women who used any method and modern method of family planning were 52.2% and 34.3% respectively (National Population And Family Development Board, 2016). United Nation, Department of Economic and Social Affairs, Population Division (2019) reported, Vietnam, Thailand followed by Indonesia were among the countries with higher contraceptive prevalence with modern method in South East Asia region. Malaysia falls as 2nd lowest after Timor Leste with median contraceptive prevalence of 23.3 using modern method. Reviewed article by Najimudeen M. et al., (2014) revealed that contraceptive use in Malaysia had been stagnated for 25 years, with high prevalent of unmet need for family planning resulting in unplanned pregnancies and unwanted births, especially among women with less education. Hence, it is important to provide correct knowledge on family planning especially among the reproductive group of population.

Comparing with the finding from the Institute for Population and Social Research (IPSR) of Mahidol University (2010), Thailand had the highest (70.0%) contraceptive prevalence rate. It was justified through contraceptive services that were widely available, mostly free of charge, with no incentive, and with quality and safety control in place. Furthermore, Thailand's universal insurance policy prioritised the sexual and reproductive health services which include family planning services and condoms for HIV (Human Immunodeficiency Virus) and sexually transmitted infection prevention.

Present study has shown that few factors determined family planning utilisation which included respondents' age, number of children, knowledge and attitude towards family planning. Utilisation of family planning was high among respondents between 25-34 years old followed by 35-50 years of age. The result is in line with a study conducted by Alsaleem et al., (2018) among reproductive women in Saudi Arabia. Their finding stated that those who were in the younger age group tend to have higher utilisation of family planning due to desired number of children that they wanted to have at younger age. In contrast, respondents who are more than 50 years old recorded lowest in utilising family planning . This finding is in line with a study by Monteith et al. ,(2016) that reported, women were less interested in using contraception at older age. It is due to infrequent sexual activities and the possibility of being menopause when the age has exceeded 50 years old.

Having at least 1 to 5 number of children determines family planning utilisation among our respondents as compared to no children and more than 5 children at home. This is in contrast with other studies that stated the higher the number of children, the higher contraceptive use among women (Abdel-Salam et al., 2020; Bhandari et al., 2019; Mansor, Abdullah, et al., 2015; Laskar et al., 2006). This discrepancy may be due to minimal number of sample size among respondents with no children and respondents with more than 5 children at home.

In our study, respondents who used family planning have higher mean knowledge and attitude scores towards family planning. This observation is in line with previous research conducted by Semachew Kasa et al., (2018) in Northwest Ethiopia. They revealed, married women with better knowledge were more likely to practice family planning. Our respondents showed limited knowledge about family planning although 95.5% responded that they knew about family planning. They also have limited knowledge on the benefits and side effects of specific contraceptive method. For instance, majority of the respondents thought traditional contraceptive method is more effective than the modern method. They also thought that weight gain is the side effect of taking contraceptive pills, IUCD protects from sexual transmitted diseases and contraceptive pills protect from breast cancer. The incorrect knowledge that they have will hinder them from utilising family planning. Therefore, there is a need to improve awareness in achieving correct information on family planning.

In addition, more than three quarter of our respondents had positive attitude towards family planning and it significantly predicts family planning utilisation. This finding is in accordance with another study done by Avci et al., (2018). Other studies by Semachew Kasa et al., (2018) and Bekele et al., (2020) revealed that half of their respondents had positive attitude towards family planning. The difference in magnitude may be contributed by the differences in study measurement used, sample size, socio-cultural practices, and access to information on family planning.

Although spousal communication did not predict family planning utilisation in our study, it is in contrast with a study done by Najafi-Sharjabad et al., (2014). They reported, women who had discussion with their spouses about family planning were 2.2 times more likely to practice modern contraception. Communication between spouses about contraceptive utilisation will avoid misunderstanding between them since both parties agree to utilise it and have higher shared knowledge. Mostafavi et al., (2006) found that men who communicated with their partners were more likely to utilise modern contraceptives. Communication between spouses facilitates the usage of modern contraceptives. A study by Hartmann et al. ,(2011) revealed that spousal family planning communication positively influences contraceptive use and increases shared decision-making which was mediated through increased knowledge or reduced male opposition to family planning.

Our study found almost three quarter of the respondents agreed that they have easy access to family planning services. However, a quarter of them still do not utilise family planning. This may be due to various reasons such as lack of knowledge and negative attitude towards family planning. A study by Mustafa et al., (2015) among rural community reported that the inability to reach for family planning services was due to the distance. They were unwilling to travel too far to get the contraception they desired. Long distance in acquiring family planning services also leads to higher cost of transportation and time needed to travel which some people considered as sheer waste and would have been used for economic activities instead (Effiong & Wilson, 2014). Therefore, outreach programmes for family planning are important especially for the rural population.

