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Knowledge, Awareness and Perception on Contraception Among Women of Reproductive Age Attending Senawang Health Clinic

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ABSTRACT

Introduction: Sexual and reproductive health (SRH) are fundamental human rights, which lies with the right of individuals and couples to freely decide the number, timing and spacing of children. Moreover, every individual should receive adequate information and knowledge to make those decisions, and the right to attain the highest standard of SRH. **Objective:** The aim is to measure the knowledge, awareness, and perceptions on contraception among WRA in Senawang Health Clinic. **Material & Methods:** This research is a Cross-Sectional Questionnaire-Based Study Design. A descriptive study with a quantitative approach in gathering data was conducted. A simple random sampling was used in this study to obtain the target participants. The target population are WRA which was selected based on their age ranging between 18 to 49 years.The data analysis was done using the SPSS version 22.In this study, descriptive data was expressed as mean. One-way ANOVA was used for analysis of normally distributed variables. A value of $p < 0.05$ are considered statistically significant.The data collected was analysed to find the differences between the means of the independent variables mentioned in this study. **Results:** The total numbers of participants involved in this study were 251. The mean for the total knowledge score is 2.02 (SD±0.50) and the ethnicity had no statistically significant association. Mean for the total awareness score was 3.55 (SD±0.63) and all sociodemographic characteristics showed statistically significant association with awareness. The mean for the total perception score is 3.58 (SD±0.48) and the ethnicity did not show statistically significant associations with perception. **Conclusion:** The study showed that the KAP about contraception among WRA attending Senawang Health Clinic were unsatisfactory.

Keywords: Knowledge; Awareness; Perception; Contraception; Women of Reproductive Age

INTRODUCTION

Contraception is defined as the intentional prevention of conception using various devices, sexual practices, chemicals, drugs, or surgical procedures. Many elements need to be considered by women, men, or couples at any given point in their lifetimes when choosing the most appropriate contraceptive method (Wijaya *et al.,* 2022). Thus, any device or act whose purpose is to prevent a woman from becoming pregnant can be considered as a contraceptive (Jain & Muralidhar, 2011). According to World Health Organization (WHO), World fertility and Family Planning (2020), contraception assists couples and individuals to achieve their reproductive goals and enables them to exercise the right to have children by choice. According to WHO, Women of Reproductive Age (WRA) refer to all women aged between 15 to 49 years.

The growing use of contraceptive methods has resulted in improvements of health-related outcomes such as decline in unintended and high-risk pregnancies, and in maternal and infant mortality. It also improves both educational and economic outcomes especially among girls and women. In Malaysia, according to the Malaysian Population and Family Development Survey (2019), contraception prevalence rate (CPR) had increased from 5.3% in year 1966 to 26.3% in year 1974, and subsequently reported that the CPR was 52% in 1984 and since then the data has remained stagnant till the year 2014. An unplanned pregnancy is a significant concern intimately linked to public health because of the negative health outcomes for both women and their own newborns (Abdel-Haleem, Amasha & Salama, 2019).

Knowledge, Attitudes, and Perception (KAP) surveys aids a selected population to gather information about what is known, what they believe, and what is being done on a particular topic and tools (Perumal, 2016).In this KAP surveys, data are collected by the researcher using a structured, and standardized questionnaire to identify knowledge gaps, cultural beliefs, or behavioral patterns that may

facilitate understanding and action required to be carried out. Contraceptive use is often influenced by the individual characteristics such as age, religious background, wealth, educational level, and income percentage. When studying the socioeconomic and sociodemographic characteristics of the population of women who are using contraception, an insight can be gained to search the cause of the low CPR in Malaysia.

The association between the sociodemographic characteristics and the knowledge, awareness, and perception on contraception use among WRAattending Senawang Health Clinic had never been examined before.By conducting this study, a data on the problems and the barriers that WRA encounters which interferes the sexual related health (SRH) maintenance and causes of CPR decline among women in reproductive age can be identified..

