Knowledge, attitude and practice of women regarding contraceptive implants, in Odendaalsrus, Lejweleputswa District, Free State Province

by

Dr EM Makola

Submitted in partial fulfilment of the requirements for the degree

MASTER IN MEDICINE (FAMILY MEDICINE)

in the

DEPARTMENT OF FAMILY MEDICINE
SCHOOL OF CLINICAL MEDICINE
FACULTY OF HEALTH SCIENCES

at the

UNIVERSITY OF THE FREE STATE

Supervisor: Prof WJ Steinberg
Biostatistician: Mr FC van Rooyen

2018

DECLARATION

I declare that the dissertation hereby submitted is my own independent work, and was not previously submitted to another University/Tertiary institution for the purpose of obtaining a qualification.

I furthermore cede copyright of this dissertation in favour of the University of the Free State.

_____

Dr EM Makola

_____

Date

DEDICATIONS

This research project is dedicated first to Almighty God for His enabling strength he bestowed on me for completing the work. Secondly to my husband Dr Solomon Makola for his unwavering support and lastly to my kids for their patience and love.

ACKNOWLEDGEMENTS

I wish to acknowledge and thank the following persons for their assistance with this project:

- My supervisor, Prof WJ Steinberg, principal Family Physician at the Department of Family Medicine, University of the Free State.
- My biostatistician, Dr FC Van Rooyen, Department of Biostatistics, University of the Free State.
- Head: Department of Family Medicine, Prof N Mofolo.
- Research Ethics Committee (HSREC) of the Faculty of Health Sciences, University of the Free State, for their input and ethical approval of this study.
- Free State Department of Health, for allowing me the opportunity to conduct the study in the province.
- District Manager of Lejweleputswa, for the support in conducting the research.
- Clinical managers and the nursing personnel in the local clinics for their assistance.
- All the participants who consented to partake in the study.
- Dr Angunzu Ronald, Kampala district, Uganda, for allowing me to edit and use their original questionnaire on this project.

ABSTRACT

Contraceptive implant is a type of long acting reversible contraception (LARC) and these methods are ideal and can be recommended and be utilised to reduce unplanned, unwanted or untimed pregnancies, that could be related to the high maternal mortality and morbidity in South Africa. This form of contraception was made available to all in the public sector, Republic of South Africa, at no costs in 2014 February.

This study was a cross sectional, mainly KAP (knowledge, attitude and practice) study conducted in the district of Lejweleputswa, Free State Province. Its main purpose was to determine the knowledge, attitude and practice of women towards contraceptive implant, Implanon, and to determine the availability and the use of family planning.

This was the first study conducted in the Province. Four hundred and fifty women participated in the study. A questionnaire which was distributed in five local clinics in a period of two months was used to extract data. Clinic managers also provided information with regards to the availability of implant and other contraceptives. It has been shown that all methods of family planning are provided for in the clinics, and there is no report of them having been out of stock throughout the year(s).

Majority of the participants knew about contraception (88%) and 64.8% first heard about contraception and its availability in the public health centres. Only 51% knew about implant. Although they had an increased perception of side effects, they had a positive attitude towards implant (59%). Sixty-two percent (62%) on contraceptives, and only twenty-six (10%) were on implant. This study has indicated that the knowledge of implant contraceptive is poor in the local area as compared to studies done in other countries and also a poor practice was shown even though they had positive attitude towards implant.

TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF FIGURES

LIST OF TABLES

LIST OF ABBREVIATIONS

LARC	-	Long acting reversible contraceptives
WHO	-	World health organisation
HIV	-	Human immunodeficiency virus
AIDS	-	Acquired immunodeficiency syndrome
STI	-	Sexually transmitted infection
TB	-	Tuberculosis
IUCD	-	Intra uterine contraceptive device
SW Ethiopia	-	South West Ethiopia
KAP	-	Knowledge Attitude Practice

1. INTRODUCTION

Subdermal contraceptive implant, Implanon, is highly effective, safe, and is long acting.[1,2,4,5,6,7] It is very effective, with failure rate of only 0,05%, under optimal condition, which makes it more effective than female tubal sterilization[1] and it is safe for different age groups, from adolescence to late peri-menopausal stage due to its reversibility and rapid return to fertility and its user friendliness.[6,7] It is not user dependent once inserted, no need for regular follow ups and does not interfere with sexual pleasures[8], it also needs no maintenance and users are more compliant than towards other hormonal contraceptives.[9]

Contraception and family planning is vital and should be discussed with and offered to every woman of childbearing age, hence it should be included in every consultation as part of primary prevention where couples could be offered an opportunity to either space or limit their family.[1]

Long acting reversible contraceptive (LARCs) methods are ideal and can be recommended and be utilised to reduce unplanned, unwanted or untimed pregnancies[2], that could be related to the high maternal mortality and morbidity in South Africa whereby the maternal mortality ratio is quoted to be 176/100 000 live births (4867 deaths). First of the top five causes of maternal mortality, was non-pregnancy related sepsis, mainly HIV-related.[1]

Contraception is one of the World Health Organisation's (WHO's) four strategic plans for the prevention of mother to child transmission of HIV, thereby contributing to the reduction of HIV transmission, and it supports a national strategic plan on HIV, STI, and TB (2012-2016) and also the National Policy on contraceptives promotes the link of contraceptive and family planning services to the screening opportunities offered for HIV counselling and testing, HIV, STI, TB, cervical and breast cancer.[3]

Therefore, the availability and access to ideal contraceptives like LARCs will surely reduce the chances of dying from pregnancy-related causes.[1,4] In addition, WHO's medical eligibility criteria emphasises the shift from using the injectable progestogens due to possible risk of acquiring HIV infection, towards using alternative LARCs (Copper IUCDs, intrauterine systems like Merina, and subdermal implants); and, due to the increased risk of contracting HIV, much emphasis is made on the use of barrier contraceptive methods like condoms (dual protection) as well.[1,3]

Many forms of contraceptives are offered and can be categorised into two groups. These are long-acting and permanent methods (intrauterine devices, subdermal implants and sterilization) and short term methods (pills, condoms, spermicides, injectable and other modern methods).

Long acting and permanent methods are usually used by women who feel that they have completed their family, whereas short-term methods are better for those women who still desire to have children later on in life.[2] The main aim of this study is to assess the knowledge and attitude of women towards the contraceptive implant, Implanon, as well as the practice thereof, of the new contraceptive implant in South Africa.

2. LITERATURE REVIEW

Implanon has been introduced recently in South Africa, with strong political will, and available since February 2014. It had been offered at no cost to the user in the public health centres.

Implanon NXT, is a single rod contraceptive implant measuring 40mm x 2mm, it contains 68 mg of etonogestrel and delivers a sustained daily dose enough to suppress ovulation for three years.[1,6] The initial release rate is 60-70ug/24 hours for the first 3 months which reduces gradually to 40 ug/24 hours by the end of 1 year and 25 – 30 ug/24 hours at 3 years. Women with lower body weight achieve higher serum levels.[8] Little evidence is available for the use in obese women because no pregnancy occurred in overweight or obese women using the implant[10] and this highly effective and long acting contraceptive may be a perfect choice for obese women too.

