KNOWLEDGE, ATTITUDES AND PRACTICES OF FAMILY PLANNING AMONG WOMEN ATTENDING KABUTARE DISTRICT HOSPITAL, RWANDA

1)KUBWAYO BIENVENU,
2) Dr. RUTAYISIRE Erigene, PhD,
3) MICHAEL Habtu, MSc in Public Health

ABSTRACT

Rwanda has been on the fast track to achieve major health improvement for its entire population. The government agency and non-government partners with the Ministry of Health (MoH) supports have decentralized Rwanda's health system and bring health services closer to the people and focuses also on family planning's efficacy in preventing unintended pregnancies, abortions and their health burden. The government's Economic Development and Poverty Reduction Strategies calls for increase contraceptive prevalence to 70% by 2016.The population growth rate presents a challenge for social and economic progress in the country as compared to its limited resources and low economic growth. The aim of this study is to determine the knowledge, attitude and practices of family planning among women attending Kabutare District Hospital. Result of this study may help healthcare policy makers to recognize gaps, control strategies in family planning and women awareness about their contribution to use family planning. A descriptive cross–sectional design methodology used quantitative approach is used. Sample size of 255 women is systematically selected where 15-49 years age group considered from Kabutare District Hospital. A structure questionnaire used to collect data from the sample. Statistical Package for the Social Sciences (SPSS) has been used for data analysis. Frequencies, percentage have used for descriptive statistics. The relationship between independent and dependent variables have estimated with chi-square test and odd ratio at 95% confidence interval. This study is ethically approved by Mount Kenya University ethical committee. Respondents' confidences were ensured. Descriptive analysis using frequency and proportions were computed. Pearson's chi-square test (p<0.05) was used to establish association between dependent variable (adherence) and independent variables. Multiple logistic regressions were also used to determine the independent factors associated with the practice of family planning methods. The respondents with good knowledge were 78.43% and with positive attitude were 75.29% about family planning. Most (74.51%) of the respondents had adequate practices on contraceptive methods. A good knowledge of women about family planning were 9.92 times more likely to use family planning than those with poor knowledge [AOR= 11.328; 95%CI= 4.103-31.272; p-value <0.001]. While attitude level of family planning among women attending Kabutare District Hospital [AOR= 6.494; 95%CI= 2.751-15.330; p-value <0.001] were significantly associated with adequate practice on family planning. Women attending Kabutare District Hospital with College and higher level of education [AOR= 0.089; 95%CI= 0.016-0.478; p-value <0.005]. Women attending Kabutare District Hospital with less or equal to three children [AOR= 5.355; 95%CI= 2.297-12.483; p-value <0.001]. Women who got information about family planning from media were statistically significant association practices [AOR= 6.176; 95%CI= 1.698-22.470; p-value <0.006]. The level of knowledge on family planning methods

among the population in Rwanda contribute to the practice of contraceptive methods because people with high knowledge are more likely to promotes family planning methods.
Knowledge, practices, family plannin

Background of the study

Globally in 2015, 64% of married or in-union women of reproductive age worldwide were using some form of family planning. In the least developed countries, the prevalence of contraceptive use was 40%, which is much lower compared to developed countries. The lower use of contraceptive use was observed in Africa (33%) while higher in Oceania (59%) and much higher in Northern America (75%) (U.N,. 2015).

It was previously documented that age, educational level, age at marriage, marital status, religion and beliefs were significantly associated with contraceptive usage. More recent study observed that participants aged 15-24 years had positive attitude towards FP use than participants aged of 25-34 years and above 35 years(Upadhayay *et al.*, 2017).

Contraceptive prevalence is projected to increase from 17 to 27 per cent in Western Africa, from 23 to 34 per cent in Middle Africa, from 40 to 55 per cent in Eastern Africa, and from 39 to 45 per cent in Melanesia, Micronesia and Polynesia. Yet unmet need for family planning is still projected to remain high in 2030, above 20per cent in all these regions(U.N, 2015)

A study conducted in Sudan revealed that reasons of FP uses include husband pressure, financial, and health condition. Concerning causes of rejection of FP, the majority of participants discontinued FP due to fear of side effect, and want more children and very few was due to religious beliefs(Handady, Naseralla, Sakin, & Alawad, 2015). A study conducted in Pakistan reported that 48.1% of women had poor knowledge about FP; however this was not associated with contraceptive use (Valley *P . et*., 2014).

In 2010 the coverage is 45 percent(RDHS, 2015).Similar report showed that Rwandan women are knowledgeable about FP in general. However, it is not well known whether the use of contraceptive in Rwanda, is due to knowledge and attitude about family planning among Rwandan Women. Therefore, the present study is designed to assess the level of knowledge, attitude and practice of modern family planning methods among women seeking health care at Kabutare District Hospital, Southern Province of Rwanda(Ayad & Hong, 2015).

Family planning level of practices in Rwanda is still low and unmet need has been continu to be a more pervasive problem in Sub Sahara Africa than in other world regions. Rwandans challenges in contraceptive use and providing family planning services such as myths, rumours and misperceptions and their side effects which persist effort to address them. In the 1960s, the purpose was to demonstrate and measure the desire of women to limit their births and their current use of contraception and Unmet need for family planning is the identification of women who may want to use a method of contraception to space or limit their births, but are not currently using(Ayad & Hong, 2015).