Objectives

To deliberate the association between knowledge on contraception use and the socio-demographic characteristics among WRA attending Senawang Health Clinic

To investigate the association between awareness on contraception use and the socio-demographic characteristics among WRA attending Health Clinic

To deliberate the association between perception on contraception use and their socio-demographic characteristic among WRA attending Senawang Health Clinic

METHODOLOGY

A Cross-Sectional Questionnaire-Based Study Design which was conducted prospectively between the months of January till the end of study. A survey was carried out amongst the target populations of this study whereby it was conducted in Senawang Health Clinic. A descriptive study with a quantitative approach in gathering data was conducted by distributing questionnaires to the target populations who are representatives of the entire group.A self-administered questionnaire was adopted from previous literature andpermission to use the research instrument was obtained from the corresponding author Ahmad et al., 2015. A simple random sampling was used in this study to obtain the target participants. The target population are WRA which was selected based on their age ranging between 18 to 49 years.

The survey comprises of 4 elemental questions that valuates (1) Social demographic characteristics; (2) Knowledge on contraception among respondents; (3) Awareness on contraception among respondents; and (4) Perception on contraception among respondents. In section (1), age, ethnic, level of education, marital status and average household income will be assessed. In Section (2),the first question encounters the list of methods of contraception available in Malaysia.If the respondent knows 5 or more methods, 1 point was given for this question.The rest of the questions in this section measures the knowledge on contraception. Each correct response was given 1 point and a score of 0 was given to wrong and 'do not know' response. Respondents with a total score of 5 or more were considered as having good knowledge on contraceptive use in Malaysia. In this section, a score ranging from 0 to 8 will be yielded.Section (3) and (4) was scored based on a 5-point ranging scale from 1 (strongly agree) to 5 (strongly disagree). Section (3) composes questions to assess the awareness about the contraception. The range of total scores were from a minimum of 7 points up to a maximum of 35 points. Respondents with scores less than 25 points was considered as having low awareness, while scores more than 25 points was considered has having high awareness. In this section, scores for the questions number 3, 5 and 6 are reverse scoring items. Questions in section (4) were used to assess the perception of the respondents. The total score ranges from a minimum of 10 points up to a maximum of 50 point. Respondents with scores 35 and above were considered to have a good perception towards contraception. In section (4), scores for the questions

number 1, 5 to 7, and 9 to 10 are reverse scoring items.

The data analysis was done using the IBM SPSS Statistics version 22.In this study, descriptive data was expressed as mean. One-way ANOVA was used for analysis of normally distributed variables. A value of $p < 0.05$ are considered statistically significant. The data collected was analysed to find the differences between the means of the independent variables mentioned in this study.

Ethical approval

Ethical approval for this study was obtained from the Medical Research and Ethics Committee (MREC), Ministry of Health Malaysia with reference no NMRR-18-1161-41808(IIR) dated 12th June 2018.

RESULTS

The total numbers of participants involved in this study were 251. A total of 290 questionnaires were distributed. The overall response rate of this survey was 100% and incomplete questionnaire was rejected. Distribution on the scores of knowledge domain on contraception among WRA is shown in Table 1.

Table 1: Distribution on the Scores of Knowledge Domain on Contraception among WRA