After removal of Implanon, serum concentrations are undetectable within one week, with immediate return of ovulation and fertility.[6,8] It takes less than one minute on average to insert Implant, with haematoma and bleeding at the site as possible complications, and it takes 3.6 minutes to remove it, but with scarring or deep seated implants, it may take longer.[10]

Side effects noted include: unpredictable bleeding, headache, and weight gain, changes in acne, mastalgia, emotional lability and depression. Few patients discontinued the use of implant due to perceived side effects other than irregular bleeding. The most common reasons were emotional lability, weight gain and acne.[9,10]

The added non-contraceptive benefits of the implant are that it reduces the risk of ectopic pregnancy and pelvic inflammatory disease; it improves dysmenorrhoea; and it can be used by women with oestrogen contraindications and breastfeeding mothers.[11]

The contraceptive efficacy of the progestin only implants is reduced by enzyme inducing drugs such as antiretroviral, efavirenz; some anti-epileptics; some antibiotics and anti-TB, rifampicin. Extra measures are advised for women on short acting enzyme inducing agents, and the implant should not be recommended for women on long term enzyme inducers.[12]

In South Africa, the large majority (82%) of removers had discontinued the implant within a year of insertion and the main reasons were the side effects, specifically intolerable bleeding, owing to poor pre counselling.[13,14]

Despite the high effectiveness and advantages of this implant, it had been underutilised worldwide[8] with the estimation of 0.2% of use .[11] And in 2016, only 4% of women were found to be using implant in South Africa with 25% still on injectable.[14] The highest barrier to the implant use is reported to be the high cost, that includes implants and equipment for insertion; training providers with insertion and removal skills and the time involved.[11] The discontinuation of Implanon is low once users are counselled.[9]

Providers still needed guidance on counselling and clinical management of bleeding patters and other side effects.[14]

Implant services were described as the biggest family planning programme introduced in South Africa, in the public sectors. There were more than 6000 health care workers trained with regard to implant provision, with a focus on insertion. But the roll out has been undermined by adverse events and negative user experiences related to inadequate quality of care. [15]

This research was done in Odendaalsrus, the oldest mining town in the Lejweleputswa District Municipality of the Free State Province in South Africa. The area is 30.61km^2. Total population of 9393 (Census SA 2011) with female population of 4280 and male 0f 5113. This area was chosen as the researcher

residence there in. There are 5 local clinics in the area, one is in the town of Odendaalsrus and other 4 are in the townships. There is also one, 86 beds, district hospital in the area, which is a part of Thusanong/Nala/Mohau District Hospital Complex in the Lejweleputswa district.

3. AIM

To explore the knowledge, attitude and practice (KAP) of women towards contraceptive implant, Implanon, in Odendaalsrus, Lejweleputswa district, Free State Province.

4. METHODOLOGY

4.1 Objectives

1. To evaluate the knowledge of women on Implanon;
2. To determine the attitude level of women towards Implanon;
3. To find out about the Implanon practice by women in Odendaalsrus; and
4. To establish the availability and the use of Implanon at the clinics.

4.2 Study Design

A cross sectional, prospective, descriptive study was done focusing mainly on KAP.

4.3 Sample/Study participants

Women, aged between 18 and 45, attending 5 local clinics in Odendaalsrus comprised the target population. The study/data collection took place during the period from 10 May to 07 June 2017. The sample was taken from women attending local clinics in Odendaalsrus. This was a convenience sample of women who attended the clinics.

4.3.1 Sample size

During this study, 500 questionnaires were handed out on a voluntary basis to patients attending the 5 local clinics, 100 questionnaires each clinic. A total number of 450 completed questionnaires were returned back.

4.3.2 Sample selection.

Women attending any of the above 5 clinics during the study period, were approached and requested to participate in the study on a voluntary basis. Incentive in the form of 2 sweets were offered to those participating.

4.4 Measurement.

The data was collected using a semi structured questionnaire which was adopted from other studies, but modified and changed for the area specific setting. (See Appendix A) The respondents completed the questionnaires themselves, which were translated into English, Afrikaans and Sesotho, all three local languages of this area.

The identified professional nurse in each clinic distributed and collected the questionnaires. The study was performed over a 4 week period and the sample size was calculated from a population which visited a clinic each month. Information on participant's socio-demographic characteristics, knowledge, attitude and practice of women towards Implanon had been sought.

A separate data sheet / or questionnaire was used and distributed to each clinics to establish the availability and the use of Implanon from the facilities point of view. Operational managers were requested to fill in this data sheet. (See Appendix B).

Consent was implied by the participant agreeing to answer the questionnaire.

4.5 Statistical analysis

The analysis was done in collaboration with the biostatistician who formed part of the research team and hails from the department of biostatistics of the University of the Free State.

4.6 Ethical aspects

4.6.1 Participant confidentiality

Confidentiality of the participant's information was upheld by using research specific identification numbers.

4.6.2 Informed consent

Informed consent from participants who completed the questionnaire was implied by virtue of completing it. All were informed beforehand though information leaflet.

4.6.3 Ethical committee approval

Ethical approval to conduct this study was obtained from the Free State University, HSREC UFS (HSREC 188/2016) committee on the 4th of May 2017. (Appendix C)

4.6.4 Authority approval

The permission to carry out the study was also obtained from Free State department of health on the 18th April 2017 after ethical approval was given. (Appendix D)

The district manager and the facilities managers gave permission immediately after receiving the approval from department of health.

5. RESULTS

5.1 The availability and the use of Implanon in the clinics.

It has been shown that all 5 clinics, but one, provide all methods of family planning. These would include: IUD, Injectable, Pills, condoms and Implant.

The one clinic doesn't provide for implant contraceptive, but have all their patients referred to the nearby clinic for the specific family planning method. See Table 1 below.

Table 1: The available contraceptives in the clinics

clinic	IUD	Injectable	pills	condoms	implant
A	✓	✓	✓	✓	○
B	✓	✓	✓	✓	✓
C	✓	✓	✓	✓	✓
D	✓	✓	✓	✓	✓
E	✓	✓	✓	✓	✓

The service is provided for on a daily basis and all forms of contraception are readily available, and there is no report of them having been out of stock throughout the year(s).

They have equipment and other resources needed for the provision of quality service of family planning and the equipment are in a good functioning state.

These equipment would include; artery forceps, Allis tissue, Vulsellum and Tenaculum forceps, uterine sound, Sims and Cusco speculum; retractor, needle holder, scalpel, working lamp as well as sterilisers.

The instruments needed for insertion and removal of implant have been shown to be available in each of the clinics. The instruments are as shown in table 2 below.

Table 2: Instruments for insertion and removal of implant

Instruments:	
Light source	
Instrument tray and bowls	
Holding forceps	
Mosquito forceps	
Scalpel handle and blades	
implants	
Sterile gloves and drapes and gauze	
Antiseptic solution	
lignocaine	
Syringes and needles	
Band aid and skin bandage	

There is a sign post outside each facility showing the availability of family planning service and the information materials are available at the clinics according to: flip chart, pamphlets, wall charts, and brochures.