Main limitation from this study is on samples selection. Although an online survey may provide bias in sampling the respondents, the descriptive information regarding current knowledge and attitude of the population towards family planning provide valuable baseline information. Among the strength were having good validity and reliability of measurement tool. Furthermore, present study is among the few studies on family planning that focus on both genders. However, generalisation of this findings must be used with caution in view of the non-probability sampling used. With online questionnaires, respondents were unable to ask for clarification on questions they do not understand. In addition, there was potential of recall bias as respondents may forget his or her history of family planning utilisation. Respondents may also not reveal the truth on any questions that they may consider as sensitive to them.

CONCLUSION

Nevertheless, the findings from this observational study still benefited policy maker for future planning. Family planning utilisation remains low despite easily accessible services. Increasing knowledge, instils positive attitude and targeting towards suitable population are among the crucial elements to be focused in any intervention plans by the relevant authorities.

REFERENCES

1. Abdel-Salam, D. M., Albahlol, I. A., Almusayyab, R. B., Alruwaili, N. F., Aljared, M. Y., Alruwaili, M. S., & Alnasser, R. M. (2020). Prevalence, Correlates, and Barriers of Contraceptive Use among Women Attending Primary Health Centers in Aljouf Region, Saudi Arabia. *Int. J. Environ. Res. Public Health*, *17*, 3552. https://doi.org/10.3390/ijerph17103552

2. Alan Guttmacher Institute (2002), *Family Planning Can Reduce High Infant Mortality Levels*, Issues in Brief: 2022 series, no 2.

3. Alsaleem, M. A., Khalil, S. N., Siddiqui, A. F., Alzahrani, M. M., & Alsaleem, S. A. (2018). Contraceptive use as limiters and spacers among women of reproductive age in Southwestern, Saudi Arabia. *Saudi Medical Journal*, *39*(11), 1109–1115. https://doi.org/10.15537/smj.2018.11.22817

4. Avci, I. A., Cavusoglu, F., Aydin, M., & Altay, B. (2018). Attitude and practice of family planning methods among Roma women living in northern Turkey. *International Journal of Nursing Sciences*, *5*(1), 33–38. https://doi.org/10.1016/j.ijnss.2018.01.002

5. Bachok, N., Abdul Razak, A., Ismail, N. M., & Hamzah, T. N. T. (2007). Acceptance and Knowledge of Family Planning Among Muslim Women in Rural Villages of Kelantan. *Journal of the Islamic Medical Association of North America*, *39*(3), 109–116. https://doi.org/10.5915/39-3-8524

6. Bekele, D., Surur, F., Nigatu, B., Teklu, A., Getinet, T., Kassa, M., Gebremedhin, M., Gebremichael, B., & Abesha, Y. (2020). Knowledge and Attitude Towards Family Planning Among Women of Reproductive Age in Emerging Regions of Ethiopia. *Journal of Multidisciplinary Healthcare*, *13*, 1463–1474. https://doi.org/10.2147/JMDH.S277896

7. Bhandari, R., Pokhrel, K. N., Gabrielle, N., & Amatya, A. (2019). Long acting reversible contraception use and associated factors among married women of reproductive age in Nepal. *PLoS ONE*, *14*(3), 1–13. https://doi.org/10.1371/journal.pone.0214590

8. Effiong, V., & Wilson, I. (2014). Transport Cost And The Use Of Family Planning As A Preventive And Promotion Health Care Strategies In Rural Akwa Ibom State Of Nigeria. *British Journal of Education Vol.2, No.4*, pp.63-72, September.

9. Gafar, A., Suza, D. E., Efendi, F., Has, E. M. M., Pramono, A. P., & Susanti, I. A. (2020). Determinants of contraceptive use among married women in Indonesia. *F1000Research*,

10. Hartmann, M., Gilles, K., Shattuck, D., & Guest, G. (2011). International Perspectives Changes in Couples ' Communication as a Result of a Male-Involvement Family Planning Intervention. *Journal of Health Communication : October 2014*, 37–41. https://doi.org/10.1080/10810730.2011.650825

11. Holing E.V., Beyer C.S., Brown Z.A, et al. Why don't women with diabetes plan their pregnancies. *Diabetes Care*. 1998;21:889–895. doi: 10.2337/diacare.21.6.889 [Crossref], [Web of Science ®], [Google Scholar]

12. Hossain, M., Khan, M., Ababneh, F., & Shaw, J. (2018). Identifying factors influencing contraceptive use in Bangladesh: evidence from BDHS 2014 data. *BMC Public Health 2018 18:1*, *18*(1), 1–14. https://doi.org/10.1186/S12889-018-5098-1

13. Laskar, M. S., Mahbub, M. H., Yokoyama, K., Inoue, M., & Harada, N. (2006). Factors associated with contraceptive practices of married women in Bangladesh with respect to their employment status. *The European Journal of Contraception & Reproductive Health Care*, *11*(3), 220–227.doi:10.1080/13625180600759854

