

ORIGINAL ARTICLE

Determinants of Knowledge, Attitude and Practices towards Family Planning Among Women in Raub, Pahang, Malaysia

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ABSTRACT

Introduction: Family planning (FP) is a method to prevent unwanted pregnancies among couples. More than 200 million women in the developing nation do not want pregnancy but do not practically use modern methods of FP. Women's knowledge, attitude, and practice (KAP) play a crucial role in using FP's is a form of practice. This study explored the determinants of KAP towards FP among women in Raub, Pahang, Malaysia. **Methods:** A cross-sectional study was conducted among 249 women with a convenience sampling method. Data was collected using a pilot-tested self-administered questionnaire. **Results:** Age, ethnicity, religion, marital status, employment status, annual income, education level, and the number of children were significantly correlated ($p = 0.001 - 0.019$) with the KAP of FP. **Conclusion:** The study demonstrated a need for health education campaigns and utilise every interaction of women with healthcare providers to disseminate information on FP and dispel misconceptions. Interventional studies are recommended for further exploration.

Keywords: Family planning, Knowledge, Attitude, Practice, Malaysia

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INTRODUCTION

World Health Organization (WHO) defined family planning (FP) as the individuals' and couple's ability to envision and achieve their desired number of children and the spacing between pregnancies (1). In 2019, 1.1 billion out of the 1.9 billion women worldwide in their reproductive age group of (15 – 49 years) wanted FP; 842 million of them used FP, while 270 million had an unmet need for FP (2). Many international institutions and organisations such as WHO, the United Nations Population Fund (UNFPA), and the United Nations Children's Fund (UNICEF) have promoted FP as a powerful medium to increase the spaces between childbirth and limiting the family number.

Over 200 million women in developing nations do not wish for pregnancy. Still, they do not practically use modern FP methods (3). About 25 million unsafe abortions were conducted in almost all developing countries worldwide each year (4), and about 4.7 – 13.2% of maternal mortality can be linked to illegal

abortion annually (5). In 2015, 57% of married women of reproductive age globally used modern contraception method, accounting for 90% of contraceptives users (6). FP provided positive knowledge and reproductive lifestyle practices and enhanced couples' ability to make informed lifestyle, health, and reproductive well-being choices (3).

FP prevented mothers and children from unwanted pregnancies' complications such as placental abruption, low birth weight, and premature babies (4). Uncontrolled fertility, which contributes to these complications, threatened economic development and political stability. As a result, many countries consider reducing population growth as an essential component of their overall development, planning to improve peoples' standards and quality of life (QOL). Uncontrolled population growth was perceived as the most significant barrier to national development programs (7). Thus, promoting FP, particularly in countries with high birth rates, may reduce poverty and starvation, preventing 32% of all maternal mortality and almost 10% of infant mortality (8,9).

Rapid population growth has been a challenge to the economy of many developing countries. Since the 1960s, the availability of modern methods of contraception

was increasing; however, it was not fully utilised. For all methods, the Contraceptives Prevalence Rate (CPR) in Malaysia was 55%, which was very low compared to other neighbouring countries such as Singapore with 74% and Thailand with 79% (10). In Kelantan, Malaysia, FP practices' prevalence was 31.8% on both natural and modern contraceptives (11). Similarly, a study reported that FP practices' prevalence was 38.4% and sociodemographic status, knowledge, and attitude were predictors of FP practices (12).

A study among multiparous women in Lahore, Pakistan, found that the level of education was a determinant of KAP towards FP among women; about 97% of the women in Lahore knew at least one contraceptive method but only with 29% of CPR (13). Concurrently in Ethiopia, women who had completed primary and secondary education had utilised better FP practices (14). Personal attitude affected FP's use, and lack of knowledge, religious faith, and fear of the side effects of practising FP was among the most prominent barriers to not using modern FP (15). Another study was conducted in Jimma Region, Ethiopia, among women; a high level of knowledge on FP did not lead to high FP practice (16). It is supported by other studies conducted in Asia that showed a high level of knowledge on FP among women with low utilisation of FP makes utilisation of FP the ultimate challenge (17,18). However, in a study conducted among women in Northwest Ethiopia, women with greater knowledge of FP were more likely to use modern FP methods than those who had a lower level of knowledge (14).