The health facilities have a contraceptive reminder card as well as a client screening checklists for initiation of the new and previous family planning users.

Registered nurses are the primary providers of family planning services at these facilities and they have a maximum of three nurses per clinic offering these services.

Each clinic sees between 53 and 134 family planning clients a month, see figure 1 below.

And there are copies of updated guidelines for delivering of family planning services and they have at least a yearly supervisory visit to review family planning service provision.

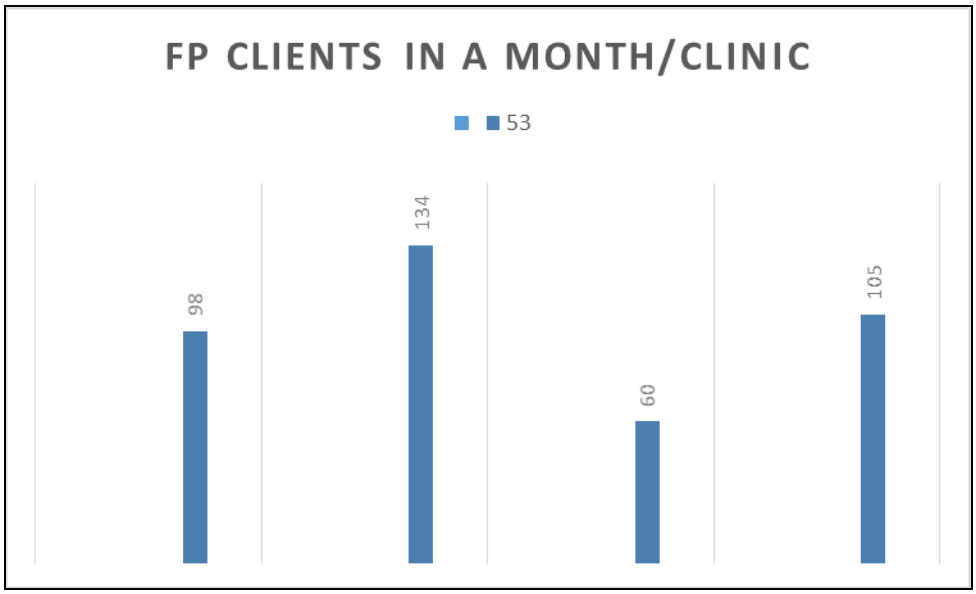

Figure 1: Number of family planning clients in a month/clinic

5.2 Patient participant's

During this study, 500 questionnaires were handed out to patients on a voluntary basis. A total of 450 questionnaires were received completed.

A response rate of ninety percent can be calculated, as demonstrated in Table 3.

Table 3: The response rate per clinic

Clinic name	Number of participants	Percent (%)
A	82	18.22
B	96	21.33
C	98	21.78
D	83	18.44
E	91	20.22

Health service visited by the respondents on the day they filled in the questionnaire were: family planning 37.1% a, reasons other than family planning 35.6%, antenatal care 6% and postnatal care about 5%. In 16.3% it was unknown which service the participants visited for.

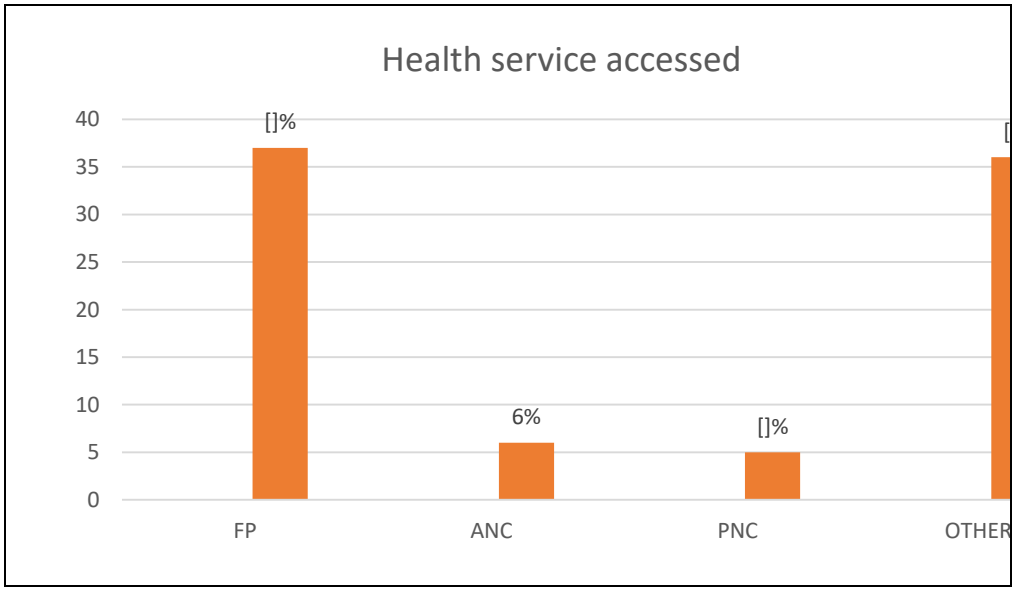

Figure 2: Health services accessed

5.3 Demographic characteristics of respondents

As demonstrated in the table 4 below, the age of the study sample was between 18 and 45 years old with a mean age of 28.8 years (SD:6.85).

The majority of the participants were single 71%, and they classified themselves as from the Christian religion 89 %, with 61.4% being unemployed and 18 % registered as students. Eighty four percent had two and more children already.

Table 4: Sociodemographic information of the patients

Age			
Mean	**Std Dev**	**Minimum**	**Maximum**
28yrs	6.8yrs	18yrs	45yrs

	category	**Number of patients**	**Percentage (%)**
Marital status	Single Married Divorced widowed	317 109 13 5 N=444	71.4 24.6 2.9 1.2
religion	Islam Christian others	16 396 32 N=444	3.6 89.2 7.2
occupation	Employed Unemployed Scholar/student	92 269 77 N=438	21 61.4 17.6
Education level	Primary Secondary tertiary	18 262 12 N=293	6,1 89 4
gravidity	1 2 3 4 5	68 363 2 1 1 N=435	15.6 83.5 0.46 0.23 0.23

5.4 Questions on knowledge of women towards contraceptives

Participants were asked about their awareness of family planning methods and those who have heard about family planning before were 398/450 (88%), and 39 (9%) of them claimed they had never heard of any form of contraception, while 13 (3%) of them did not respond.

Majority of the participants that had heard of contraception (64.8%) first heard about contraception in the public health centre, a further 19.5% heard about contraception via the radio and 7.5% obtained information from private health centre, while 8.2% got the information from other sources. N=415

Table 5: Sources of information on contraception

Source	**N (%)**
Public health centre	269 (64.8%)
Private health centre	31 (7.5%)
TV/Radio	81 (19.5%)
others	34 (8.2%)

The majority of the patients knew about injectable (69%). About 51% knew about implant and a further 28% about the IUCD.

Forty three percent thought that IUCD causes heavy bleeding, whilst 60% thought they were the cause of weight gain, 28% were under the impression that IUCD's cause more menstrual pain, and 15.6% that IUCD's prolonged menstrual bleeding, 16% inter menstrual bleeding, and 11% persistent amenorrhea.