There are also gaps in sexual and reproductive health education in schools and then there is lack of decision-making power of women about the use of Family Planning, some women still have negative mindsets towards modern contraceptives for fear of side effects while some others especially rural women, are still embracing socio-cultural and religious perceptions which affect Family planning service demand by the population The national consensus on three children as the ideal family size would grow; approval of the use of modern contraceptives might remain an issue in several districts, in particular in those with large protestant communities. The larger majority of women in Rwanda do approve of the use of modern contraceptives, yet resistance is still strong in some protestant communities, which over the last decades together with the Catholic Church have established many faith-based health institutions(RDHS., 2014).

Rwanda governments' is committed to achieve SDGs by 2015 and has declared FP as national priority for poverty reduction and socioeconomic development of the country but the government economic development reduction strategy calls for increase in the contraceptive prevalence to 70 per cent by the year 2016.While structure change in health care and supply chains have led to noteworthy improvement in FP and other services, are still many challenges to overcome.

Nevertheless, the literature does not describe the effect of KAP of contraceptives methods, the partners do not always agree on the factors influencing KAP of family planning. It's against this background that is study was conducted to assess the effect of KAP of family planning in Rwanda, especially in Kabutare District Hospital, Rwanda.

Materials and Methods

Study Design, Setting and Population

Across-sectional study using quantitative method approach conducted to assess the knowledge and attitudes of family planning following practices among women attending Kabutare District Hospital.

In this study a descriptive cross-section design used to collect data from participants and the use of quantitative approach of inquiry and data management to generate and measure results.

The study population included the women in reproductive age, within the ages of 15 to 49 years old attending gynecology service at Kabutare District Hospital. This age group have selected because women within this age group were categorized as the reproductive and adult age. According to 2014-2015 RDHS report, 13,497 women attending gynecology department at Kabutare District Hospital per year. The 700 women to consider as target population in this study, the research have collected data from the participants who provide their consent signature and Participation has been voluntary without any financial incentives. Participants who were not consent to participate were excluded from participating in this study. In return females who are under 15 and over 49 years were excluded in this research.

Sample Size and Sampling Technique
Sample size is calculated using Yamane (1967) formula:
In this study, a sampling frame was defined based on the list of all women attending the gynecology at Kabutare Hospital between 15 – 49 ages in 2 months.
The sample size was calculated based on the following simplified formula provided by Yamane (1967:886).
Where
n is the sample size,
N (700) is the population target, and
e(5% or 0.05) is the level of precision(Rattray & Jones, 2007).

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{700}{1 + 700(0,05)^2}$$

$n = 254.54 = 255$ women

In this study, systematic sampling technique based on probability proportion to sample size 255 used. First, the researcher determined the sample size by using Yamane (1967) formula after obtaining the sample size, the researcher endeavored to determine the total population which is average monthly attending gynecology and obstetrics services at Kabutare District Hospital in the previous month of data collection. The first participant was selected randomly from the 2 women coming for the service, then every second was selected in the study until the desired sample size was obtained.

Data collection methods

The questionnaire was developed by the researcher also based on the literature and objectives and it was made of the following: Demographics of participants, Knowledge about family planning, Attitudes towards family planning, Practice of family planning.

The questionnaire was originally developed in the English language to maintain the consistency of the questions adapted from the references, it designed in English and then translate into Kinyarwanda. The questionnaire was made up of closed ended questions. Additional questions were added to cover the objectives of this research. Data collection for the study was done from Kabutare District Hospital to conduct this study; a structured questionnaire designed to collect information from the respondents located in this study area. The questionnaires were distributed by researcher to women who answered by writing.

Data analysis Procedure

The data have been designed by using Microsoft Excel application. Backup of the data done and was filled; questionnaire was cross-checked then stored in a lockable cabinet accessible to authorized participants. Statistical Package for Social Science (SPSS) version 20 was used for analyzing data. Knowledge about family planning issues, a score of one (1) was assigned to each correct response, a score of zero (0) was assigned to each incorrect response and don't know response. The respondents were categorized as good knowledge if the summary index is ranged between (70-100%). Average knowledge if the summary index is ranged between (50-69%), poor knowledge if the summary index is less than 50% of the total score. Descriptive analysis was computed whereby; proportion/percentages and frequency have been calculated. Chi-square test and Odd ration with corresponding 95% confidence interval was computed to establish the association between variables.

Variables with a p-value less than 0.05 at bivariate analysis were considered together in multivariate analysis. The level of statistical significance set at p-value < 0.05 and 95%CI without including ORs. In second instance, vicariate analysis performed to test the association of knowledge and both attitudes and practices on family planning by the respondents from Kabutare District hospital.

Ethical consideration

To conduct the study, ethics clearance by Mount Kenya University, Rwanda (MKUR) Institutional Review Board (IRB), was obtain and the study approve by the ethics research committee of the participating hospital. Permission was also obtained from the management of the hospital. The participation in the study was voluntary and a prior written consent obtained from the participants, who was informed of their right to withdraw from the research

at any time and possible risks and benefits of this research including how the researcher was mitigate for any risk. No name was appearing on the questionnaire to assure confidentiality. Non malfeasance and beneficence ethical principles was observed through assuring participants that their responses are valid, and they may not be mistreated due to their contributions to this research they were not be identified or trace back to the data.