There was still a lack of adequate knowledge on various FP methods among women in Malaysia, and women at the reproductive age are willing to practice convenient and effective FP methods but have been unable to access the information, services, and support from their spouses and members of the community (19). Most medical students at Universiti Putra Malaysia had poor or inadequate knowledge and a poor attitude on FP, linked to cultural norms and religious practices in Malaysia (20). Literature shows incongruity between KAP of FP among women and the lack of studies conducted in Malaysia about KAP determinants towards FP among women. This study was conducted to find out the determinants of KAP towards FP among women in Raub, Pahang, Malaysia.

MATERIALS AND METHODS

A cross-sectional study was conducted among women who attended *Klinik Kesihatan Ibu dan Anak* (KKIA) Raub, Pahang, from 1st of March to 30th of April 2020. Women of reproductive age (18 – 49 years old), who attended KKIA Raub, Pahang during the data collection period, speaking Malay or English, were included in this study. Meanwhile, those who had menopause or had a history of hysterectomy and were not interested in

participating in this study were excluded.

A convenience sampling method was used to obtain the sample size. Following Krejci & Morgan (1970)'s calculation, 5% marginal error and 95% confidential interval were used to calculate the sample size. To maximise sample size, a proportion of 0.05 was used with an accuracy degree of 5%. With the response distribution of 50%, the estimated sample size of 226 participants was calculated. After adding 10% non-response rate the final sample size of 249 was considered for this study.

A self-administered questionnaire that measures the KAP of FP was adopted from another study to collect the data. This questionnaire has been used in another similar study in Fiji with total reliability of 87% (21). Using a pilot study, a panel of five experts was formed to evaluate the content of the questionnaire. The content of the questionnaire was discussed, and any disagreement was discussed extensively until consensus was reached among the experts.

Face validity was conducted among ten women who met the study criteria to find their perception of readability and understandability of the questionnaire. They were excluded from the main study. The questionnaire was finalised and constructed in both Malay and English languages. The questionnaire was then translated backward and forward by a group of Malay and English linguistic experts. The final version of the questionnaire was checked and mutually agreed by the panel of experts before a pilot study was conducted to check the reliability of the questionnaire. The pilot study was conducted among thirty respondents, and the internal consistency of the items was assessed with Cronbach's alpha test; the reliability coefficient was 0.89 for knowledge, 0.708 for attitude and 0.802 for practice. The questionnaire had four sections. Section 1 included sociodemographic questions such as participants' age, education status, marital status, religion, income, and number of children. Section 2 included 12 knowledge-related questions with a 3-point Likert scale: (i) Yes; (ii) Don't Know; (iii) No. For every correct answer, one mark was given. Using a Modified Bloom's cut off points adapted from John's knowledge, attitude and practice study (22,23), the knowledge's score ranged from good (10 – 12), moderate (6 – 9) to poor (less than 5). Section 3 included 15 attitude-related questions with a 3-point Likert scale: (i) Agree (2 marks); (ii) Neutral (1 marks); (iii) Disagree (no marks) with a reverse score for negative statements. The attitude's score ranged from good (24 – 30), moderate (15 – 23), to poor (less than 15). Section 4 is a 5-point Likert type response scale that included seven practice-related questions: (i) Always (2 marks); (ii) Usually (2 marks); (iii) Sometimes (1 mark); (iv) Seldom (1 mark); (v) Never (no mark). The practice's scores ranged from good (11 – 14), moderate (7 – 10), to poor (less than 7).

Women who attended KKIA, Raub, Pahang were approached on the day they visited the health centre and were given a brief explanation regarding the study. All participants who met the inclusion criteria were given the information sheet and consent form. The participants completed the questionnaires with assistance provided to those who could not read or write.