Forty three percent (43.4%) thought that implants cause heavy bleeding, 23% were under the impression that the hormone causes weight gain and 25% menstrual pain. Of the respondents, 15% thought that implants were responsible for prolonged

bleeding, 21% for intermenstrual bleeding and 10% for persistent amenorrhea. See Table 6.

Table 6: Perception of implanon side effects by patients (n=398)

Implant side effect	No. of responses
Heavy bleeding	43%
Weight gain	23%
Menstrual pain	25%
Prolonged bleeding	15%
Intermenstrual bleeding	21%
Persistent amenorrhea	10%

Forty percent of respondents thought injections lead to heavy bleeding, 19, 1% of them thought weight gain was a side effect of injections.

Twenty-nine thought injectable are responsible for more menstrual pain, 16, 3% for prolonged bleeding, 26, 6% for intermenstrual bleeding, with 18, 3% for persistent amenorrhea. (n=398)

When asked about the length of effective protection from pregnancy, 46% said IUCD provides effective protection for a period of 3 to 6 months with 30% supporting a period of 6 months to 5 years and 24% claimed a period of 5 to 10 years. (n=333).

When asked how long implanon provides safe protection provides, 33% said implanon provides effective protection from pregnancy for a period of 3 to 6 months, 50.5% said a period of 6 months to 5 years and 16% said 5 to 10 years. (n=322)

Table 7: Duration of effective protection of implanon (n=322) and injections (n=346)

	3-6 months	6 months to 5 years	5-10 years
How long does implanon protect from pregnancy	33%	50.5%	16%
How long does injection protect from pregnancy	70%	17%	13%

When asked about how long injections provide protection from pregnancy for, 70% of respondents claimed for a period of 3 to 6 months, 17% for a period of 6 months to 5 years and 13% said a 5 to 10 years.(n=346) (Table 7)

With respect to the application of the IUCD, 57% of respondents said IUCD is inserted in the womb, however 22% thought it is inserted into the arm, with 14% under the impression it is inserted into the buttock and 7% said in the other areas of the body. (n=398)

When asked about the insertion of the implanon, 19.1% of respondents said implant needs to be inserted into the womb, 68.3% into the arm, 7.5% into the buttock and 5.1% in the other area of the body. (n=398).

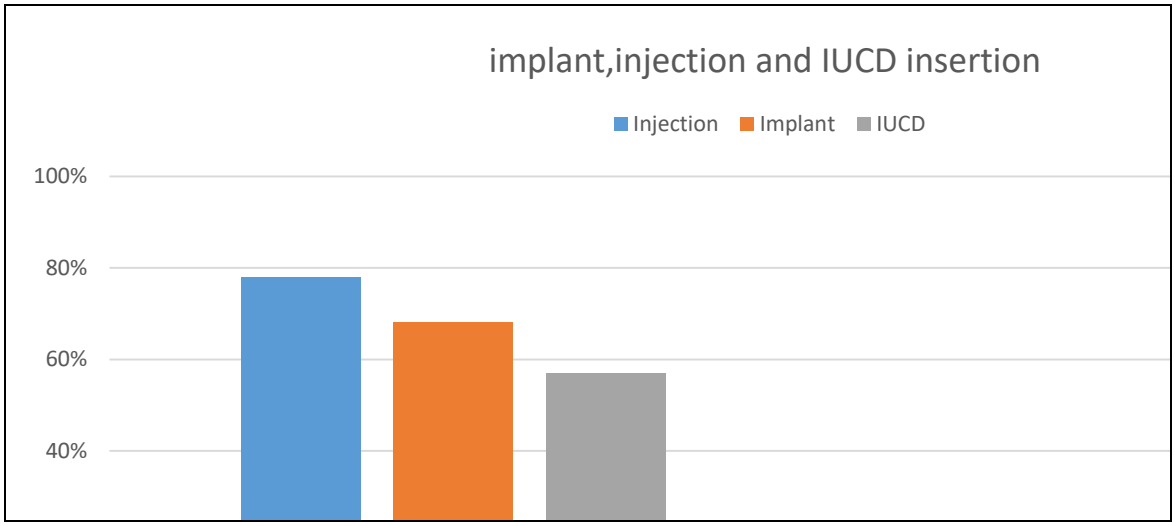

Figure 3: Injection, Implant and IUCD insertion (n=398)

When asked how the injectable contraceptive are administered, 6.28% of the respondents claimed they are administered in the womb, 12% in the arm, 78% in the buttock and 3% in the other parts of the body (n=398). See figure 3 above, demonstrating the response with regards to the insertion of the contraceptives. The majority knew about the correct insertion sites.

5.5 Questions on attitude of women towards LARC

Majority of the women 58%, agreed that the IUCD, implant and/or injectable contraceptives can effectively prevent pregnancy from occurring. Only 21.5% disagreed, with 20% not being sure. Seven patients did not answer. (n=391)
On the issue of permanent infertility, 44% of respondents disagrees that IUCD, implants and injectable contraceptives can cause permanent infertility. Thirty five percent did not know and 21% agreed.

Of the 450 respondents, 230 (59%) agreed that they would choose the LARC as a form of contraceptives if they don't want to have children in the next 2 years, 79 (20%) would not choose this method and 83 (21%) don't know if they'd choose this method. See figure 4 below.

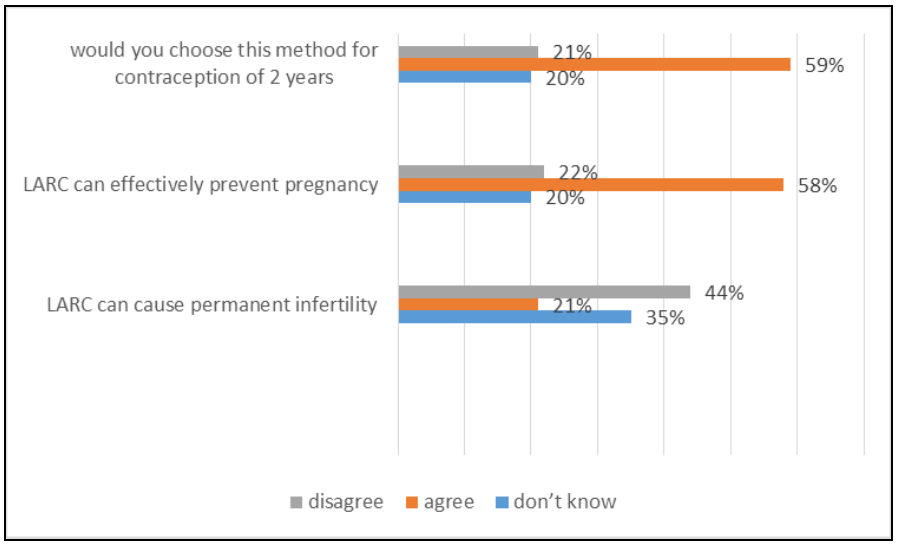

Figure 4: Attitude towards LARC (n=391)

Two hundred and thirty (59%) respondents disagreed that IUCD, implant and injectable should be used by a married couple. One hundred and seven (27%) agree and fifty four (14%) did not know.