Results

Demographic Characteristics of Respondents

Table 4.1 Indicates that a total of 255 women at Kabutare District Hospital had participated in the study with a response rate of 100%. The highest parentage 81 (32%) of the respondents were between 30-34 years old. The majority of the respondents 117 (46%) had secondary level of education while 35 (13.7%) have not level of education. High number of respondents at Kabutare District Hospital were self- employment 91 (35.7%) while few of them 80 (31%) were housewife. High number of respondent's 124 (48.6%) those were Catholic while 22 (8.6%) have no religion participation. The most respondents 145 (56.9%) are married and few of women 22 (8.6%) are divorced. The high number of respondents 132 (51.8%) are in category III of ubudeh*e*, the majority of respondents 118 (46.3%) their first age of getting marriage is between 26 and 30. The most respondents 102 (40.0%) have two children. The high number of respondents 106 (41.6%) have less than five years duration of marriage.
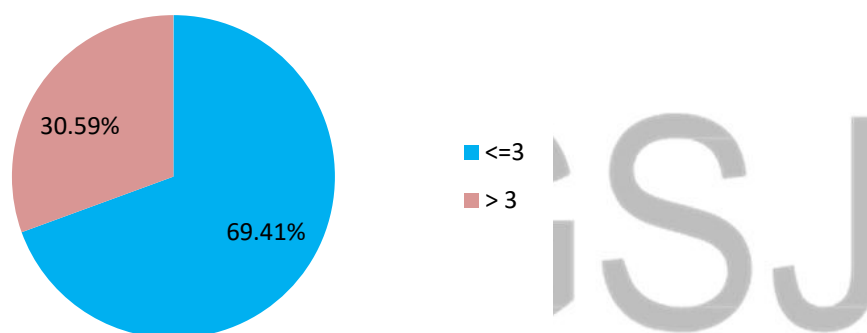
Knowledge on family planning methods among women in KDH

The first objective of the study was to assess the knowledge on family planning methods among women attending Kabutare District Hospital. The distribution of the selected knowledge characteristics among the respondents is shown in table 4.2

Table 4. 1: Knowledge on family planning methods

Variables	Frequency(n=255)	Percent(%)
Fertile period		
5-10 days	38	14.9
12-13 days	194	76.1
25-28 days	16	6.3
All above	7	2.7
Family planning is used for		
Only controlling children	25	9.8
Spacing or limit birth	224	87.8
All above	6	2.4
Birth spacing of less 6 months is high risk pregnancy to		

Only Children	33	12.9
Father	35	13.7
Newborn baby and mother	178	69.8
All above	9	3.5
If a woman forgot one pill she can		
Take it as soon as she remember	84	32.9
Take it after sexual intercourse	143	56.1
Consult health care provider	22	8.6
All above	6	2.4
An IUD (loop) is placed in		
Vaginal	27	10.6
Cervix	50	19.6
Uterus	162	63.5
All above	16	6.3
A male condom can be used effective against pregnancy		
Yes	218	85.5
No	27	10.6
Don't Know	10	3.9
How many times a male condom can be used and still remain effective against pregnancy?		
One time	248	97.3
Don't know	7	2.7
What is the method that can prevent both pregnancy and sexual transmitted diseases?		
Condom	188	73.7
Pills	19	7.5
Injections	20	7.8
IUD/Implants	7	2.7
Don't Know	21	8.2
Exclusive breastfeeding can prevent pregnancy in what conditions?		
if the baby is less than six months old	8	3.1
When women's menstrual period have not yet returned	17	6.7
When a baby is breastfeeding on cue	140	54.9
All above	70	27.5
Don't know	20	7.8
After unprotected intercourse, what could be used to prevent pregnancy		
Visit a medical doctor after one week	31	12.2
Keep calm	49	19.2
Get emergency contraception within 72 hours	171	67.1
Talk to a partner	4	1.6
A woman with varicose veins can use monthly injection?		
Yes	42	16.5
No	142	55.7
Don't Know	71	27.8
Tubal ligation provides women with permanent contraception		
Yes	104	40.8

|		
No	101	39.6
Don't Know	50	19.6
Contraceptive pills prevent against some cancers		
Yes	29	11.4
No	180	70.6
Don't Know	46	18.0

Source: Primary data

Table 4.2 indicated, the majority 194 (76.1%) said period of fertile is between twelve and thirteen days, while most 224(87.8%) know family planning is used for birth spacing or birth limiting. The majority of respondents 178 (69.8%) said that birth spacing less than six months is a high risk of next pregnancy to a newborn baby and mother. Most respondents 143 (56.1%) said if a woman forgot a ONE pill, she can take it after sexual intercourse. The majority of respondents 162 (63.5%) said an IUD is placed in uterus, and the most respondents said 218 (85.5%) agree a male condom can be use effective against pregnancy. The majority 248 (97.3%) know one time is a male condom can be used and still remain effective against pregnancy while 7 (2.7%) they don't know. The majority women 188 (73.7%) know the method that can prevent both pregnancy & sexually transmitted diseases is a condom. The majority 140 (54.9%) know that exclusive breastfeeding can prevent pregnancy in all conditions when a baby is breastfeeding on cue, while few of them 8 (3.1%) know exclusive breastfeeding can prevent pregnancy when the baby is less than six months old. Most respondents 171 (67.1%) said after unprotected intercourse, get emergency contraception within 72 hours to prevent pregnancy. The majority of women 142 (55.7%) don't agree that a woman with varicose veins can use monthly injections. The majority 104 (40.8%) agree that tubal ligation provides women with permanent contraception, while the majority of respondents 180 (70.6%) don't agree that Contraceptive pills prevent against some cancers.