Data were transferred to Microsoft Excel for coding and cleaning. Version 25 of Statistical Package for the Social Sciences (SPSS) was used for data analysis. Descriptive findings were presented using frequency, percentage and mean, and standard deviation (SD). The Pearson correlation test was performed to analyse the relationship between demographic factors and the mean of knowledge, attitude, and practice score. p-value of less than 0.05 was considered as the level of significance.

This study was approved by Research Ethics Committee, Universiti Teknologi Mara (UiTM) No. REC/733/19, and National Medical Research Register (NMRR) No. NMRR-19-3837-51928.

RESULTS

Demographic Characteristics of Participants

The mean age of the participants was 35.67 years old, with a majority in the age of >35 (125, 50.2%), Malay (165, 66.3%), Muslim (167, 67.1%), married (245, 98.4%), employed (210, 84.3%), and earned less than 7999 RM annually (101, 40.6%), had tertiary education (167, 57.1%), and had 1 – 2 child/children (132, 53%) as shown in Table I. The mean and standard deviation of knowledge, attitude, and practice of contraceptives' use was 9.2 (1.53), 25.6 (2.82), and 4.6 (3.98), respectively, as shown in Table II.

Correlation of Knowledge on FP

Ethnicity, marital status, employment status, income per year, religion, and the number of children were significantly correlated ($p = 0.00 - 0.013$) with knowledge on FP, as shown in Table III. Among these factors, the participants' marital status ($r = -0.815$) and employment status ($r = -0.429$) were negatively correlated with FP knowledge.

Correlation of Attitude Towards FP

Age, ethnicity, employment status, income per year, and religion were significantly correlated ($p = 0.001 - 0.016$) with participant attitude towards FP. However, among these factors, only the participants' employment status was negatively correlated ($r = -0.071$ and -0.182) with FP attitude.

Correlation of Practice of FP

Age, marital status, employed status, income per year, and education were significantly correlated ($p = 0.001 - 0.019$) with participants' practice of FP. Among these factors, marital status ($r = -0.148$) and employment

Table I: Distribution of the respondents in terms of socio-demographic (n=249)

Variables	Frequencies (n)	Percent (%)
Age		
<25	2	0.8
25-35	122	49.0
>35	125	50.2
Ethnicity		
Malay	165	66.3
Chinese	19	7.6
Indian	40	16.1
Others	25	10.0
Marital Status		
Married	245	98.4
Divorced	4	1.6
Employment Status		
Yes	210	84.3
No	39	15.7
Income Per Year		
<RM7999	101	40.6
RM8000-RM14999	21	8.4
RM15000-RM24999	49	19.7
>RM 35000	78	31.3
Education level		
Primary	17	6.8
Secondary	59	23.7
Tertiary	167	57.1
Others	6	2.4
Religion		
Islam	167	67.1
Buddhist	19	7.6
Hindu	40	16.1
Others	23	9.2
Number of children		
No children	9	3.60
1-2	87	35.0
3-4	132	53.0
5-6	21	8.40

Table II: Mean and SD of knowledge, attitude and practice towards contraception use (n=249).

Variables	Mean	Standard Deviation (SD)
Knowledge	9.2	1.53
Attitude	25.6	2.82
Practice	4.6	3.98

status ($r = -0.226$) were negatively correlated with FP practice.

DISCUSSION

This study showed that the women in Raub, Pahang, had moderate knowledge of FP comparable to women attending a clinic in Serdang, who knew about FP method

Table III: Correlation of FP practices with socio demographic variables (n=249)

Variables	Knowledge		Attitude		Practice	
	Correlation coefficient	p-value	Correlation coefficient	p-value	Correlation coefficient	p-value
Age	0.068	0.285	0.173	0.006*	0.288	0.001*
Ethnicity	0.193	0.002*	0.260	0.001*	-0.056	0.375
Marital Status	-0.185	0.003*	-0.071	0.261	-0.148	0.019*
Employment Status	-0.429	0.001*	-0.182	0.004*	-0.226	0.001*
Income Per Year	0.291	0.001*	0.152	0.016*	0.578	0.001*
Education level	0.257	0.808	0.015	0.808	0.443	0.001*
Religion	0.157	0.013*	0.260	0.001*	-0.038	0.546
Number of children	0.198	0.002*	0.098	0.124	0.116	0.067

Correlation is significant if $p < 0.05$

and benefits for health purposes (12). In contrast, Fijian women had a higher percentage of participants with poor or inadequate knowledge of contraceptives (21). The moderate knowledge of FP could be due to most of the women in Raub, Pahang had tertiary education.