One hundred and eighty three (47%) of patients disagree that IUCD, implant and injectable should be used by an unmarried couple. One hundred and forty six (38%) of patients agree, and sixty (15%) don't know. See figure 5.

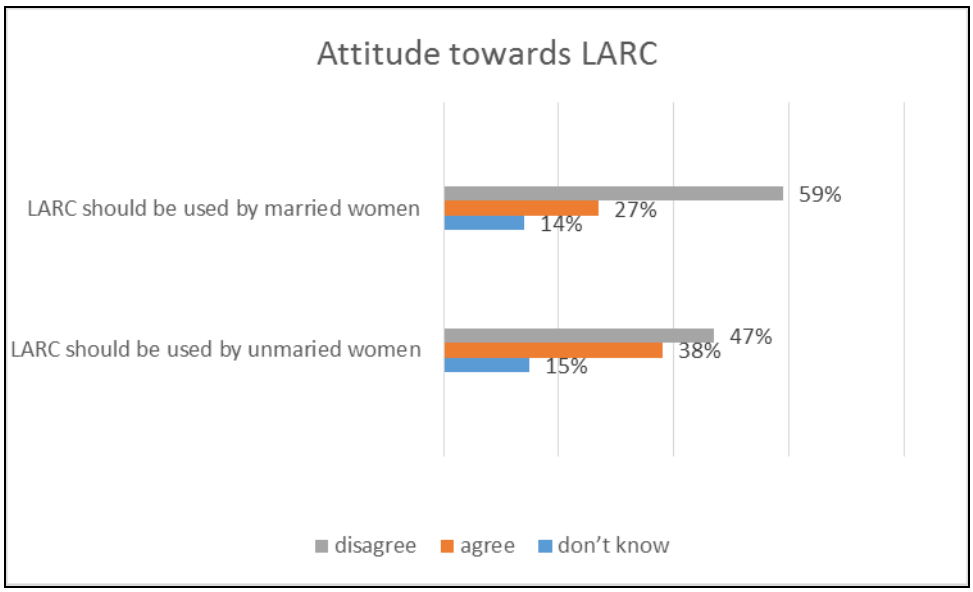

Figure 5: Attitude towards LARC and marriage (n=391)

Two hundred and forty eight (64%) patients agree that IUCD best prevents pregnancy from occurring. Sixty five (17%) disagree and seventy five (19%) don't know.

Two hundred and sixty two (68%) patients agree that injectable best prevents pregnancy from occurring. Sixty (15%) disagrees and sixty six (17%) don't know.

Two hundred and forty five (63%) patients agree that implant best prevents pregnancy from occurring. Sixty one (15%) disagree and eighty five (22%) don't know. See figure 6 below.

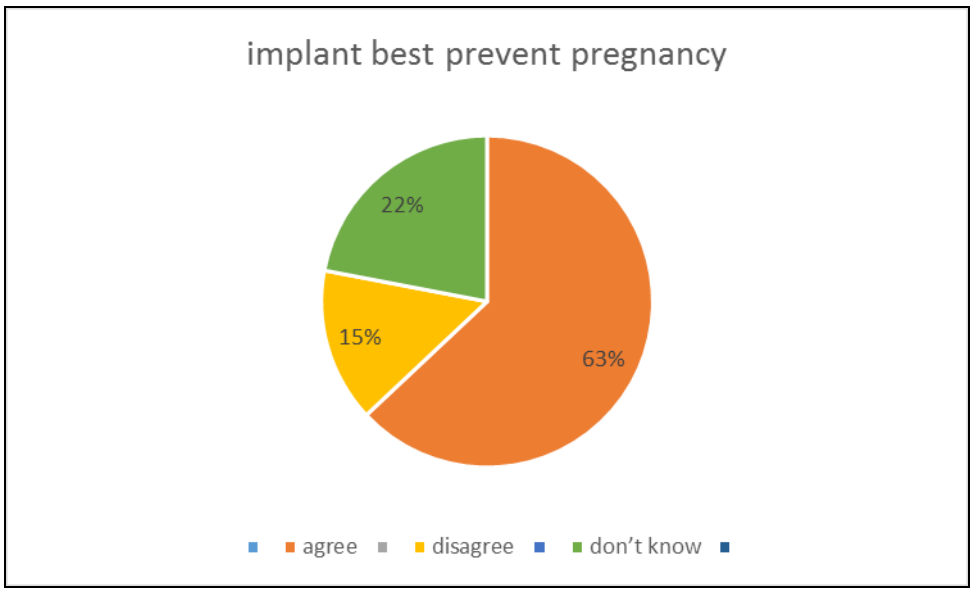

Figure 6: Attitude towards LARC (implant)

Three hundred and eleven (81%) patients say that women should take responsibility for using contraceptives. Forty eight (13%) disagree and twenty nine (7%) don't know.

Two hundred and seventy eight (71%) patients say that men should take responsibility for using contraceptives. Seventy six (19%) disagree and forty (20%) don't know.

Three hundred and twenty five (82%) say both women and men should both take responsibility for using contraceptives. Thirty six (10%) disagree and thirty one (8%) don't know. n=392. See figure 7 below.

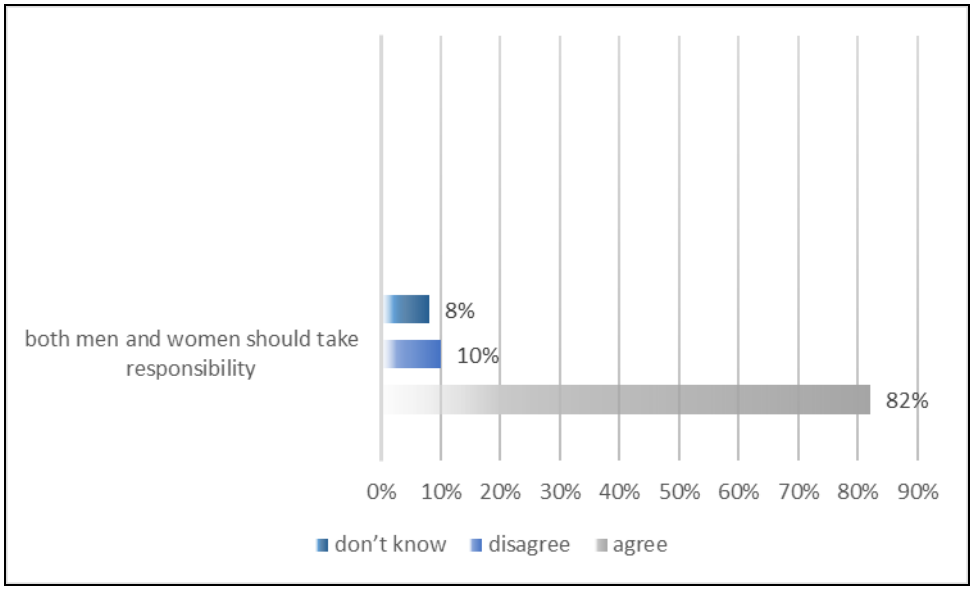

Figure 7: Attitudes towards contraceptives

5.6 Questions on the practice of women towards contraceptives

Two hundred and sixty four (62%) of 428 patients are currently using family planning methods and one hundred and sixty four (38%) are not on any form of contraception.