4.2.2 Level of knowledge on family planning methods among women in KDH

The level of knowledge was assessed based on variables presented in Table 4.2.

The maximum attainable score of knowledge was 13 and the minimum was 0. The level of

Knowledge was classified as follows: good knowledge (50% and above), poor knowledge (below 50%).
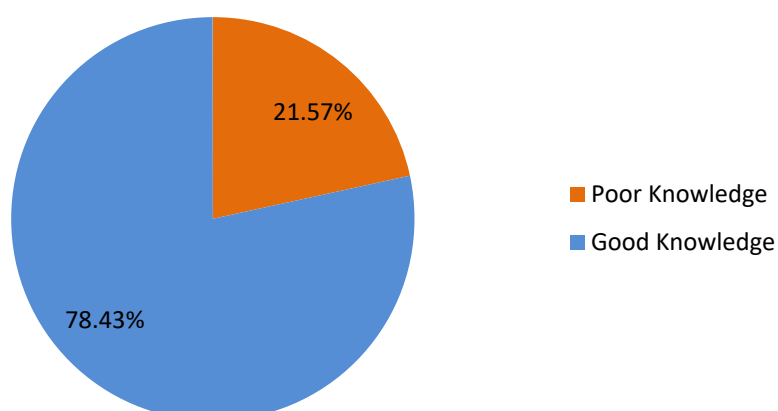
Level of knowledge on family planning methods among women at KDH

Figure 4.2 above shows that the majority of the respondents had good knowledge (78.43%), 21.57 had poor knowledge (21.57%). The scores are structured in Appendix 4.

Attitude towards family planning

The second objective of this study was to explore the attitude towards family planning use among women attending Kabutare District Hospital. The distribution of the selected attitude characteristics among the respondents is shown in table 4, 3
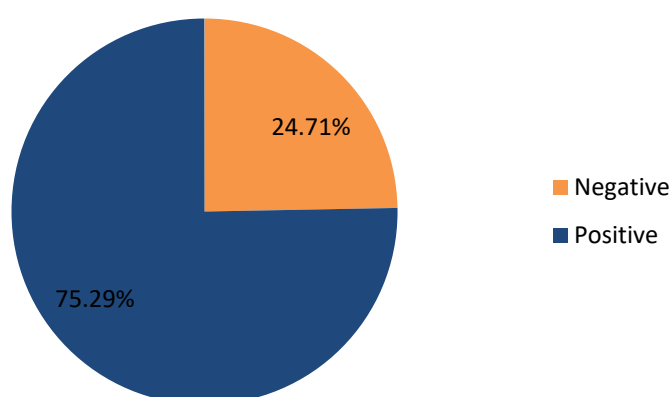
Table 4. 2 Attitude of family planning

Variables	Frequency(n=255)	Percent (%)
Producing many children is proof of pride for the family		
Strongly Agree	12	4.7
Agree	38	14.9
Neutral	93	36.5
Disagree	40	15.7
Strongly disagree	72	28.2
Producing many children is important for a man to prove his masculinity		
Strongly Agree	15	5.9
Agree	29	11.4
Neutral	25	9.8
Disagree	128	50.2
Strongly disagree	58	22.7
Producing many children is important for a woman to prove her fertility		
Strongly Agree	17	6.7
Agree	29	11.4
Neutral	34	13.3
Disagree	124	48.6
Strongly disagree	51	20.0
Family that has all girls should keep having children till they get one boy.		
Strongly Agree	50	19.6
Agree	21	8.2
Neutral	23	9.0
Disagree	17	6.7
Strongly disagree	144	56.5
Family planning improves family standards of living.		
Strongly Agree	137	53.7
Agree	28	11.0
Neutral	34	13.3
Disagree	21	8.2
Strongly disagree	35	13.7
Producing 5 or more children can be harmful to the health of the mother		
Strongly Agree	53	20.8
Agree	65	25.5
Neutral	106	41.6
Disagree	22	8.6

Strongly disagree	9	3.5
Family planning gives enough time to take care of their children		
Strongly Agree	95	37.3
Agree	72	28.2
Neutral	39	15.3
Disagree	20	7.8
Strongly disagree	29	11.4
Using family planning methods after delivery prevents unplanning pregnancies		
Strongly Agree	74	29.0
Agree	96	37.6
Neutral	52	20.4
Disagree	16	6.3
Strongly disagree	17	6.7

Source: *Primary data*

Table 4.3, the majority of respondents 93 (36.5%) are neutral said that producing many children is proof of pride for the family. The most respondents 128 (50.2%) disagree that producing many children is important for a man to prove his masculinity. The highest number of respondents 124 (48.6%) disagree that producing many children is important for a women to prove her fertility. The majority 144 (56.5%) are strongly disagree that family has all girls should keep having children till they get at least one boy.