No.	KNOWLEDGE DOMAIN				Correct/Yes	Wrong/No	I don't know
1.	Have you ever heard of the contraceptive method?				243 (96.8%)	0 (0%)	8 (3.2%)
	No.	KNOWLEDGE DOMAIN					
			Yes	No			
	a.	Oral Contraceptive Pill	203 (80.9%)	48 (19.1%)			
	b.	Hormonal Implant	49 (19.5%)	202 (80.5%)			
	c.	Contraceptive Patch	21 (8.4%)	230 (91.6%)			
	d.	Copper IUD	135 (53.8%)	135 (53.8%)			
	e.	Injectable DepoProvera	200 (79.7%)	51 (20.3%)			
	f.	Condom	204 (81.3%)	47 (18.7%)			
	g.	Tubal ligation	104 (41.4%)	147 (58.6%)			
	h.	Vaginal ring	31 (12.4%)	220 (87.6%)			
2.	The risk of getting certain types of cancer in women can be reduced by birth control pills				47 (18.7%)	130 (51.8%)	74 (29.5%)
3.	A woman will not be able to get pregnant for at least two months after she has stopped taking birth control pills				44 (17.5%)	85 (33.9%)	122 (48.6%)
4.	Male condoms can protect against sexually transmitted diseases				189 (75.3%)	9 (3.6%)	53 (21.1%)
5.	Common side effects of contraceptive pills include weight gain and mood swing				137 (54.6%)	21 (8.4%)	93 (37.1%)
6.	It is safe to have sex during infertile period (during day 1 to day 12)				57 (22.7%)	67 (26.7%)	127 (50.6%)
7.	There is an increased risk of breast cancer in women taking estrogen-containing oral contraceptive				119 (47.4%)	22 (8.8%)	110 (43.8%)
8.	In order to get birth control pills, a woman must have a pelvic exam				39 (15.5%)	41 (16.3%)	171 (68.1%)

The mean for total knowledge score on contraception among WRA is 2.02 (SD±0.50).A total of 153 (60.95%) WRA attending Senawang Health Clinic obtained a score of less than 5, indicating that they

have poor knowledge of contraception while only 98 (39.0%) WRA scored more than 5 indicating that they have good knowledge of contraception. A one-way ANOVA test was used to identify the association between the extent of knowledge on contraception among WRA with different age groups. Based on the results, there was a statistical association between the age of WRA. The results revealed that WRA between 26 to 30 years had scored higher total knowledge mean, 1.61(SD ± 0.496).

The association between the extents of knowledge on contraception among WRA with different ethnicity. The association between the ethnicity of the participants and their total knowledge score on contraception was recorded and it was not statistically significantly associated as p>0.05. However, the results showed that Chinese participants had scored higher total knowledge scores compared to other ethnicities with a mean of 1.42 (SD±0.49). Based on the data obtained to measure the level of education among WRA shows that there was a statistical significance of $p<0.05$. The participants with higher education levels showed a higher total knowledge score of 1.68 (SD±0.46), while participants with no formal education and primary level education showed to have low total knowledge scores, 1.00 (SD±0.00).

The association between the extent of knowledge on contraception among WRA with marital status was measured and data showed a statistically significant association between marital status and the total score of knowledge as $p<0.05$. In addition, the results show that single participants scored the highest total knowledge points 1.47 (SD±0.50) compared to married, divorced, and widowed participants. Next, based on the results, it shows a significant association between average household income and the total score of knowledge as $p<0.05$. The total knowledge score with a mean of 1.93 (SD±0.26) was higher among participants who earn an average household income between RM 50001 to RM 6000, while the lowest total knowledge score was among participants whose average household income was less than RM 2000 showing a mean score of 1.10 (SD±0.31).

Table 2 shows the distribution of the scores of awareness domain on contraception among WRA. In the obtained results, there was a statistical association between the age of WRA and their total awareness score as $p<0.05$

Table 2: Distribution on the scores of awareness domain on contraception among WRA