Sixty-two percent on contraceptives, and only twenty-six (10%) are on implant and the majority are on injectable, one hundred and eighty-eight (71%). Three (1.1%) are on IUCD and forty-two (16%) indicated that they are not using any of the mentioned forms. Figure 8 below demonstrate the current use of FP.

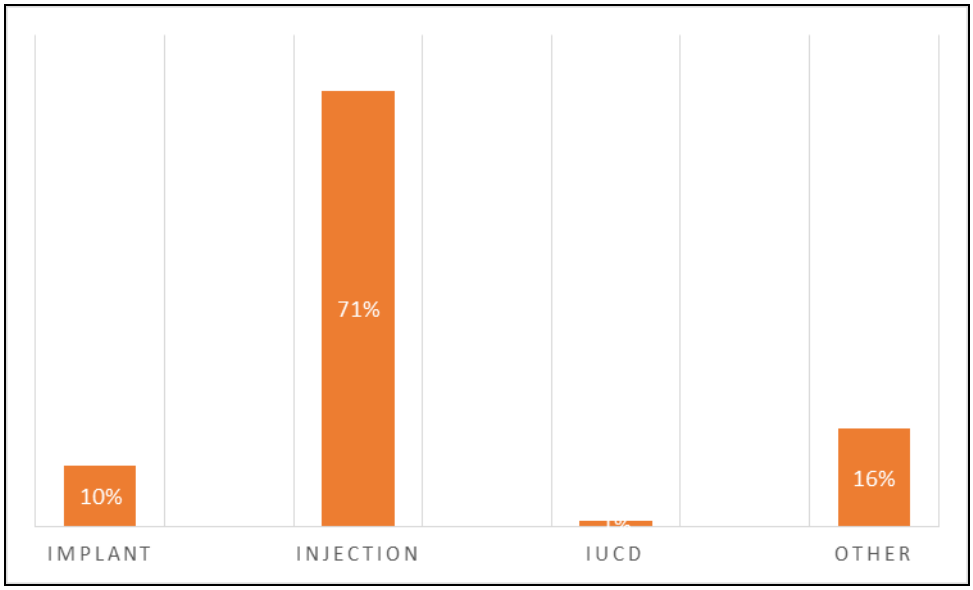

Figure 8: Currently use of family planning (n=428)

Three hundred and five (71%) patients admitted to having a family planning provider informing them about other forms of contraceptives methods.

One hundred and seven (25%) patients denied having been informed. And 16 (4%) patients did not respond.

One hundred and sixty-four (38%) patients were first offered counselling on family planning before they were ever pregnant. One hundred and forty-eight (35%) after having a baby and eighty two (19%) during pregnancy. And 34 (8%) patients did not respond.

Four hundred and fifty patients were part of the survey, one hundred and thirty-seven (30%) patients, went to clinic at the time of the data collection to obtain contraceptive. Eighty three (61%) went for injectable and nine-teen (14%) went for implant, nine (7%), eight (5%), seven (4%) went for IUCD, pills and condoms respectively.

5.7 Questions on the previous use of Long Acting and Reversible Contraceptives

Two hundred and fifty-six (61%) respondents admitted to the previous use of IUCD, implant and/or injectable and twenty-four (9%) used implant with the majority, two hundred and eleven (82%) having used injectable contraceptives before.

6. DISCUSSION

In the past, the commonest contraceptives in South Africa were the combined oral contraceptive and injectable. Long acting reversible contraceptives offer the most benefit and it is cost effective, this includes implanon.

This research was performed to measure the knowledge, attitude and practice of implanon by women in the Lejweleputswa district, FS. The department of health introduced it in February 2014.

The response rate in this study was measured as 90% with a mean age of the respondents of 29 years. The majority of the respondents were multiparous and had secondary level education. This is similar to the documentation of the study that was conducted in Nigeria.[11] 71% of women were single, this shows that majority of participants were potentially family planning clients.

Most of the participants had one child (49%) followed by 2 children (29%) and this reveals the population target that would benefit a great value from family planning and in particular, an implant.

Sixty six percent (276) of the respondents of this study went to the clinic for contraceptive purposes, while only 14% (Of those 276) went for the implant and the majority attended a consultation for injectable contraceptives.

The knowledge about family planning in this study was found to be 91% and which was slightly lower than the study done in Ethiopia 94.7% and 98.1% in Makerere University. And 50.8% of the participants were aware of Implanon, lower than in South West Ethiopia 73, 5% and Makerere University 91.7%.[16,18]

The source of information mentioned by the majority 64.8%, was a public health centre. This was a similar finding with a study conducted in Northern

Ethiopia (66%) [5] which suggested that public health centres attend to issues of women and their health by providing information through various health programmes, but this could also mean that women who do not utilise the public sectors are inclined to be missed.

The majority of the participants thought that most common side effect caused by both Implanon and IUCD was heavy bleeding, 43, 4% and 43, 7% respectively, this is slightly lower than in Mekelle University 50.5% [5] and higher than the study done in South West Ethiopia 29.47%. In one study done in South Africa in 2017, it was discovered that a large number of women who were previously on Implanon had it removed due to intolerable bleeding (82%). Weight gain 25.3% was another perceived side effect.

It has been documented that few patients would discontinue the use of implanon due to perceived side effects other than bleeding.[9,10] Those side effects include: emotional lability, weight gain and acne and about 9, 2% of the users would discontinue due to desire for pregnancy.

As much as the participants thought of heavy bleeding as a common side effect, the discontinuation of implanon before 3 years is low once the users receive adequate pre-insertion counselling, which would include the information that bleeding changes are common in the first few months of use, and tend to diminish over time.

The participants also thought that implant causes intermenstrual bleeding 21%, prolonged bleeding 15% and menstrual pain 25%. Most common side effect associated with being unpredictable bleeding.

Complications were documented in about 5.1% of the respondents and only 2% of the participants had irregular vaginal bleeding as documented in a study conducted in Nigeria.[11]

The majority of the participants, 50, 5%, were aware that implanon provides protection from pregnancy for a period longer than six months, which is for three years, but this was low as compared to the study findings in Kampala district, Uganda 69, 9% and SW Ethiopia 74.85%.[4,16] And in South Africa about 99% [15] his may be due to its recent introduction in the public sector, and the different distribution of information across the country.

Implants consists of a thin rod made from flexible plastic that is inserted just under the skin of a woman's upper arm and it would release a steady amount of etonogestrel in order to suppress pregnancy for three years.[1,6] Just like other hormonal methods, implant work by suppressing ovulation and thickening cervical mucus to prevent sperm penetration.

Most respondents knew about the administration site for implant (68%) but this was still lower than documented by the Kampala district study. (80, 2%)

Regarding the attitude to long acting reversible contraceptive this study revealed that 58% of the respondents agreed that the LARC can effectively prevent pregnancy from occurring, higher than what was found in South African study 29% [18] and was lower than the findings of 94.5% in Kampala.[4]

Of the local participants, 44% disagreed that LARC can cause permanent infertility compared to 67.1% in Kampala and 35% did not know and 21% agreed. A majority of 59% agreed that they would choose this form of contraception if they don't want to have children in the next two years. In South Africa, 68% thought implant was superior to injectable.[15]

Most participant (45%) disagreed that LARC should be used by single women only. And 59% disagreed that LARC should be used by married couple, this is the majority and there is a similar finding in Kampala (80, 9%).[4] whilst 47% disagreed that it should be used by unmarried women.