The most respondents 137 (53.7%) are strongly agree that family planning improves family standards of living. The majority 106 (41.6%) are neutral for producing five or more children can be harmful to the health of the mother. The high number 95 (37.3%) strongly agree that family planning gives parents enough time care of their children. The majority 96 (37.6%) strongly agree that using family planning methods after delivery prevents unplanned pregnancies.


**Level of attitude of family planning methods among women at KDH**

Figure 4.4 above shows that the majority of the respondents had positive attitude (75.29%) while 24.71 % demonstrated poor attitude. The maximum attainable score of attitude was 8 and the minimum was 0. Scores are structured in Appendix 5.

Practice of family planning among women attending Kabutare District Hospital
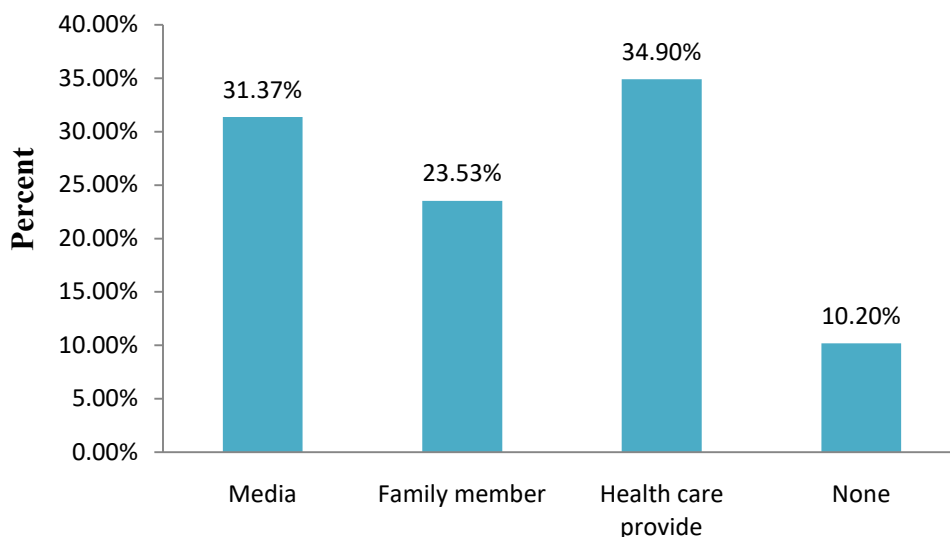
The third objective of this study is to determine the level of contraceptive use and types of contraceptives use by respondents. Findings are presented on figure 4.5 shows the level of practices on family planning among respondents.
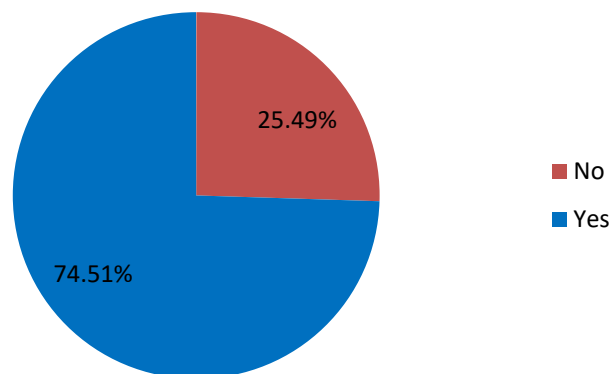
Practices of Family planning
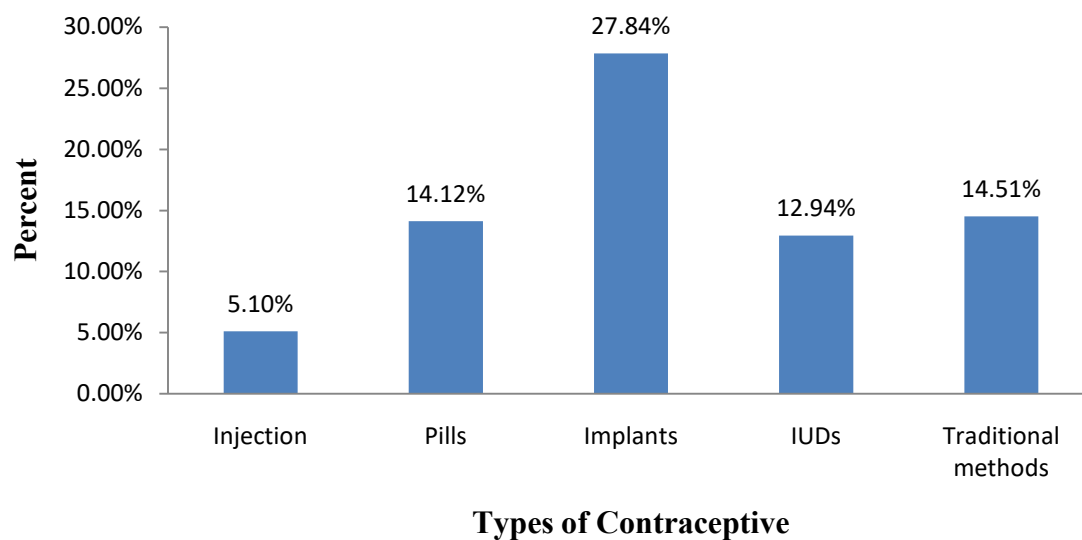
Types of Contraceptive methods used

As shown in figure 4.5,6, the high respondent's 190(74.51%) are currently use contraceptive methods while 65(25.49%) are not using contraceptives methods. Among those who use contraceptive, the majority (27.84%) are using implant while (14.51%) are using traditional methods, (14.12%) are using pills, (12.94%) using IUDs then (5.10%) are using injection. As shown in figure 4.7 The majority (34.90%) found the information's through health care providers, (31.37%) from the media, (23.53%) from the family members, while (10.20%) they don't remember the source.

