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Knowledge, attitudes and practices of Health professionals
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Knowledge, attitudes and practices of Health professionals about immediate postpartum family planning.

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PRECIS

Healthcare providers’ knowledge and attitude towards modern family planning practice in immediate postpartum period was influenced by gender, qualification, working place and religion.

LIST OF ABBREVIATIONS

FP: Family Planning

GP: General Practitioner

IUD: Intrauterine device

CHUK: Centre Hospitalier Universitaire de Kigali

RMH: Rwanda Military Hospital

DH: District Hospital

HC: Health Center

RH: Referral Hospital

WHO: World Health Organization

DHS: Demographic Health Survey

MCSP: Maternal and Child Survival Program

PPFP: Postpartum Family Planning

ANC: Antenatal care

IRB: Institutional Review Board

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ABSTRACT

Objective: In Rwanda, modern FP use has known a tremendous increment from 6% in 2000 to 45% in 2010. However, it increased only by 3% in the next 5 years up to 48% in 2015. To improve this, the MoH, and its partners, introduced the scale up program of immediate postpartum family planning services in 2015. This study was conducted to assess the level of knowledge, attitude and practice of healthcare providers towards immediate postpartum Family Planning as pillars to success of this program.

Methods: The data was collected through self-structured questionnaire after IRB approval. The study sample was 235 healthcare providers (Residents, GPs, Midwives and Nurses) that were purposively selected from CHUK, RMH, Byumba and Kibagabaga DHs, Rushaki and Rutare HCs. The data was analyzed using SPSS 25 and Excel.

Results: Of all 235 distributed questionnaires, response was 196 (83.4%). Our study showed different level of knowledge on modern family planning methods use. Residents showed the highest score (95.4%) and nurses showed lowest score at 77.1%; nurses at DH showed inadequate knowledge (67%) according to study target score of 70%. Participants showed different attitudes to family planning methods. Work overload, lack of appropriate materials both impact FP as reported by 41.8% and 23.4% respectively.

Conclusion: On the basis of these findings, healthcare providers' training on all methods of family planning will help to acquire new evidence and overcome some misperceptions to family planning success.

Keywords: Knowledge, Attitude, Practice, Family planning methods, Health care providers

I.INTRODUCTION

Puerperium is the important time for FP provision. Immediate postpartum FP focuses on getting more patients discharged from maternity wards after they have already in place the chosen method to prevent unintended and closely spaced pregnancies and their complications through the first 12 months following childbirth ¹. Immediate postpartum period is defined as first 48hours following child birth while late postpartum extends up to 12months ¹. FP is one of strategies to promote good maternal, neonatal and child health; not only by attaining desired number of children but also by planned birth spacing². WHO recommends 24months before attempting the next pregnancy²after alive birth. Evidence shows that women frequently return to fertility and sexual intercourse before initiating contraception after delivery, but do not understand the risk of pregnancy before the return of menses³. Data shows that in Bangladesh, 33% of women resumed sexual activity within 3 months postpartum, but only 7.2% were using contraception while in Rwanda, these proportions are 73.6% and 1.7%, respectively ⁴. Current studies have shown increased success rate in FP use once the counseling, about contraception, is initiated during antenatal consultation and completed during child birth, in postpartum and postnatal consultation including immunization ². If a woman or couple has chosen any method, this should be clearly documented in the appropriate patient records so that it can be provided as soon as possible after childbirth ⁵. Couple's understanding is important as husbands' preferences have a greater influence on wives' choice in contraceptive use^{6,7,8}. There are several proven safe methods of FP during immediate postpartum period according to individual choice and whether she is breastfeeding or not ⁹.

In Rwanda, modern contraceptive use among married women rose from about 6% in 2000 to 45% in 2010¹⁰. This exponential achievement has slowed down to reach only 48% of reproductive women aged 15-49years in 2015¹⁰. However, current available data showed that 19% of currently married women have unmet need of FP services with 11% need in birth spacing and 8% in birth limiting ¹⁰. According to Rwanda DHS 2015, 91% of modern contraceptive users obtain their contraception from public sector¹⁰.

Since 2015, the Rwanda ministry of health and health partners initiated a Scale up program of immediate postpartum FP services to improve number of FP users¹¹. It is focusing on the immediate postpartum period while women are still in the maternity ward or within the first 48 hours after childbirth as an opportunity to reach as many women as early as possible¹¹. Inadequate knowledge among users was one of the major barriers of FP in Rwanda ⁶.