No	AWARENESS DOMAIN	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
1	Only women are responsible to use contraceptive method	9 (3.6%)	19 (7.6%)	45 (17.8%)	84 (33.5%)	94 (37.5%)
2	Contraceptive methods bring more damage than benefit to health	9 (3.6%)	34 (13.5%)	125 (49.8%)	66 (26.3%)	17 (6.8%)
3	Contraceptive methods can protect the health of family and society*	4 (1.6%)	19 (7.6%)	78 (31.1%)	102 (40.6%)	47 (18.7%)
4	The use of contraceptive methods in young people will increase the risk of infertility in the future	10 (4.0%)	25 (10.0%)	144 (57.4%)	39 (15.5%)	33 (13.1%)
5	Contraceptive pills do not guarantee 100% contraception*	7 (2.8%)	28 (11.2%)	78 (31.1%)	94 (37.5%)	44 (17.5%)
6	I am ready to change to another safer method of contraception if the usage of current method causes side effects*	16 (6.4%)	20 (8.0%)	63 (25.1%)	70 (27.9%)	82 (32.7%)
7	Having a discussion about contraception with my spouse is considered embarrassing	32 (12.7%)	27 (10.8%)	42 (16.7%)	64 (25.5%)	86 (34.3%)

The mean for the total awareness was 3.55 (SD±0.63).A total of 124 (49.4%) WRA obtained score of less than 25, indicating that they have low awareness on contraception while 127 (50.6%) WRA scored 24 and above indicating that they have high awareness on contraception use. Furthermore, the results can be interpreted that WRA between 26 to 30 years had scored higher total awareness scores compared to other age groups with a mean score of 1.75 (SD±0.43).

As for the association between ethnicity of the participants and their total awareness score on contraception, there was statistically significant association as $p<0.05$. The mean plot reveals that Malay participants had scored higher total awareness scores 1.6250 (SD±0.48) compared to participants with another ethnicity. For level of education among WRA, data showed that there was a statistical significance as $p < 0.05$. Referring to the above results, participants with higher education level showed a higher total awareness score 1.77 (SD±0.42) while participants with primary education level showed to have low total awareness scores with a mean score of 1.07(SD±0.26).

Furthermore, the results showed there was a statistical significance association between marital status and the total score of awareness as $p<0.05$. In addition, the results showed single participants scored highest total awareness points with mean of 1.64 (SD±0.48) compared to married, divorced and widowed participants. Based on the results, the graph shows a significant association between average household income and the total score of awareness as p value was $p<0.05$. The total awareness score was higher among participants who earn an average household income more than RM 7001, while lowest total awareness score was among participants whose average household income was less than RM 2000 with a mean of 1.28 (SD±0.45).

Table 3 shows the distribution on the scores of Perception domain on contraception among WRA. The mean for the total perception score is 3.58 (SD±0.48). Based on the results, a total of 103 (41.0%) WRA attending Senawang Health Clinic obtained a score of less than 35, indicating that they have poor perception on contraception while 148 (59.0%) WRA scored 35 and above indicating that they have good perception on contraception use.

Table 3: Distribution on the Scores of Perception domain on Contraception among WRA

No	PERCEPTION DOMAIN	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1	**According to religious teaching, the use of contraceptive method is considered a permissible action***	8 (3.2%)	11 (4.4%)	91 (36.3%)	95 (37.8%)	46 (18.3%)
2	**It is unnecessary to purchase contraceptives**	15 (6.0%)	28 (11.2%)	55 (21.9%)	64 (25.5%)	89 (35.5%)
3	**Courage is needed to purchase condoms from pharmacies, conventional shops or dispensaries**	8 (3.2%)	25 (10.0%)	42 (16.7%)	86 (34.3%)	90 (35.9%)
4	**Using condoms will create less sexual pleasure during sexual intercourse**	15 (6.0%)	19 (7.6%)	160 (63.7%)	39 (15.5%)	18 (7.2%)
5	**Contraceptives may reduce fear of unplanned pregnancy and afford woman the freedom to enjoy sexual relationship fully***	5 (2.0%)	10 (4.0%)	117 (46.6%)	91 (36.3%)	28 (11.2%)