The overall score practices on family planning methods among women attending Kabutare District Hospital were determined by using a score of responses. Variables presented in figure 4.5 were considered together and scores are structured in Appendix 6. The maximum attainable total score was 4 and minimum score was 0.

Factors associated with contraceptive use

Bivariate analysis of the association between socio-demographic characteristics, knowledge and attitude with the practices of women attending KDH is shown in Table 4.5.

Relationship of social-Demographic, knowledge and attitude of family planning with its practices

Variable	Practice of FP		COR (95%CI)	P-value
	No, n (%)	Yes, n (%)		
Age in years				
20-24	10(37.0)	17(63.9)	1.00	
25-29	18(26.1)	51(73.9)	1.667(0.646-4.301)	0.291
30-34	22(27.2)	59(72.8)	1.578(0.628-3.966)	0.332
35-39	8(17.4)	38(82.6)	2.794(0.938-8.323)	0.065
40-44	7(21.9)	25(78.1)	2.101(0.668-6.606)	0.204
Level of Education				
No Formal Education	19(54.3)	16(45.7)	1.00	
Primary	14(24.1)	44(75.9)	3.732(1.522-9.149)	0.004
Secondary	22(18.8)	95(81.2)	5.128(2.279-11.536)	<0.001
College and higher	10(22.2)	35(77.8)	4.156(1.579-10.937)	0.004
Occupation				
Housewife	25(31.3)	55(68.8)	1.00	
Self-employed	25(27.5)	66(72.5)	1.200(0.620-2.321)	0.588
Government/Private institution employee	15(17.9)	69(82.1)	2.091(1.006-4.346)	0.048

Residence				
Rural	32(23.0)	107(77.0)	1.329(0.756-2.338)	0.323
Urban	33(28.4)	83(71.6)	1.00	
Religion				
Catholic	24(19.4)	100(80.6)	1.225(0.411-3.653)	0.715
Muslim	9(25.)	27(75.0)	0.882(0.253-3.081)	0.844
Protestant	27(37.0)	46(63.0)	0.501(0.166-1.512)	0.220
None	5(22.7)	17(77.3)	1.00	
Marital status				
Cohabitant	9(21.4)	33(78.6)	1.375(0.417-4.534)	0.601
Married	42(29.0)	103(71.0)	0.920(0.337-2.511)	0.870
Widow	8(17.4)	38(82.6)	1.781(0.532-5.967)	0.349
divorced/Separated	6(27.3)	17(72.7)	1.00	
Ubudehe category				
Cat I	4(40.0)	6(60.0)	1.00	
Cat. II	26(28.9)	64(71.1)	1.641(0.428-6.297)	0.470
Cat. III	31(23.5)	101(76.5)	2.172(0.576-8.193)	0.252
Cat. IV	4(17.4)	19(82.6)	3.167(0.601-16.692)	0.174
Age at first marriage				
21-25	37(34.9)	69(65.1)	1.00	
26-30	24(20.3)	94(79.7)	2.100(1.152-3.828)	0.015
31-35	3(11.1)	24(88.9)	4.290(1.211-15.198)	0.024
36-40	1(25.0)	3(75.0)	1.609(0.162-16.016)	0.685
Parity				
<=3	27(15.3)	150(84.7)	5.278(2.884-9.657)	<0.001
> 3	38(48.7)	40(51.3)	1.00	
Duration of marriage				
<5 years	31(29.2)	75(70.8)	1.00	
5-10 years	15(19.0)	64(81.0)	1.764(0.875-3.555)	0.113
11-15 years	13(24.1)	41(75.9)	1.304(0.615-2.763)	0.489
16-20 years	3(33.3)	6(66.7)	0.827(0.194-3.516)	0.797
>20 years	3(42.9)	4(57.1)	0.551(0.116-2.608)	0.452
Source of information about family planning				
Media	14(17.5)	66(82.5)	7.543(2.836-20.061)	<0.001
Family member	17(28.3)	45(71.7)	4.047(1.535-10.668)	0.005
Health care provide	18(20.2)	71(79.8)	6.311(2.455-16.226)	<0.001
None	16(61.5)	10(38.5)	1.00	
Knowledge				
Unknowledgeable	35(63.6)	20(36.4)	1.00	
Knowledgeable	30(15.0)	170(85.5)	9.917(5.061-19.431)	<0.001
Attitude				
Negative	36(57.1)	27(42.9)	1.00	
Positive	29(15.1)	163(84.9)	7.494(3.966-14.162)	<0.001

*CI: Confidence Interval; **COR**: Crude Odds Ratio; **FP**: Family Planning*

The above table shows association between different factors and practices of family planning. It is found that there was no statistical association between maternal age, place of residence, religion, marital status, ubudehe category and marriage duration of the respondents with practices of family planning.