This study assessed the knowledge, experience and perceptions of health care providers (medical doctors, midwives and nurses) about modern F and its use FP in immediate postpartum. All health sector levels in Rwanda (Health centers, District Hospital and Referral Hospital) were involved and randomly chosen. No accessible data found yet in Rwanda.

Similar studies done in Nigeria¹² involving healthcare providers, in Malaysia¹³ involving finalist medical students, in Russia involving medical doctors¹⁴, in Kenya involving nurses¹⁵ and medical doctors¹⁶, all confirm the role of healthcare providers knowledge as pillar to FP promotion.

II. MATERIALS AND METHODS

A descriptive cross-sectional study was conducted among medical doctors (general practitioners and residents in obstetrics-gynecology) midwives and nurses working in 6 health institutions: 2 referral tertiary hospitals CHUK and RMH, 2 district hospitals Kibagabaga and Byumba, 2 health centers Rushaki and Rutare. The study was reviewed by IRB at the University of Rwanda, College of Medicine and Health Sciences and approval was granted.

Before starting, the study was presented to and approved by each site administration. Self-administered questionnaires were distributed to eligible participants at each working site in a 2-month period from November to December 2018 comprising 32 true and false questions, yes and no questions in 2 divided parts: 1st part with 17 questions about general knowledge in FP and the 2nd part with 10 questions on attitudes and 5 questions on practice experience about immediate postpartum FP. Each question corresponded to 1 point; adequate knowledge, good attitudes and practice score $\geq 70\%$.

This study was conducted with an exhaustive approach. Expected participants were 235 healthcare providers that were purposively selected from working sites during Data collection period. Participants were recruited in morning staff meetings and at their working stations along the day. Those who were not attending on 1 day were recruited the following day. All those who agreed to participate in the study, signed an informed consent and filled out the hard copy designed questionnaire.

All General practitioners, nurses and midwives at DHs independently of their working department, all midwives at referral hospitals, all nurses and midwives at HCs, all residents in Obstetrics & Gynecology, who were at working place during the period of November-December 2018, were candidates to the study. The data was collected through self-structured questionnaire. The data were entered and analyzed using SPSS Version 25 and Excel then exported to word for final document. P-value < 0.05 was used for statistical significance.

III. RESULTS

196 (83.4%) signed informed consent and participated in the study. The highest number of respondents were nurses (41.8%) and the lowest were residents in Obstetrics & Gynecology (8.7%). Female respondents were predominant (71.4%). There was no comparison between male and female of same qualification. The majority were between 21-45 years (94.4%). Most of them were married (69.9%). Catholic respondents were 47.4%; DHs had a big number of respondents (68.3%).

Our study overall knowledge score was 84.4%. Residents showed the highest score (95.4%) and nurses showed lowest score at 77.1%. Nurses at DH showed inadequate knowledge (67%) according to the study target score of 70% while midwives scored at 70.7%. Birth spacing and timing, desired number of children was identified as main objective of FP in 180(91.8%) of respondents. Initiation of FP counseling during antenatal consultation was believed to increase the success rate of postpartum FP by 160(81.6%) of participants. Of all our respondents, 26 (13.2%) could not define immediate postpartum period. The highest knowledge score was from residents in Obstetrics&Gynecology at 95.4%, the lowest being of nurses at 77.1% with the overall score of 84.4%. About the safety of different methods in immediate postpartum period, a total of 36(18.3%) participants including GPs, nurses and midwives from DH and 1 Resident thought that all modern FP methods are safer in immediate postpartum while 28(14.3%) have no information on it. However, 33(16.8%) of all our participants said that Implants are absolutely contraindicated in breastfeeding. About IUD use, 43(21.9%) including 7 GPs, 13 nurses and 23 midwives then 31(15.8%) including 1 GP, 15 nurses and 15 midwives thought that IUD is a major cause of ectopic pregnancies and sexually transmitted diseases respectively. Also, our study found that 168(85.7%) recommend condom use as dual protection. Of all our study participants, 158(80.6%) agree on the importance of past medical history of the patient before choosing appropriate method. Most of our respondents 152(77.5%) said that male sexual partner is key success of FP. Our study results showed association of level of knowledge and gender, qualification and working place ($p\text{-value} < 0.05$). In general male scored higher than female, Residents than other categories, HC than other places. The most knowledgeable group was residents (100%) and the least knowledgeable was of nurses (57.3%).