The level of knowledge on FP and its associated contraception approaches influenced women's decision to use FP (22). However, even with a deeper understanding of FP and modern contraception methods, they rarely translated into FP practices, attributed to negative perceptions and beliefs regarding FP (23). Knowledge and understanding were significant, but it has been reported that it does not contribute to the predicted behaviours (21). Other factors might influence behaviours, such as culture, peer pressure, sources of information, religion, emotions, and beliefs. Conversely, although the level of knowledge on FP was reasonably satisfactory among women in Cameroon, the rate of contraceptive usage.

Raub's women achieved a mean of good attitude level towards FP; hence, they may have positive attitudes towards contraception. Similarly, women in Serdang mostly favoured contraception (12). In contrast, women in suburban Terengganu had an unfavourable attitude towards FP (19); despite having negative attitudes towards contraception, Northern Turkey's women rate of using FP was high (24). Hence, there was no direct relationship between attitude and practice of FP.

Raub's women's good attitude towards FP may be due to good communication among spouses. They had a better idea of contraception and prevented any negative perception of modern contraception. Furthermore, men's engagement in health education sessions in the clinic would help increase their understanding and knowledge on FP and promote better communication between couples. This strategy may minimise their negative perception of the use of FP by their wives (25). Malaysia's culture and religion have made man the head of the household, women's reproductive rights and choices may remain a challenge in the nation. The unfavourable attitudes of men are part of the current gender issues to be addressed by FP service providers.

Even women wanted control over the selection of the FP methods. Most of them wanted their healthcare providers to be involved in the decision-making process. They also wanted to have comprehensive information about the options and services available and their adverse effects (26). Acknowledgement among couples to have children as God's will, attitudes towards FP, awareness of different approaches, and awareness of the side effects or adverse reactions of different methods were among the contributing factors of current contraceptive use (27).

Raub's women had a poor practice of FP comparable to women in Serdang with 38.4% (12), a suburban area in Terengganu with 38.7% (19) and a rural village in Kelantan with 31.8% of prevalence of FP practices (11). Contrarily, FP practices were highly prevalent among women in Quetta, Pakistan (28). Lack of health education on FP among women may be the main reason for the poor practice of FP. More adapted health education and counselling interventions among women should be carried out to empower women to utilise FP as a solution.

Regarding Raub's women FP practice, a scattered response was identified on the need for frequent visits to the FP services centre. Lack of depth of practice of FP could be improved by advertising using other sources of highly influential initiatives rather than the health centre as the primary source of in-depth knowledge and awareness of modern contraception methods. Integrating information and social marketing strategies may be an effective way of tackling this issue (21). The poor practice of FP may be due to multiple barriers such as myths, fear of side effects (23), failure to obtain a desirable method of contraceptive, and bad experience (11). Then, it is essential to enhance women's awareness and understanding of modern FP to minimise misunderstanding about FP's significance and increase the use of modern FP.

In this study, age, marital status, employment, income per year, level of education, ethnicity, and religion showed a positive association between KAP of FP among

women in Raub, Pahang. Those women of reproductive age >30 practised FP better than those with <18 years (14). This may be due to age increment that affects women's awareness, attitude, and practice towards FP. Besides, as age increased, the desire to have more children increased, so they decided to use FP. However, this study focused on women who attended KKIA Raub; a small group as the participants and only married women aged 18 – 49 were recruited. The women from a different area of Raub may have had different perspectives and experiences.

Annual income significantly affected their FP practices as women with better income per year may have a better FP service. In contrast, a study in Serdang reported no significant difference between income and FP practice and suggested that the financial problem will rise if unplanned pregnancies occur (12). However, women in Ethiopia reported that their higher average monthly income groups used FP better than their lower average monthly income (14).