There was also no statistical association between maternal occupation and practices of family planning, but Government/Private institution employee was found to be a pushing factor for practicing family planning where Government or Private employee women were found to be 2 times more likely to use family planning than Housewife (OR= 2.091; 95% CI= 1.01-4.35; p-value=0.048).

Maternal education had showed significant statistical association with practices family planning. The odds of practicing family planning were 3.73 times higher for women who attended primary study than those who didn't attend any formal education (OR= 3.73; 95% CI = 1.52-9.15; p-value=0.004). Women who attended secondary study were 5.13 times more likely to use family planning than those who didn't attend any formal education (OR= 5.13; 95% CI= 2.28-11.54; p-value<0.001). The odds of practicing family planning were 4.16 times higher also for women who attend College and higher than those who didn't attend any formal education (OR= 4.16; 95% CI = 1.58-10.94; p-value=0.004).

Age of women at first marriage was found to be statistically significance. Women who were married at the age between 26 and 30 years old were 2.10 times more likely to use family planning than those married at 21 to 25 years old (OR= 2.10; 95%CI= 1.15-3.83; p-value= 0.015). The odds of practicing family planning were 4.29 times higher for women who were married at the age between 31-35 years old than those who were married at 21 to 25 years (OR= 4.29; 95%CI= 1.21-15.20; p-value= 0.024).

There was a high statistical significant association between number of live birth and practices. Women who had at most three live births were 5.28 times more likely to use family planning than their counter parts women who had more than 3 live births (OR= 5.28; 95%CI= 2.88-9.66; p-value <0.001). Means of information had also showed statistically significant association with family planning practice. Women who got information about family planning from media were 7.54 times more likely to use family planning than those who got information from nowhere (OR= 7.54; 95%CI= 2.84-20.06; p-value <0.001). The odds of practicing family planning were 4.05 times higher for women who got information from Family member than those who got information from nowhere (OR= 4.05; 95%CI= 1.54-10.67; p-value= 0.005). Also, women who got information about family planning from Healthcare providers were 6.31 times more likely to use family planning than those who got information from nowhere (OR= 6.31; 95%CI= 2.46-16.23; p-value <0.001).

There was also high statistically significant association between knowledge of family planning and practice (p< 0.001). Knowledgeable women about family planning were 9.92 times more likely to use family planning than those unknowledgeable women (OR= 9.92; 95%CI= 5.06-19.43; p-value <0.001). Attitude of women about family planning had also showed a high statistically significant association with family planning practice. The odds of practicing family planning were 7.49 times higher for women who had positive attitude about family planning than those who had negative attitude (OR= 7.49; 95%CI= 3.97-14.16; p-value <0.001).

Multivariate analysis of factors associated with Family planning practices

Variables were analyzed through multivariate logistic regression analysis to examine the independent variables associated with Family planning practices, while simultaneously controlling for potential confounders.

The independent variables associated with Family planning practices after controlling

potential confounders are presented in table 4.5 below.

Table 4. 3 Multivariate analysis of factors associated with Family planning practices

Variables	AOR (95% CI)	P-value
Level of Education		
No Formal Education	1	
Primary	0.364(0.072-1.827)	0.219
Secondary	0.494(0.099-2.480)	0.392
College and higher	0.089(0.016-0.478)	**0.005**
Parity		
<=3	5.355(2.297-12.483)	**<0.001**
> 3	1	
Source of information about family planning		
Media	6.176(1.698-22.470)	**0.006**
Family member	1.883(0.366-9.674)	0.449
Health care provide	0.915(0.164-5.105)	0.919
None	1	
Knowledge		
Poor Knowledge	1	
Good Knowledge	11.328(4.103-31.272)	**<0.001**
Attitude		
Negative	1	
Positive	6.494(2.751-15.330)	**<0.001**

CI: Confidence Interval; AOR: Adjusted Odds Ratio

From backward logistic regression, there were no variables that were excluded in the model after considering variables with a p-value of less than 5% and controlling potential confounders.

There was a high statistically significant association between number of live birth and practices. Women who had at most three live births were 5.36 times more likely to use family planning than their counter parts women who had more than 3 live births (OR= 5.36; 95%CI= 2.30-12.48; p-value <0.001). Means of information had also showed statistically significant association with family planning practice only for media. Women who got information about family planning from media were 6.18 times more likely to use family planning than those who got information from nowhere (OR= 6.18; 95%CI= 1.70-22.47; p-value= 0.006).

Similarly, knowledge of family planning has been also found to be a strong predictor of family planning practice (p< 0.001). Good knowledge women about family planning were 11.33 times more likely to use family planning than those poor knowledge women (OR= 11.33; 95%CI= 4.10-31.27; p-value <0.001). Attitude of women about family planning had also revealed a high statistically significant association with family planning practice. The odds of practicing family planning were 6.49 times higher for women who had positive attitude about family planning than those who had negative attitude (OR= 6.49; 95%CI= 2.75-15.33; p-value <0.001).