Our study showed that attitudes towards immediate postpartum FP use were influenced by gender, religion, working place and qualification of participants ($p\text{-value} = 0.05$). Good attitude were observed in Anglican, Male, Residents, at referral hospital compared to other groups. There was no association between participant knowledge and attitude ($p\text{-value} = 0.242$). About the need in further practical training, 70.9%, all studied categories included, said they need more training to provide adequate FP service to the society. Concerning religious belief, 79(40.3%) of our participants agreed that FP is against God's will about reproduction. Most of our participants, 168(85.7%) said that having children of the same sex should not prevent FP use. There were 59(30.1%) respondents believing that FP is reserved to low socio-economic status group. Sexual feeling was also an issue where 42(21.4%) of our participants said that FP interferes with sexual feeling. Less than a half, 96(46.9%) thought that sterilization as permanent method is allowed to patients less than 35 years. Long acting reversible contraception was believed to be a cause of infertility by 35(17.8%) of respondents; however 130(66.3%) think that FP should be allowed even to single. About the need in further practical training, 70.9%, all studied categories included, said they need more training to provide adequate FP service to the society. Concerning religious belief, 79(40.3%) of our participants agreed that FP is against God's will about reproduction. Most of our participants, 168(85.7%) said that having

children of the same sex should not prevent FP use. There were 59(30.1%) respondents believing that FP is reserved to low socio-economic status group. Sexual feeling was also an issue where 42(21.4%) of our participants agreed on the statement. Less than a half, 96(46.9%) thought that sterilization as permanent method is allowed to patients less than 35years. Long acting reversible contraception was believed to be a cause of infertility by 35(17.8%) of respondents; however 130(66.3%) think that FP should be allowed even to single.

This study showed no significant relationship between knowledge and practice (p -value=0.436).Concerning their experience, 43(21.9%) of all participants have never provided any FP method in first 6weeks puerperal period and 91(46.4%) all categories included said that they have never provided IUD in immediate postpartum. In their daily activities, 23.1% of respondents miss appropriate equipment to provide appropriate FP method to their patients while 82(41.8%) said that they even have no time, in their OPD, to discuss with their patients about FP because of workload.

IV.DISCUSSION

Our study showed that health care providers have adequate knowledge on modern methods of FP use with the overall score of 84.4%.Remarked difference in level of knowledge may be related to participant working departments where FP is not frequently provided, and discussion not frequently done, and/or may be due to the lack of adequate pre-service or in service training as showed by 70.9% including all studied categories of our study participants who expressed their need in further family planning training in order to provide appropriate services to the community. Our study showed association of level of knowledge with gender, qualification and working place (p -value<0.05).Similar findings were also observed in the study done in USA in 2010 by Dehlendorfa Christine and colleagues¹⁷ where younger providers, obstetrician/gynecologists, female providers and providers who provide intrauterine contraception in their practice were more knowledgeable than other groups, the study in Nigeria Healthcare providers¹²,in Malaysia Pharmacy students¹⁸ and in Kenya involving Kenyan medical doctors¹⁶,in Kenyatta National Hospital involving nursing staff ¹⁵.Most of our participants (85.7%) agreed on the role of condom in dual protection. The similar findings were observed in 65% respondents in the study by R. Elkalmi in Malaysia¹⁸.

Our study showed that attitudes towards immediate postpartum FP was influenced with gender, religion, working place and qualification of participants (p -value<0.05).Good attitude were observed in Anglican, Male, Residents, at referral hospital. There was no association between participant knowledge and attitude (p -value=0.242).Similar findings were observed in Malaysia by Mohd Nazri BIN Shafei and colleagues¹⁹. Different findings were seen in the study done on undergraduate students in Vietnam by Tran, Nhi Ngoc Yen²⁰ in 2018.About sexual habit, 42(21.4%) of our participants agreed that FP interferes with sexual feeling. Our findings are consistent with another study done by M, Casey Petra ²¹ and available evidence on literatures detailing side effects of different