6	**Contraceptives allow women to pursue higher education by delaying pregnancy and gain some measure of economic security***	6 (2.4%)	11 (4.4%)	67 (26.7%)	96 (38.2%)	71 (28.3%)
7	**It is complicated to use contraceptive methods***	3 (1.2%)	5 (2.0%)	51 (20.3%)	70 (27.9%)	122 (48.6%)
8	**Sex education including contraception should be introduced in early age**	1 (0.4%)	2 (0.8%)	21 (8.4%)	54 (21.5%)	173 (68.9%)
9	**Health care providers must provide counselling on contraceptive methods, mechanism of action, best time to use and possible side effects to all women***	6 (2.4%)	19 (7.6%)	24 (9.6%)	69 (27.5%)	133 (53.0%)
10	**Change in male attitude to participate in contraception, may increase contraceptive prevalence in some areas***	34 (13.5%)	41 (16.3%)	128 (51.0%)	18 (7.2%)	30 (12.0%)

Reverse scoring items

A one-way ANOVA test was used to identify the association between the extent of perception of contraception among WRA and different age groups. The obtained results reveal that there was a statistically significant association between the age of WRA and their total perception score as $p < 0.05$. The result showed that WRA between 21 to 25 years had scored higher total perception scores compared to other age groups by showing a mean of 1.78(SD±0.42).

The association between the ethnicity of the participants and their total perception score on contraception reveals that there was no statistically significant association as $p>0.05$. However, the result interprets those Chinese participants had higher total perception scores1.65(SD±0.47) compared to participants of other ethnic. Next, a One-way ANOVA Test was used to identify the association between the extent of perception of contraception among WRA and their different level of education. The data shows that there was a statistical significance of $p <0.05$. The results say that participants with higher education levels showed a higher total perception score of 1.77 (SD±0.42).

Association between marital status and total scores on perception was also measured and based on the results, there was a statistically significant association between marital status and the total score of perception as $p<0.05$. In addition, based on the result, single participants1.71(SD±0.45) scored the highest total perception points compared to married, divorced, and widowed participants. Association between average household income and total scores on perception was also analyzed by using ANOVA Test. Referring to the data obtained there was a significant association between average household income and the total score of perception as $p<0.05$. The total perception score was higher among participants who earn an average household income between RM 6001 to RM 7000 while the lowest total awareness score was among participants whose average household income was less than RM 2000 with a mean score of 2.06 (SD±0.45).

DISCUSSION

Knowledge

This study was conducted in view that the lack of local literature with regards to the topic of KAP on contraception among WRA. Based on the literature review, in Malaysia, previous investigators were more interested to conduct this research among medical students and healthcare providers and designing

interventions that address the prevailing gaps. However, since LPPKN reported that the CPR in Malaysia is 52.3% and has been stagnant since the year 2014, it is crucial to conduct this study among WRA in-order to measure the KAP on contraception to reveal whether sociodemographic becomes a significant factor in exhibiting a low CPR in Malaysia. It is very important for young adults' to aware on the worldwide issue of HIV/AIDS (Abaño, 2018).

The results obtained from this study revealed that 60.95% (n=153) of WRA have poor knowledge on contraception while only 39% (n= 98) have good knowledge of contraception. The analysis of this study revealed that 96.8% (n= 243) of respondents have heard of some kind of contraceptive methods available in Malaysia and it revealed that a there was a higher rate of knowledge of contraceptive methods such as condoms (81.3%) and oral contraceptive pills (80.9%) followed by injectable Depo-Provera (79.9%) and copper IUDs (53.8%).

These results are in accordance with a previous study conducted in the Dharan Sub-Metropolitan City by researchers Thapa *et al.*, 2018 and by Kara et al., 2019 in Dodoma, Tanzania. Besides, results from a study carried out in Western Kenya among women aged between 15 to 49 supported our results. (Mogere, 2015). A study by Gosavi *et al.*, 2016 in Singapore revealed that most participants in Singapore uses condom as contraceptive methods. The findings of this study showed 18.7% (n= 47) of respondents know that the risk of getting certain type of cancer in women can be reduced by taking birth control pills. These results weresimilar to a study conducted by local researcher Ahmad *et al,* 2015 among senior pharmacy students. Respondents were mostly unaware that women will not be able to get pregnant for at least two months after discontinuing birth control pills and this result were in contrast to the results from a study conducted by Azmi *et al.*, (2020).