4.5 Discussions

This study addressed the current knowledge, attitude and practice of family planning among 255 women attending Kabutare District Hospital. The high respondent's 190(74.51%) are currently use contraceptive methods. The present study in Soudan showed that, the awareness of contraceptive use is (87%), as compared with the study of Sara Barer et al who carried out study on Barriers to family planning service utilization among Sudanese women in Khartoum locality, the awareness of contraceptive use is (87%) which is not far comparable with our study. High level of awareness 99% has also been reported at Lahore study (Pakistan) and Indian study revealed knowledge rate of 82.2%.(Handady et al., 2015).

More than 3/5th (74.51%) of the respondents replied family planning is done for birth spacing alike to the result acquired from KDH, South Rwanda. Same to majority (86%) of the respondents were vigilant about any family planning methods from Sudan (87%), Nigeria (89%), Dulikhel, and Kathmandu (90%). They were aware about the family planning methods as the government is focusing more in this area by providing free counseling and family planning measures (Sharma & Kafle, 2017).

Attitudes of women towards family planning are influenced by education and experiences such as pregnancy. It was observed that there was significance association between practices of contraceptives and level of education in our study. This result is consistent with Sudanese Household Health Survey (SHHS) 2016 where only 22% of women with no education were using modern methods of contraception compared to 52% of women with at least some secondary education. This is also supported by other studies which concluded that knowledge and practice of family planning is strongly related to higher level of education (Handady et al., 2015).

According to (WHO, 2015) in the 45 countries or areas where a single method constituted 50 percent or more of all use in 2015, the dominant methods included the pill (15 countries), injectables (10 countries), IUD (7 countries), and, in fewer countries, female sterilization, male condom, withdrawal or other traditional methods. Countries where contraceptive practice is heavily concentrated on one or two methods can be found in all regions and at all levels of overall contraceptive prevalence (Unions et al, 2015).

Regarding knowledge of contraceptive methods among married and currently married women, a study conducted in Rural Areas of Pakistan (2015) showed that almost all ever married and currently married women (99 percent each) know at least one method of family planning. Similar proportions of ever-married women (98 percent) and currently married women (99 percent) have knowledge of at least one modern method, Knowledge of any modern contraceptive method among respondents was found to be extremely high (99.3%) (Mustafa *et al.*, 2015).

The results from KDH are in line with the result of a study conducted in Malawi where most contraceptive method used implant (48%) followed by pills (19%) and only (2.0%) women know about IUD(Meskele & Mekonnen, 2014). In Ethiopia the study carried out in Kathmandu Medical College Teaching Hospital, revealed only Implant was most popular(85.6%) (Thapa, 2018).

Findings were achieved from NDHS related to the findings from KDH, where the role of health care providers as well as advertisement/media should be emphasized more in providing contraception knowledge so as to achieve more knowledge and practice related to the concerned area(Sharma & Kafle, 2017).

Similar to those who haven't practiced family planning method were further asked if they want to use in the future,15 respondents representing 28.8% said they like to use family planning in the future, 19 respondents representing 36.5% don't like to use family planning and others 18 that is 34.6% couldn't make up their minds (Beyene, 2015).

Same to KDH, the role of health care providers as well as advertisement/media should be emphasized more in providing contraception knowledge so as to achieve more knowledge and practice related to the concerned area. Among temporary methods of family planning, condom was most commonly used similar to the study from Nigeria. Whereas significantly lesser (15%) were using condom as method of family planning. As the respondents were using only some varieties of contraceptive methods so this may be due to fact that the in-depth knowledge on temporary methods of contraception is still lacking. Most of the women (60%) received their family planning information from the hospital comparable result was obtained in the present study (Valley, 2014)

In Pakistan DHS 2012-13 results which demonstrate that contraceptive use increases with age and the number of children and reaches optimal level when the couples have achieved their desired number of children. However, the study findings also draw attention to other factors like lack of awareness about the range of family planning methods, absence of health facilities providing quality family planning services, inability to afford the quality services in remote cities, and sociocultural issues like peer-pressure, restrictions on female mobility, and in-laws' disapproval. These findings are also in agreement with previous research studies. Fear of side-effects also emerged as an important impediment to contraceptive use which is also a recurrent theme in many studies conducted in developing countries including Pakistan, India, Bangladesh, and Ethiopia. In addition, religious concerns were also cited by some participants as a reason for not using contraception which was also reported as important factor impeding contraceptive adoption by previous national DHS surveys. Some other studies have also highlighted religions as an important factor influencing an individual's decision to adopt contraception(Ahmed et al., 2016).

Conclusions and recommendations

Rwanda population is still increasing rapidly with a high fertility rate which is one challenge of the development. The family planning methods is mechanisms to control birth population, however it is still a problem since the use of contraceptive methods among women responsible to sensitize and provide contraceptive methods is not enough especially in Kabutare District Hospital, Huye district which has high population rate. The mistaken information about side effects of contraceptive methods is another main barrier of low acceptance and promotion of community family planning methods. The level of knowledge on family planning methods among the population in Rwanda contribute to the practice of contraceptive methods because people with high knowledge are more like lyto promote family planning methods.

The study showed that much more must be done to raise the level of knowledge, attitudes and practices to family planning methods in the country. Thus, multiple sectors are concerned with health like to:

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