hormonal&non-hormonal FP methods on female sexual function. There is a great doubt on the association of contraception methods and infertility among people^{6,22}. Our study revealed that most of respondents (82.2%) do not relate contraception with infertility. These results correlate with findings of another study in India by Hogmark S²³ where 83% did not relate contraception to infertility. In contrast, the study by Sánchez-páez²⁴ showed decreased fertility respectively by 6.8% for LAC(Latin America and the Caribbean) countries and 4.1% for SSA(Sub-Saharan Africa) countries. The similar findings were reported in Rwanda DHS 2015 with a decreased fertility rate from 6.1 in 2005 to 4.6 in 2010¹⁰. Many studies have shown increased number of FP users in immediate postpartum once service integrated in antenatal care package^{2,25}. Similarly, 81.6% of participants agreed on the statement. Involvement of male partner in family planning is of great success as it was seen in other studies^{6,22,7,8}. In our study, 77.5% agreed on this statement. Based on WHO recommendations and studies done, too closely spaced children and elevated number of children affect the socio-economic status of the family¹⁹. However, 59(30.1%) of our study participants thought that FP is reserved to low socio-economic status group. On one hand, 43(21.9%) of all our study respondents (Table 4) believe that tubal ligation should not be done because children can die at any time. On other hand, less than a half, 96(46.9%) respondents, all categories included, thought that sterilization as permanent method is allowed to patients less than 35years. Similar findings were seen in Russia¹⁴ where most physicians considered maternal age before deciding sterilization method. This is different from evidence where Family planning method should base on patient choice and her clinical background⁵. As some FP users believe that having more children means strong family⁶, in our study 34(17.3%) agreed on this statement, 5.1% said that they cannot use Family planning with children of the same sex. This is a misperception to the goal and advantages of family planning². Concerning religious belief of our participants, 79(40.3%) agreed that family planning is against God's will about reproduction.

Our participants showed that their practice in immediate postpartum FP was associated with gender and qualification (p-value=0.05). There was influence of attitude to practice of immediate postpartum FP (p-value<0.001) but no significant relationship between Knowledge and practice (p-value=0.436). Similar findings were seen in Nigeria²⁶ with Olamijuro. These findings are different from the study by Ramathuba²⁷ when assessed secondary school girls. On one hand, 91(46.4%) have never provided an IUD in immediate postpartum period; and, on the other hand, 43(21.9%) of respondents agreed that they have never provided any method before 6 weeks postpartum. Work overload was reported by nearly a half 82(41.8%) of our respondents to restrict them from FP discussion in their daily activities especially in direct contact with patients in OPD services; lack of appropriate materials to provide appropriate method of FP was significantly raised by our study participants 46(23.4%), all categories included.

Based on our results, healthcare providers should be well equipped with appropriate materials, recent information on all available modern FP methods through trainings from Schools and in-service; and their workload should be adjusted to allow them enough time for patient education and discussion on FP. This will help to overcome identified misperceptions and improve the number of modern FP users in immediate postpartum period as a primary goal of the initiated National Scale up program¹¹. Healthcare providers in all departments should be involved in FP for public interest.

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VII.TABLES

Table 1.Demographic characteristics of respondents

Variable under Consideration	Frequency	Percentage
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Age Category	21-45	185	94.4%
	>45	11	5.6%
Gender	Male	56	28.6%
	Female	140	71.4%
Marital status	Single	57	29.1%
	Married	137	69.9%
	Divorced	1	.5%
	Widow	1	.5%
Category	Medical doctor/GP	23	11.7%
	Midwife	74	37.8%
	Nurse	82	41.8%
	Resident	17	8.7%
Working Place	Referral Hospital	44	22.5%
	District Hospital	134	68.3%
	Health Center	18	9.2%
Religion	Catholic	93	47.4%
	Anglican	18	9.2%
	ADEPR	39	19.9%
	Others	46	23.5%