Study results also shared similar findings with Ahmad et al., (2015), where most of their subjects were unable to give correct answers to questions “It is safe to have sex during infertile period” and “In order to get birth control pills, a woman must have a pelvic exam” but comparing to the outcomes from the study conducted by Azmi *et al.*, (2020). our findings were contradictory to their results.On the whole, this study has measured the knowledge on contraception among WRAnot only based on knowing the methods available but also ability to know general information on contraceptive use (Hall *et al.*, 2013). A study conducted in Ethiopia by Bekele *et al.*, (2020) also reported that less than half, (43.4%), of women had good knowledge on contraception and women in the age group between 25 to 34 years were more likely to have good knowledge on contraception than those aged between 18 to 20 years.

Majority of our participants attending Senawang Health Clinic were Malays, followed by Indian, Chinese and others with mean of total scores on knowledge as 1.40 (± 0.493), 1.39 (± 0.493), 1.41 (± 0.497) and 1.25 (± 0.442) respectively. In contrast to the results obtained in our study, Oo *et al*. (2019) stated that there was a significant association between ethnicity with the level of knowledge. The study revealed that Chinese participants had scored higher total knowledge scores compared to other ethnics. This was similar to a study conducted by Oo *et al.*, (2019) which also showed that Chinese medical students in Universiti Putra Malaysia had a higher knowledge score on contraception. Despite having distinction results from our study, their results also supported the statistic where contraceptive knowledge scoreswere highest among Chinese participants. The distinction result obtained in our study could be due to the difference in the target participants in comparison to the study conducted by Oo *et al.*, (2019) and Wong, (2012). To sum up Ethnic-specific reproductive health intervention is important to meet the reproductive and sexual health needs of young women in multi-ethnic community because knowledge disparities are likely to affect behaviours and, ultimately their reproductive health outcomes among WRA.

Most of the participants in our study have education up to college or university level. The analysis of the result generated a strong statistically significant association between knowledge on contraception and

the level of education among WRA. Researcher Wong, 2012) shared a similar finding in his study conducted among students in a public university in Klang Valley. In this study, the knowledge on contraception shows a gradual increase from participants with no formal education to having college or university level education. Furthermore, local researcher Shafei and Shaharudin, (2012) also mentioned that having low knowledge on contraception use could be due having education level up to secondary level.

Single participants had highest total mean score of knowledge 1.46 (± 0.50) compared to married participants 1.38 (± 0.48), followed by divorced 1.30 (± 0.48) and widow 1.07 (± 0.267) participants. However, the results obtained from a published study by Eniojukan, (2016) among university students and staff members did not reveal similar outcomes. In his study married participants shows to have good knowledge on contraceptives while singles show to have poor knowledge on contraceptives. Another study conducted by Oo *et al.*, (2019) among senior pharmacy students in Malaysia also showed a significant relationship between marital status and scores on knowledge.Despite exhibiting a significant association, this study also supported that married participant obtained good knowledge on contraception compared to singles. The possible explanation is that respondents who are married were more likely to be sexually active.

Participants with household average between RM 5001 to RM 6000 shows highest total mean score. This indicates that participant has good knowledge on contraception, followed by participants earning between RM 6001 to RM 7000. In addition, participant earning less than RM 2000 has the least mean score of knowledge. In contrast to this result, a local researcher Wong, (2012), mentioned that there has no significant differences with regard to mean total knowledge score between females with less than RM2000 as their monthly income and those who had more than RM2000 as their monthly income. In Malaysia, researcher Anwar *et al.*, (2018) stated, pregnancy is more common among low-income young women. His study stated that the majority of those who experienced premarital pregnancy were from households with less than RM2000, their monthly income and with low educational level. Another study conducted in Malaysia indicates that low CPR is more common, among the less socio-economically individuals (Wong, 2012).