Education showed a significant association with FP practices among women in Raub, Pahang. Additionally, a study reported that the education level was significantly correlated with contraceptive use as most participants had tertiary education and were exposed to FP (22). However, a study among women in Serdang, Selangor, reported no significant association between education and practices of FP (12). Most participants had tertiary reinforce women's fundamental education aptitudes and knowledge. This reinforcement will enable women to grow socially and financially and be freer instead of being needy just on their male accomplices. Future FP decisions should include men and women progressively. Besides, information on FP, including reproductive health education for both men and women, was significant. Men played a vital role in current FP practices as they dominate decision-making but were not well informed about the modern FP method. An interventional ethnicity and religion showed a significant correlation with the knowledge and attitude of FP. Most Malays, which as Muslims, believe that children are a blessing and gift (11). After all, they may help in providing support to their parents in the future (11). According to the Fatwa (Islamic ruling), Muslims are not forbidden to control the number of children depending on their ability (27).

CONCLUSION

This current study showed that the mean of KAP of FP among women in Raub, Pahang was above the average. The factors that influence women's FP practices are multifaceted and challenging because of new surroundings. Malaysia is a developing country; it is essential to practice contraceptives because of rising living costs, particularly in urban areas. The knowledge on FP is widespread among the participants; however, it is more among educated women. Progressing inspiration

and spread of knowledge about FP measures is essential to improve contraception attitudes and practices.

ACKNOWLEDGEMENTS

The authors would like to thank the Faculty of Health Sciences, Universiti Teknologi MARA, Puncak Alam Campus, for the support and guidance. The authors would also like to thank all the staff at KKIA, Raub, Pahang for their sincere cooperation during the research process.

REFERENCES

1. World Health Organization Department of Reproductive Health Services. Improving access to quality care in family planning: Medical eligibility criteria for contraceptive use. *Eff Br mindfulness Interv acute pain Exp An Exam Individ Differ.* 2000;1:1689–99.
2. Kantorov6 V, Wheldon MC, Ueffing P, Dasgupta ANZ. Estimating progress towards meeting women's contraceptive needs in 185 countries: A Bayesian hierarchical modelling study. *PLoS Med.* 2020;17(2):e1003026.
3. Salisbury P, Hall L, Kulkus S, Paw MK, Tun NW, Min AM, et al. Family planning knowledge, attitudes and practices in refugee and migrant pregnant and post-partum women on the Thailand-Myanmar border - A mixed methods study. *Reprod Health.* 2016;13(1):1–13.
4. Ganatra B, Faundes A. Role of birth spacing, family planning services, safe abortion services and post-abortion care in reducing maternal mortality. *Best Pract Res Clin Obstet Gynaecol.* 2016;36:145–55.
5. Say L, Chou D, Gemmill A, Tunzulp LI, Moller AB, Daniels J, et al. Global causes of maternal death: A WHO systematic analysis. *Lancet Glob Heal.* 2014;2(6):323–33.
6. Chaitkin, M., M. Schnure, D. Dickerson, and S. Alkenbrack. 2015. How Ghana Can Save Lives and Money: The Benefits of Financing Family Planning through National Health Insurance. Washington, DC: Futures Group, Health Policy Project. TT -. 2015;(June 2015).
7. Renjhen P, Kumar A, Pattanshetty S, Sagir A, Samarasinghe CM. A study on knowledge, attitude and practice of contraception among college students in Sikkim, India. *J Turkish Ger Gynecol Assoc.* 2010;11(2):78–81.
8. Cleland J, Bernstein S, Ezeh A, Faundes A, Glasier A, Innis J. Family planning: the unfinished agenda. *Lancet.* 2006;368(9549):1810–27.
9. Nansseu JRN, Nchinda EC, Katte JC, Nchagnouot FM, Nguetsa GD. Assessing the knowledge, attitude and practice of family planning among women living in the Mbouda health district, Cameroon. *Reprod Health.* 2015;
10. Ahmad N, Peng TN, Kamarul P, Kamarul F. UNFPA