Source: **Field Survey**, February 2019

Table 2.Responses of participants on knowledge about immediate postpartum FP

General Knowledge					District Hospital			Referral Hospital		Health Center	
					GP	Nurse	Midwife	Midwife	Resident	Nurse	Midwife
1. Family planning allows individuals and couples to anticipate and attain their desired number of children, spacing and timing of their births.	True				23(100.0)	65(89.0)	31 (86.1)	26(96.3)	17(100.0)	9(100.0)	9(100.0)
	False					2(2.7)	3(8.3)	1(3.7)			
	Don’t know					6(8.2)	2(5.6)				
2. Non hormonal family planning methods includes Levonorgestrel and condom use.	True				1(4.5)	14(19.4)	9(25.0)	4(16.0)		2(22.2)	1(11.1)
	False				19(86.4)	44(61.1)	23(63.9)	18(72.0)	17(100.0)	7 (77.8)	8(88.9)
	Don’t know				2(9.1)	14(19.4)	4(11.1)	3(12.0)			
3. In postpartum, you can become pregnant even if your menses	True				21(91.3)	50(68.5)	23(63.9)	26(96.3)	17(100.0)	8 (88.9)	9(100.0)
	False				1(4.3)	11(15.1)	9(25.0)	1(3.7)		1 (11.1)	

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have not yet returned back.	Don't know	1(4.3)	12(16.4)	4(11.1)	5(18.5)			
4. All Modern Family planning methods are not allowed before 6weeks postpartum because they interfere with breast milk.	True	5(21.7)	12(16.7)	7 (18.9)	5 (18.5)		2(22.2)	1(11.1)
	False	16 (69.6)	39(54.2)	24 (64.9)	21 (77.8)	17(100.0)	7 (77.8)	8(88.9)
	Don't know	2 (8.7)	21(29.2)	6 (16.2)	1 (3.7)			
5. Immediate postpartum period extends from delivery to 1year postpartum.	True	3 (13.6)	8(11.0)	10 (27.0)	5(19.2)			
	False	19 (86.4)	49(67.1)	24 (64.9)	21(80.8)	17(100.0)	9(100.0)	9(100.0)
	Don't know		16(21.9)	3 (8.1)				
6. Lactational amenorrhea method is regular breastfeeding for 6months without mixing.	True	15(65.2)	42(57.5)	27 (73.0)	21(77.8)	13(81.3)	7(77.8)	8 (88.9)
	False	7(30.4)	14(19.2)	7 (18.9)	5(18.5)	2(12.5)	2 (22.2)	1 (11.1)
	Don't know	1(4.3)	17(23.3)	3 (8.1)	1(3.7)	1(6.3)		
7. Male partners play no role in family planning.	True	2(9.1)	11(15.1)	3(8.6)	2 (7.4)	1(5.9)	1(11.1)	2(22.2)
	False	20(90.9)	50(68.5)	26(74.3)	25(92.6)	16(94.1)	8(88.9)	7 (77.8)
			12(16.4)	6(17.1)		1(5.9)		
8. All modern family planning methods are safer in immediate postpartum.	True	5 (21.7)	16(23.2)	10(29.4)	4 (14.8)	1(5.9)		
	False	12 (52.2)	38(55.1)	18(52.9)	22 (81.5)	16(94.1)	9(100.0)	9(100.0)
	Don't know	6 (26.1)	15(21.7)	6(7.6)	1(3.7)			
9. The past medical history of the patient is very important in deciding which method of family planning is appropriate.	True	23(100.0)	46(64.8)	27(73.0)	27(100.0)	17(100.0)	9 (100.0)	9 (100.0)
	False		9(12.7)	5(13.5)				
	Don't know		16(22.5)	5(13.5)				
10. Condom use is recommended in dual protection (to prevent both undesired pregnancy and Sexual transmitted diseases especially HIV).	True	23(100.0)	54(74.0)	29 (78.4)	27(100.0)	17(100.0)	9 (100.0)	9 (100.0)
	False		13(17.8)	4 (10.8)				
	Don't know		6(8.2)	4 (10.8)				
11. IUD itself is a major cause of ectopic pregnancy.	True	7(30.4)	11(15.3)	10 (27.0)	12(44.4)		2 (25.0)	1(11.1)
	False	14(60.9)	49(68.1)	24 (64.9)	15(55.6)	17(100.0)	5 (62.5)	7(77.8)
	Don't know	2(8.7)	12(16.7)	3 (8.1)			1 (12.5)	1(11.1)
12. Implants are absolutely contraindicated in breastfeeding	True	2(8.7)	14(19.7)	9 (24.3)	7(25.9)		1 (11.1)	
	False	16 (69.6)	51(71.8)	25 (67.6)	20(74.1)	17(100.0)	8 (88.9)	9 (100.0)
	Don't know	5 (21.7)	6(8.5)	3 (8.1)				