The participants uniformly agreed that implant, IUCD and injection best prevent pregnancy and 82% of them agreed that both men and women should take responsibility for using contraceptives.

With regards to the practice of family planning, 62% of women were on family planning method similar to 62.2% in Makerere University.[18] This study measured the majority being on injectable contraceptives 71%, with only 10% on implant, similar to the findings in Addis Ababa Ethiopia 10.2% [17] yet lower than in SW Ethiopia 16.5%.[16]

Sixty one percent admitted to the previous use of LARC and stated reasons of health concerns (19%) as the mayor cause of discontinuation with fear of side effects as the second most common cause (15%).

7. LIMITATIONS

Patient participation was restricted to the public sector only and did not cover private sector users and the women not attending the clinic.

Sampling bias may have been present as teenagers were excluded during this study, only selecting women between ages of 18 and 45 years.

Respondents may have misunderstood the questions and not distinguished the fine details concealed in the questionnaire, because the questionnaire was self-administrative, there was no use of field workers (neutral people) so the participants had nurses to go to for clarification.

The measuring instrument was not validated and standardised, but developed for the purpose of gaining local knowledge on Implanon.

Inferential tests were not done. And ten percent of non-responders which could have resulted in bias of the measuring outcome.

8. CONCLUSION

This study has indicated that the knowledge of implant contraceptive is poor in the local area as compared to studies done in South Africa and other countries.

Low number of women were aware of the 3 years effective protection from pregnancy offered by implant but most of them agreed that it does offer sufficient protection. And a high number of participants (68%) were aware of the correct area of insertion of the implant.

Participants had a high perception of side effects caused by the implant, higher than documented in other studies, nevertheless, the majority agreed that they will not suffer side effects like infertility while using implant, hence 59% agreed that they would choose this form of contraception in the future. They had a positive attitude towards implant and agreed that both female and male partners are responsible for the use of contraception and did not prejudice according to marital status. Sixty five percent had public sector as a source of information with regards to contraception and including implant.

Family planning use was 62% and only 10% of those were on the implant. It was indicated that the clinics/health facility plays a major role with the awareness of contraceptives and the availability thereof. It has never been found to have a health facility with no implant contraception at any given time during the study. All the necessary instruments needed to render the service were in a good functional state and no client was sent home citing the unavailability of resources or healthcare provider.

9. RECOMMENDATIONS

It is recommended that the clinics continue to make the clients aware of the availability of the implant and to improve the knowledge and the benefits thereof and give a proper pre counselling.

It is also advisable to include women who may not be attending the clinics by reaching them through home visits and the community health care workers who can provide information with the info leaflets and pamphlets and referral to the nearby clinics if more info and clarification is needed.

The use of local and national radio stations through their educational programmes will also be utilised to further the spread of information on implant and will also open social media accounts, a face book page and a twitter account, affording an interchangeable platform.

REFERENCES

1. Patel M, Contraception: Everyone's responsibility, SAMJ, S. Afr.med.j.vol.104 No.9. Sep.2014

2. Knowledge and perception on long acting and permanent contraceptives methods in Adigrat town, Tigray, Northern Ethiopia. International Journal of family medicine, Vol 2014(2014), Article ID 878639, 6 pages.

3. National Department of Health. National Contraception and Fertility Planning Policy and Service Delivery Guidelines and National Contraception Clinical Guidelines, 2012, p 2. Pretoria: Department of Health,2012

4. Anguzu R, Tweheyo R, […], and Serwadda D. Knowledge and attitude towards use of long acting reversible contraceptives among women of reproductive age in Lubaga division, Kampala district, Uganda. 2014; 7: 153. Doi:10.1186/1756-0500-7-153

5. Alemayehu M, Balachew T, Tilahunt T. Factors associated with utilization of long acting and permanent contraceptive method among married women of reproductive age in Mekelle Town, Tigray region north of Ethiopia. BMC pregnancy childbirth. 2012;12(1):6, doi:10.1186/1471-2393-12-6

6. Meckstroth KR, Darney PD, Chapter 38, vol. 6. Implantable contraceptives, 2004 edition.www.glom.com/resources/glowm/cd/pages/v6/v6co38.htr

7. Bachorik A, et al. Adolescents and Young Adult Women's Knowledge of and Attitudes toward Etonogestrel Implants. J Paediatric Adolesc Gynecol.2015 Aug; 28(4):229-33. doi:10.1093/j.jpag.2014.08.002.Epub 2014 Aug 12

8. Promoting use of long acting reversible contraceptives. Austin J Obstet Gynecol 1(6):id 1027(2014) pg1-6

9. Long Acting Contraceptive Method Utilization and Associated Factors among Reproductive Age women in Arba Minch Town, Ethiopia. Greener Journal of Epidemiology and Public health. ISSN:2354-2381, vol 2(1),p 23-31, July 2014

10. Long Acting Reversible Contraceptives. Obstet Gynecol 2011; 117:705-19. Doi:10.1097/AOG.06013e318200e2p0

11. Abasiattai AM, Utuk NM, Inyang-Etoh EC. Subdermal contraceptive implants: Profile of acceptors in a tertiary hospital in Southern Nigeria. International Journal of Gynecology, Obstetrics and neonatal care, 2014, vol.1, 9-13

12. Roland S, Searle S, Dove Press vol.5, 2014. P 73-84. Doi http://dx.doi.org/10.2147/OAJC.S55968

13. User perspectives on Implanon NXT in South Africa: A survey of 12 public sector facility. SAMJ,S.Afr.med.j.vol.107 n.10 Cape Town Oct.2017

14. Uptake and early removal of Implanon NXT in South Africa: Perception and attitude of health care workers. SAMJ,S.Afr.med.j.vol.107 n.10 Cape Town Oct.2017

15. Lessons learnt from the introduction of contraceptive implant in South Africa. SAMJ,S.Afr.med.j.vol.107 n,11 Cape Town Nov 2017

16. Yamane Y, B Birie. Assessment of knowledge. Attitude and utilization of long acting family planning method among women of reproductive age group in Majizone, South West Ethiopia, 2016

17. Tizita D (2015) assessment on utilization of long acting reversible contraceptive methods and its associated factors among reproductive aged women in selected health centres in Addis Ababa, Ethiopia

18. Knowledge, sources and use of family planning methods among women aged 15-49 years in Uganda: a cross sectional study. The pan African Medical Journal. 2016; 24:39.

APPENDICES

APPENDIX A: QUESTIONNAIRE IN ENGLISH

A.		
Questionnaire number		
Date of Interview		
Clinic name		
Health Service accessed	Family Planning	
	Antenatal	
	Postnatal	
	others	

SOCIO DEMOGRAPHIC INFORMATION:
Mark an appropriate answer with a cross (X) in a box on the right hand side.