Awareness

The results obtained from this study revealed that 49.40 % (n=124) of WRA have low awareness on contraception while 50.6 % (n=127) has high awareness on contraception.The findings in our study reveals that 37.5% (n= 94) participants strongly disagreed that only women are responsible to use contraceptive method. This finding was similar to the findings from a study conducted by Azmi *et al*. (2020). Surprisingly almost half (49.8 %) of total participants believes that contraceptives bring more damage than benefits to health. These findings are similar to a published researcher Najafi-Sharjabad, (2013) where fear of side effects and the belief of health damage were reported as the major reasons for not using any contraception in Pakistan. In a study done by Ahmad, (2015) stated that that approximately half of the respondents were unsure whether the use of contraception will increase the risk of infertility. These results are in contrast to another report which revealed that 83% female students did not relate contraception with infertility (Hogmark et al., 2013). In addition, 34.3% (n= 86) participants have strongly disagreed that having a discussion about contraception with my spouse is considered embarrassing, while there are still 12.7% (n= 32) participants feels embarrassed to talk about contraception with their spouse.

According to a study conducted by Fatimah *et al.*, (2019) among public university students in Malaysia their awareness oncontraception use was reported to be low. Similarly, Thapa and Shrestha, (2018) mentioned that there was an association between age and awareness on contraception among WRA in

selected Wards of Dharan Sub-Metropolitan City. Respondents of age group 20-34 years had more positive attitude than among the other age group.

In our study there was a statistically significant association between ethnicity of the participants and their total awareness score on contraception. This result was unexpected as this study did report that there were no significant association between ethnicity and knowledge on contraception. Our study also reportedthat the total awareness score was high among the Chinese participants. This was similar to a study conducted by Adefalu *et al.*, (2018) whereby his result reported that ethnicity disparity and awareness on contraception are associated among participants in North-West Nigeria. Local researcher Renjhen *et al.*, (2016) reported that there were no statistically significant association between awareness on contraception and ethnic disparity.

In North-West Nigeria, with regard to educational attainment, it was discovered that the higher the educational level completed, the higher the proportion of members that were aware of contraceptives (Adefalu *et al.*, 2018). In a study conducted among female university students, majority of the participants claimed that they are aware of contraception and participants with higher education level showed a higher total awareness score (Bankole *et al.*, 2016).Study was supported with analysed result from a similar study conducted by Akintade *et al.*, (2012) whereby he mentioned that the level of awareness on contraception among university students was high (98.3%).

This study also showed that marital status and average household income has a significant association between awareness on contraception. Research conducted by Adefalu *et al.*, (2018), results from the chi-square analysis revealed that the difference between the proportions of married people and single people aware of contraceptives was not statistically significant and the result was in contrasts to the result from this study.

In this study, the total awareness score was higher among participants who earn an average household income more than RM 7001.According to a study conducted by Megabiaw, (2012), it has been stated that contraceptive use is often influenced by such place of residence and wealth where the poor are the most disadvantaged and less likely to use contraceptives. This statement was supported by Adefalu et al., (2018), in which it was noted that while awareness was highest in the urban areas, awareness in the rural areas was actually higher than in semi-urban areas.