mothers	know							
13. All IUD users are almost	True	1 (4.3)	14(20.0)	10 (27.8)	4 (14.8)		1 (11.1)	1 (11.1)
diagnosed with sexual transmitted	False	21 (91.3)	43(61.4)	23(63.9)	22(81.5)	17(100.0)	8 (88.9)	8 (88.9)
diseases	Don't	1 (4.3)	13(18.6)	3(8.3)	1(3.7)			
	know							
14. According to WHO, birth	True	13 (56.5)	52(72.2)	30 (81.1)	10(37.0)	11(64.7)	5 (55.6)	8 (88.9)
spacing is attempting the next	False	2(8.7)	11(15.3)	6(16.2)	11(40.7)	1(5.9)	3 (33.3)	1 (11.1)
pregnancy at least 24months after	Don't	8 (34.8)	9(12.5)	1(2.7)	6(22.2)	5(29.4)	1 (11.1)	
a live birth.	know							
15. Birth spacing is one of	True	22(95.5)	55(76.4)	29 (78.4)	27(100.0)	16(94.1)	8(88.9)	8 (88.9)
measures to reduce both maternal	False	1(4.5)	7(9.7)	6 (16.2)		1 (5.9)	1(11.1)	1 (11.1)
and perinatal morbidity and	Don't		10(13.9)	2 (5.4)				
mortality	know							
16. Initiate family planning	True	23(100.0)	47(65.3)	29 (78.4)	27(100.0)	17(100.0)	9 (100.0)	8 (88.9)
counseling during antenatal	False		15(20.8)	6 (16.2)				1 (11.1)
consultation may increase the	Don't		10(13.9)	2 (5.4)				
success rate.1g	know							
17. Some modern family planning	True	22 (95.7)	47 (64.4)	27 (73.0)	26(96.3)	16(94.1)	8(88.9)	8 (88.9)
methods can cause heavy menses	False	1 (4.3)	14 (19.2)	7 (18.9)	1 (3.7)	1(5.9)	1(11.1)	1 (11.1)
or amenorrhea.	Don't		12 (16.4)	3 (8.1)				
	know							

Source: **Field Survey**, February 2019

Table3. Relation between Sociodemographic characteristic of respondents and their knowledge

Variable	Knowledge		Chi-square	P value
	<70%	>70%		
	N (%)	N (%)		
Age			2.067	0.168
21-45	47(25.7)	136(74.3)		
>45	5(45.5)	6(54.5)		
Gender			6.912	0.009
Male	8(14.3)	48(85.7)		
Female	46(32.9)	94(67.1)		
Marital status			1.892	0.609
Single	12(21.8)	43(78.3)		
Married	40(29.2)	97(70.8)		
Divorced	0(0)	1(100)		
Widow	0(0)	1(100)		
Qualification			19.600	<0.001
MD	3(13)	20(87)		
Midwife	16(21.6)	58(78.4)		
Nurse	35(42.7)	47(57.3)		
Resident	0(0)	17(100)		
Working place			16.203	<0.001
RH	1(2.3)	43(97.7)		
DH	53(39.5)	81(60.5)		
HC	0(0)	18(100)		
Religion			2.910	0.406
Catholic	20(22)	71(78)		
Anglican	4(22.2)	14(77.8)		
ADEPR	13(33.3)	26(66.7)		
Other	15(32.6)	31(67.4)		

Table 4.Participants responses on attitudes and practice of FP in immediate postpartum