14. Mardiana Binti Mansor, Khatijah Lim Abdullah, San San Oo, Kamal Akhtar, Ayu Sulaini Binti Jusoh, Suriawati Binti Ghazali, Mainul Haque, Lim Chin Choon. (2015). The Prevalence of Family Planning and associated factors among women in Serdang, Selangor. *Malaysian Journal Of Public Health Medicine 2015, Vol. 15* (3): 147-156

15. Mansor, M. B., Oo, S. S., & Khatijah, L. A. (2015). Prevalence of Family Planning Practices among Women Influenced by Husband's Socio Demography and Decision Making. November. https://doi.org/10.17576/jskm-2015-1302-05

16. Mekonnen T.T., Woldeyohannes S.M., Yigzaw T. (2015). Contraceptive use in women with hypertension and diabetes: cross-sectional study in northwest Ethiopia. *Int J Womens Health*. 7:957–964. [Web of Science ®], [Google Scholar]

17. Monteith, R. S., Anderson, J. E., Pineda, M. A., Oberle, M., Monteith, R. S., Anderson, J. E., Pineda, M. A., Santiso, R., & Oberle, M. (2016). C*ontracepfive Use and Fertility in Guatemala*. 16(5), 279–288.

18. Mostafavi, S. F., Mehr Yar, A. H., & Agha, H. (2006). Socio-Cultural Factors Affecting Men's Use Of Family Planning Methods In Iran. *Journal Of Social Sciences And Humanities Of Shiraz University, 24*(2 (47)), 9–16.

19. Mustafa, G., Azmat, S. K., Hameed, W., Ali, S., Ishaque, M., Hussain, W., Ahmed, A., & Munroe, E. (2015). *Family Planning Knowledge , Attitudes , and Practices among Married Men and Women in Rural Areas of Pakistan : Findings from a Qualitative Need Assessment Study*. 2015

20. Najafi-Sharjabad, F., Rahman, H. A., Hanafiah, M., & Syed Yahya, S. Z. (2014). Spousal communication on family planning and perceived social support for contraceptive practices in a sample of Malaysian women. *Iranian Journal of Nursing and Midwifery Research*, *19*(7 Suppl 1), S19-27. http://www.ncbi.nlm.nih.gov/pubmed/25949248

21. Najafi-sharjabad, F., Zainiyah, S., Yahya, S., Rahman, H. A., & Hanafiah, M. (2013). *Barriers of Modern Contraceptive Practices among Asian Women : A Mini Literature Review*. *5*(5), 181–192. https://doi.org/10.5539/gjhs.v5n5p181

22. Najimudeen, M., & Sachchithanantham, K. (2014). An insight into low contraceptive prevalence in Malaysia and its probable consequences. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*, 493–496. https://doi.org/10.5455/2320-1770.ijrcog20140943

23. National Population And Family Development Board. (2016). *Report On Key Findings Fifth Malaysian Population and Family Survey* [MPFS-5].

24. Nilofer Jabarulla Khan, R., Mohd Hashim, S., Mohamed Nawi, A., & Halizah Siraj, H. (2018). *Factors associated with ever used of modern contraception among married men attending a primary healthcare clinic*.

25. Rosalia Sciortino. Institute for Population and Social Research (IPSR) of Mahidol University, Thailand (2010). *Achieving Contraceptive Security and Meeting Reproductive Health Needs in Southeast Asia*. Asia Pacific Alliance for Sexual and Reproductive Health and Rights. www.asiapacificalliance.org

26. Rosliza A.M., & Majdah (2010). Male participation and sharing of responsibility in strengthening family planning activities in Malaysia. *Malaysian Journal of Public Health Medicine, Vol. 10* (1): 23-27

27. Rosniza Aznie C. R., Usman Y., Suriati G., Abdul Rahim M. N., Rosmiza M. Z., Lyndon N., Mohd Fuad M. J., Mohd Yusof Hussain, Zaimah R. & Sarmila M. S. 2013. Identifying Potential Factors of Ideal Childbearing among Malay Women in Terengganu. *Asian Social Science*, *9*(8), p79. https://doi.org/10.5539/ASS.V9N8P79.

28. Shafei M.N., Shah M.S., Tengku Ismail T.A. (2012) Knowledge and Attitude towards Family Planning Practice and Prevalence of Short Birth Spacing Among Residents of Suburban Area in Terengganu, Malaysia. *J Community Med Health Educ 2:180*. doi: 10.4172/2161-0711.1000180

29. Semachew Kasa, A., Tarekegn, M., & Embiale, N. (2018). Knowledge, Attitude and Practice Towards Family Planning Among Reproductive age women in a resource limited settings of Northwest Ethiopia. *BMC Research Notes, 11*(1), 577. https://doi.org/10.1186/s13104-018-3689-7

30. United Nations, Department of Economic and Social Affairs, Population Division (2019). *Family Planning and the 2030 Agenda for Sustainable Development: Data Booklet.* (ST/ESA/ SER.A/429).

31. United Nations Department of Economic and Social Affairs, Population Division (2020). *World Fertility and Family Planning 2020: Highlights* (ST/ESA/SER.A/440).