- ICOMP REGIONAL CONSULTATION Family planning in Asia and the Pacific: Addressing the challenges status of family planning in Malaysia. *Fam Life*. 2010;(December).
11. Bachok N, Abdul Razak A, Ismail NM, Hamzah TNT. Acceptance and knowledge of family planning among Muslim women in rural villages of Kelantan. *J Islam Med Assoc North Am*. 2007;39(3):109–16.
 12. Mansor MB, Abdullah KL, Oo SS, Akhtar K, Jusoh ASB, Ghazali SB, et al. The prevalence of family planning practice and associated factors among women in Serdang, Selangor. *Malaysian J Public Heal Med*. 2015;15(3):146–56.
 13. Sajid A, Malik S. Knowledge, attitude and practice of contraception among multiparous women at Lady Aitchison Hospital, Lahore. *Ann Vol Oct – Dec*. 2010;16(4):2008–11.
 14. Semachew Kasa A, Tarekegn M, Embiale N. Knowledge, attitude and practice towards family planning among reproductive age women in a resource limited setting of Northwest Ethiopia. *BMC Res Notes*. 2018;11(1):7–12.
 15. Naqvi S, Hashim N, Zareen N, Fatima H. Knowledge, attitude and practice of parous women regarding contraception. *J Coll Physicians Surg Pak*. 2011 Feb 1;21(2):103-5.
 16. Tilahun T, Coene G, Luchters S, Kassahun W, Leye E, Temmerman M, et al. Family planning knowledge, attitude and practice among married couples in Jimma Zone, Ethiopia. *PLoS One*. 2013;8(4):1–8.
 17. Mahadeen AI, Khalil AO, Hamdan-Mansour AM, Sato T, Imoto A. Knowledge, attitudes and practices towards family planning among women in the rural southern region of Jordan. *East Mediterr Heal J*. 2012;18(6):567–72.
 18. Handady SO, Naseralla K, Sakin HH, Alawad AAM. Knowledge, attitude and practice of family planning among married women attending primary health center in Sudan. *Int J Public Heal Res*. 2015;3(5):243–7.
 19. Nazri Shafei M, Shaharudin Shah M. 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*. 2012;02(09).
 20. Oo MS, Ismail NBM, Ean WR, Hamid HA, Affendi NR. Knowledge, attitude and perception of contraception among medical students in Universiti Putra Malaysia. *Malaysian J Public Heal Med*. 2019;19(2):11–9.
 21. Lincoln J, Mohammadnezhad M, Khan S. Knowledge, attitudes, and practices of family planning among women of reproductive age in Suva, Fiji in 2017. *J Women’s Heal Care*. 2018;07(03).
 22. Yee LM, Simon MA. The role of health literacy and numeracy in contraceptive decision-making for urban Chicago women. *J Community Health*. 2014;39(2):394–9.
 23. Wallace HJ, McDonald S, Belton S, Miranda AI, da Costa E, da Conceicao Matos L, et al. What influences a woman’s decision to access contraception in Timor-Leste? Perceptions from Timorese women and men. *Cult Heal Sex*. 2018;20(12):1317–32.
 24. Avci IA, Cavusoglu F, Aydin M, Altay B. Attitude and practice of family planning methods among Roma women living in northern Turkey. *Int J Nurs Sci*. 2018;5(1):33–8.
 25. Adelekan A, Omoregie P, Edoni E. Male involvement in family planning: Challenges and way forward. *International Journal of Population Research*. 2014;2014.
 26. Dehlendorf C, Levy K, Kelley A, Grumbach K, Steinauer J. Women’s preferences for contraceptive counseling and decision making. *Contraception*. 2013;88(2):250–6.
 27. Najimudeen M, Sachchithanatham K. An insight into low contraceptive prevalence in Malaysia and its probable consequences. *Int J Reprod Contraception, Obstet Gynecol*. 2014;(September 2014):493–6.
 28. Hameed S, Haq NU, Haque N, Nasim A, Riaz S, Tahir M, et al. Knowledge, attitude and practices (KAP) regarding family planning services among married women of Quetta Pakistan. *International Journal of Research and Reports in Gynaecology*. 2019; Mar 30:1-2.