Attitude and Practices		District Hospital			Referral Hospital		Health Center	
		GP	Nurse	Midwife	Midwife	Resident	Nurse	Midwife
1.I can’t use any family planning method as I am not married yet	True	5 (21.7)	18(24.7)	14(37.8)	4 (14.8)	4 (23.5)	2(22.2)	2(22.2)
	False	18(78.3)	45(61.6)	20(54.1)	21 (77.8)	12(70.6)	7(77.8)	7(77.8)
	Don’t know		10(13.7)	3 (8.1)	2 (7.4)	1(5.9)		
2.I don’t have enough training to practice family planning	True	12(52.2)	34(46.6)	16(43.2)	14 (51.9)	2 (11.8)	6 (66.7)	2(22.2)
	False	11(47.8)	34(46.6)	21(56.8)	13 (48.1)	15(88.2)	3 (33.3)	7(77.8)
	Don’t know		5 (6.8)	7(20.6)				
3.Long acting reversible family planning methods lead to infertility	True	4 (17.4)	18(24.7)	1(2.9)	8 (29.6)	1 (5.9)	2 (22.2)	1 (11.1)
	False	19(82.6)	45(61.6)	26(76.5)	15 (55.6)	16(94.1)	6 (66.7)	8 (88.9)
	Don’t know		10(13.7)	10(27.0)	4 (14.8)		1 (11.1)	
4. Sterilization, as permanent method of family planning, is contraindicated in patient less than 35years	True	8(34.8)	32(44.4)	22(59.5)	11 (40.7)	1 (5.9)	4 (44.4)	1 (11.1)
	False	12(52.2)	32(44.4)	5(13.5)	15 (55.6)	16(94.1)	4 (44.4)	8 (88.9)
	Don’t know	3 (13.0)	8 (11.1)		1 (3.7)		1 (11.1)	
5.I can’t do tubal ligation because all my kids may die at any time	True	5(22.7)	24(32.9)	6(16.2)	3 (11.1)	1 (5.9)	3 (33.3)	1 (11.1)
	False	16(72.7)	41(56.2)	27(73.0)	24 (88.9)	15(88.2)	5 (55.6)	8 (88.9)
	Don’t know	1(4.5)	8 (11.0)	4(10.8)		1 (5.9)	1 (11.1)	
6.I need more practical training in family planning to serve the society	True	21(91.3)	41(56.2)	21(56.8)	22 (81.5)	16(94.1)	9(100.0)	9 (100.0)
	False	2 (8.7)	25(34.2)	11(29.7)	5 (18.5)	1 (5.9)		
	Don’t know		7 (9.6)	5(13.5)				
7.No need of family planning if you only have children of same sex	True	1(4.3)	6(8.3)	3(8.3)				
	False	22(95.7)	56(77.8)	29(80.6)	27(100.0)	16(94.1)	9(100.0)	9 (100.0)

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	Don't know		10(13.9)	4 (11.1)		1 (5.9)		
8.Having many children increase family production by work force	True	4 (17.4)	14(19.2)	8 (21.6)	6 (22.2)	1 (5.9)		1 (11.1)
	False	17 (73.9)	44(60.3)	23(62.2)	19(70.4)	16(94.1)	9(100.)	8 (88.9)
	Don't know	2 (8.7)	15(20.5)	6 (16.2)	2 (7.4)			
9.Family planning interferes sexual feelings	True	4(17.4)	12(16.4)	14(37.8)	6(23.1)	1 (5.9)	3(33.3)	2 (22.2)
	False	12(52.2)	45(61.6)	20(54.1)	16(61.5)	14(82.4)	4(44.4)	7 (77.8)
	Don't know	7(30.4)	16(21.9)	3 (8.1)	4(15.4)	2 (11.8)	2(22.2)	
10.Using Family planning is against God's will about reproduction	True	5 (21.7)	33(45.2)	16(43.2)	13(48.1)	8 (47.1)	2(22.2)	2(22.2)
	False	18 (78.3)	35(47.9)	21(56.8)	14(51.9)	9 (52.9)	7(77.8)	7(77.8)
	Don't know		5 (6.8)					
11. I have never inserted an IUD immediately after delivery.	Yes	4 (17.4)	47(64.4)	9 (25.7)	13(48.1)	12(70.6)	5(55.6)	1 (11.1)
	No	18 (78.3)	17(23.3)	24(68.6)	11(40.7)	1 (5.9)	4(44.4)	8 (88.9)
	No response	1 (4.3)	9 (12.3)	2 (5.7)	3 (11.1)	4 (23.5)		
12.I usually don't have time to discuss FP with my patients in OPD because of workload	Yes	6(26.1)	31(43.1)	10(27.0)	16(59.3)	6 (35.3)	5(55.6)	8 (88.9)
	No	15(65.2)	32(44.4)	22(59.5)	10(37.0)	9 (52.9)	4(44.4)	1 (11.1)
	No response	2(8.7)	9 (12.5)	5 (13.5)	1 (3.7)	2 (11.8)		
13. I don't have appropriate equipments to provide appropriate family planning method to my patients.	Yes	2 (8.7)	23(31.5)	6 (16.2)	5 (18.5)	5(31.3)	4(44.4)	1 (11.1)
	No	19 (82.6)	43(58.9)	26(70.3)	22(81.5)	11(68.8)	3(33.3)	8 (88.9)
	No response	2 (8.7)	7 (9.6)	5 (13.5)			2(22.2)	
14. Family planning is reserved to low socio-economic patients.	Yes	6(26.1)	24(32.9)	13(35.1)	5 (18.5)	7 (41.2)	3(33.3)	1 (11.1)
	No	16 (69.6)	44(60.3)	19(51.4)	22(81.5)	10(58.8)	5(55.6)	6 (66.7)
	No response	1(4.3)	5 (6.8)	5 (13.5)			1(11.1)	2 (22.2)
15. In my working experience, I have	Yes	4 (17.4)	19(26.0)	12(32.4)	4 (14.8)		4(44.4)	