Perception

The results obtained from this study revealed that 41.0% (n=103) of WRA have low perception on contraception while 59.0% (n=148) has high perception on contraception. Based on the results, most participants (37.8%) agrees that according to religious teaching, the use of contraceptive method is considered a permissible action. Analysed results from a published study by a local researcher showed a similar result to our student. However, participants still hold negative perception on "courage is needed to purchase condoms from pharmacies, conventional shops and dispensaries" in which was supported by research by Azmi *et al.*, (2020) among pharmacy staff. However, in contrasts to results showed in Azmi *et al.*, (2020), our study showed that 63.7% of WRA were not sure if using condoms will create less sexual pleasure during sexual intercourse.Nevertheless, result obtained from a study conducted by Azmi *et al.*, (2020) and Ahmad *et al.*, (2015) was similar to the result obtained in this study in which majority 38.3 % of participants agrees that contraceptives allow women to pursue higher education and gain some measure of economic security by delaying pregnancy.

In this study, majority participants in the age group between 21 to 25 years presents positive perceptions towards contraception use. According to a study conducted by researcher Makenzius *et al.*, (2019), people of different ages tend to have different views about social issues due to diverse background and

their level of openness to social issues. Another study conducted among secondary school students in western Kenya by Rehnströmi *et al.*, (2019) stated the youngest age group who are between 13 to 15 years showed higher levels of stigmatizing perception towards abortion and contraceptive use than the older age groups. It appears that older secondary school students who are aged between 18 to 21 years have more supportive perceptions towards contraceptive use.

The scores on perception are still low among Indians and participants who falls into others categories. In a study conducted by Najafi-Sharjabad *et al.*, (2013), found that adolescents from Nepal and India are reluctant to go to clinics and pharmacies to obtain contraceptives. They fear to be recognized by providers or people in their community and would negatively label them as sexually active.Thus, the lack of courage in needing to purchase contraceptive shows that there are still lack on perception towards contraception. There are limited studies available in Malaysia to discuss regarding the results obtained from our study since there were not many researches performed to measure the association between different ethnicity and perceptions on contraception.

Participants with higher education level showed a higher total perception score while participants with no formal education showed to have low total perception scores. Similarly, Najafi-Sharjabad *et al.*, (2013) supported that women's education are one of the important factors that influence contraceptive use. A study in Nepal showed that older women who are 35 years and above, educated, living in urban, working in the business were more likely to use modern contraceptive methods (Sharma *et al.*, 2011).

Surprisingly, singles showed the highest mean scores of perceptions on contraception while the lowest mean score were reported among the widow. In a study conducted by Najafi-Sharjabad *et al.*, (2013) reported that a survey of South Asian women showed that unmarried women were more likely to be using contraception than married women.

In this study, the total perception score was highest among participants who earns average household income more than RM 7001.Althoughthese studies have been limited in geographic scope a review of studies of young women, primarily unmarried women in rural Africa, identified lack of access to family planning education and to information concerning how contraceptive methods works. Researcher Sámano *et al.*, (2019) justified that participant dropped out of school or had not complete middle school due to financial resources may show to have poor insight towards SRH including knowledge on contraception and develop negative perception towards the use of contraception.

CONCLUSION

In conclusion, the findings showed that the KAP about contraception among WRA attending Senawang Health Clinic were unsatisfactory. Approximately 45 % of the community are still unaware and reveals poor perceptions towards subject related to contraception use. Their lack of KAP can lead to rise towards misunderstanding the significance of contraception use. It is definite that sociodemographic characteristics becomes one of the major barriers for demonstrating a low CPR in Malaysia. This study provides valuable insights about the association between sociodemographic characteristics and the KAP on contraception among WRA attending Senawang Health Clinic.

Limitations

The conclusion was drawn from a convenience sample representing WRA attending Senawang Health Clinic. These findings might not be generalized for all WRA all over Malaysia. Moreover, our findings were limited to only WRA attending Senawang Health Clinic during the implementation of the Conditional Movement Control Order (CMCO) by the government of Malaysia and further in-depth study need to be conducted to examine women KAP on contraception use. Further research is required to

establish wide-ranging outcomes of this study at several tertiary care hospital located Negeri Sembilan.

Conflicts of Interest

There was no conflict of interest to disclose, and no funding was received for this study.

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