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never provided any family planning method before 6weeks postpartum.	No	18 (78.3)	45(61.6)	20(54.1)	23(85.2)	17(100.	4(44.4)	9 (100.0)
						0		
	No	1 (4.3)	9 (12.3)	5 (13.5)			1(11.1)	
	response							

Source: **Field Survey**, February 2019

Table 5 Sociodemographic characteristics of respondents and their Attitude

Variable	Attitude		Chi-square	p-value
	<70%	>70%		
	N	N (%)		
	(100%)			
Age			0.615	0.517
21-45	121(66.1)	62(33.9)		
>45	6(54.5)	5(45.5)		
Gender			4.765	0.029
Male	30(53.3)	26(46.4)		
Female	98(70.0)	42(30)		
Marital status			2.518	0.472
Single	37(67.3)	18(32.7)		
Married	89(65)	48(35)		
Divorced	1(100)	0(0)		
Widow	0(0)	1(100)		
Qualification			10.734	0.013
MD	15(65.2)	8(34.8)		
Midwife	51(68.9)	23(31.1)		
Nurse	57(69.5)	25(30.5)		
Resident	5(29.4)	12(70.6)		
Working place			12.473	0.002
RH	13(29.5)	31(70.5)		
DH	100(74.6)	34(25.4)		
HC	15(83.3)	3(16.7)		
Religion			10.585	0.014

Catholic	61(67)	30(33)
Anglican	6(33.3)	12(66.7)
ADEPR	30(76.9)	9(23.1)
Other	30(65.2)	16(34.8)

Table 6.Practice experience of respondents

Variable	Practice		Chi-square	p-value
	<70%	>70%		
	N (%)	N (%)		
Age			1.340	0.608
21-45	163(89.1)	20(10.9)		
>45	11(100)	0(0)		
Gender			6.064	0.014
Male	55(98.2)	1(1.8)		
Female	121(86.4)	19(13.6)		
Marital status			4.065	0.255
Single	53(96.4)	2(3.6)		
Married	119(86.9)	18(13.1)		
Divorced	1(100)	0(0)		
Widow	1(100)	0(0)		
Qualification			7.975	0.045
MD	1(4.3)	22(95.7)		
Midwife	5(6.8)	69(93.2)		
Nurse	14(17.1)	68(82.9)		
Resident	0(0)	17(100)		
Working place			2.805	0.246
RH	5(11.4)	39(88.6)		
DH	14(10.5)	120(89.5)		
HC	1(5.6)	17(94.4)		
Religion			6.817	0.078
Catholic	8(8.8)	83(91.2)		
Anglican	0(0)	18(100)		

ADEPR	8(20.5)	31(79.5)
Other	4(8.7)	42(91.3)

Table 7.Knowledge and attitude relationship

Variable	attitude		Chi-square	p-value
	<70%	>70%		
Knowledge			1.574	0.242
<70%	15(27.8)	39(72.2)		
>70%	53(37.3)	89(62.7)		

Table 8.Knowledge, attitude and practice relationship

Variable	Practice		Chi-square	p-value
	<70%	>70%		
Knowledge			0.619	0.436
<70%	7(13)	47(87)		
>70%	13(9.2)	129(90.3)		
Attitude			11.832	<0.001
<70%	20(15.6)	108(84.4)		
>70%	0(0)	68(100)		