B.	
B1. How old are you? _____ Years (age in Completed years)	
B2. What is your marital status? Single1 Married Divorced Widowed	
B3. What is your religion? Islam Christian Others (specify)	
B4. What is your occupation? Employed Unemployed Scholar/student_____	
B5. What is your highest level of formal Education achieved? Primary Secondary Tertiary Highest grade achieved Never attended school	
B6. How many times have you been pregnant? None Others	

QUESTIONS ON KNOWLEDGE

I would like to ask you about contraceptive methods that can be used to delay pregnancy.

C. QUESTION	ANSWER	
C1. Have you ever heard of family planning methods	YES	
	NO	
C2. Where did you FIRST hear about family planning methods from? (tick only one answer)	Public health centre	
	Private health centre	
	TV/Radio	
	Others	
C3.a. Which of the following family planning methods have you ever heard of? (Tick all that you have heard of)	Combined pills	
	Progesterone only pill	
	IUD	
	Injectable	
	Implants	
	Condoms	
	Spermicides	
	Sterilisation	
	Female condoms	
	Vasectomy	
	Others	
C4. Which side effects do you think Intra Uterine Contraceptive Device cause (Tick all that apply)	Heavy menstrual bleeding	
	Inter-menstrual spotting	
	Menstrual pain	
	Prolonged menstrual bleeding	
	Persistent amenorrhea	
	Weight gain	
	Others (specify)	
C5. which side effects do you think implants cause(tick all that apply)	Heavy menstrual bleeding	
	Inter-menstrual spotting	
	Menstrual pain	
	Prolonged menstrual bleeding	
	Persistent amenorrhea	
	Weight gain	
	Others (specify)	
C6. Which side effects do you think injectable cause(tick all that apply)	Heavy menstrual bleeding	
	Inter-menstrual spotting	
	Menstrual pain	
	Prolonged menstrual bleeding	
	Persistent amenorrhea	
	Weight gain	
	Others (specify)	
C7. How long does Intra Uterine Contraceptive Device (IUCD) provide effective protection from pregnancy?	3 to 6 months	
	6 months to 5 years	
	5 to 10 years	

C8, How long does implanon provide effective protection from pregnancy?	3 to 6 months	
	6 months to 5 years	
	5 to 10 years	
C9. How long does injectable provide effective protection from pregnancy?	3 to 6 months	
	6 months to 5 years	
	5 to 10 years	
C10. Where is the intra uterine contraceptive device (IUCD) inserted?	In the womb	
	In the arm	
	In the buttock	
	Other(specify)	
C11. Where is the contraceptive implant inserted?	In the womb	
	In the arm	
	In the buttock	
	Other(specify)	
C12. Where is the injectable administered?	In the womb	
	In the arm	
	In the buttock	
	Other(specify)	

QUESTIONS ON THE ATTITUTE

For the following statements, please tick; 1= strongly disagree, 2= disagree, 3= don't know, 4=agree and 5= strongly agree; as appropriate

D. QUESTION	ANSWER				
D1. Intra uterine contraceptive device(loop), implant and/or injectable contraceptives can effectively prevent pregnancy from occurring	1	2	3	4	5
D2. Intra uterine contraceptive device(loop), implants and injectable contraceptives can cause permanent infertility	1	2	3	4	5
D3. Would You choose this method if you don't want to have children in the next 2 years?	1	2	3	4	5
D4. Implants, Intra uterine contraceptive device(loop) or injectable are mainly used by those who are promiscuous	1	2	3	4	5
D5. Intra uterine contraceptive device(loop), implant or injectable should be used by married couples	1	2	3	4	5
D6. Intra uterine contraceptive device(loop), implant or injectable contraceptives should be used by unmarried women	1	2	3	4	5
D7. Intra uterine contraceptives best prevent pregnancy from occurring	1	2	3	4	5
D8. Injection best prevent pregnancy from occurring	1	2	3	4	5
D9. Implants best prevent pregnancy from occurring	1	2	3	4	5
D10. Women should take responsibility for using contraceptives	1	2	3	4	5
D11. Men should take responsibility for using contraceptives	1	2	3	4	5
D12. Both women and men should take responsibility for using contraceptives	1	2	3	4	5

QUESTIONS ON THE PRACTICE OF LONG ACTING REVERSIBLE CONTRACEPTIVES

E. QUESTION	ANSWERS	
E1. Are you currently using family planning methods?	YES	
	NO	
E2. Which of the following methods are you currently using?	Intra uterine contraceptives(loop)	
	Implant	
	Injection	
	None of the above	
E3. Are you currently using contraceptives OTHER than Intra uterine contraceptive device (loop), injectable or implant?	YES	
	NO	
E4. If yes, which contraceptives are you using?		
E5. How many living children did you have at that time you started using the current LARC method?	___ Child (ren)	
	No one	
E6. Did a Family Planning provider ever tell you about other contraceptive methods that you could use?	YES	
	NO	
E7. During which period was the family planning counselling first offered to you?	During pregnancy	
	After having a baby	
	Before I was ever pregnant	
E8. Did you come here today to obtain a specific type of contraceptive?	YES	
	NO	
E9. If yes, which method did you want to use today?		
E10. Is your partner/spouse using any form of contraceptive?	YES	
	NO	
E11. If yes, which method?	Male condoms	
	others	

QUESTIONS ON EVER (PREVIOUS) PRACTICE OF LONG ACTING REVERSIBLE CONTRACEPTIVE (LARC)

F. QUESTION	ANSWERS	
F1.Have you ever (previously) used Intra uterine contraceptive device (loop), implant and /or the injectable?	YES	
	NO	
F2. If yes to F1, which method have you previously used?	Intra uterine contraceptive device(loop)	
	Implant	
	Injectable	
F3. If ever used any of these methods, which one was most recently used?	Intra uterine contraceptive device	
	Implant	
	Injectable	
F4. What was the MAIN reason for changing from the previous method to the most recent LARC ever-used? (Please tick only one number where answer options lie)	Little/no sex	
	Menopause	
	Had hysterectomy	
	Wants as many children as possible	
	Partner opposed	
	Health concerns	
	Fear of side effects	
	Inconvenient to use	
	Interfere with normal body functioning	
	Don't know	
	Others(specify)	
F5. At what age did you first use any contraceptive method?	_____ Years	
	Never used any	
	Don't remember	

APPENDIX A: QUESTIONNARE IN SESOTHO

TOKOMANE YA LENANE LA DIPOTSO YA MMOTSWA – KA SESOTHO
Tsebo, boitshwaro le ditlwaelo tsa bomme mabapi le dithibelapelehi Odendaalsrus, seterekeng sa Lejweleputswa, Foreisetata.

A.		
Nomoro ya tokomane ya dipotso		
Letsatsi la inthavu		
Lebitso la tleleniki		
Ditshebeletso tsa bophelo bo botle tse fumanehang	Thero ya malapa	
	Pele ho pelehi	
	Ka mora pelehi	
	Tse ding	

DINTLHA MABAPI LE MAEMO A MMOTSWA:
Tshwaya potso e nepahetseng ka ho taka sefapano [X] ka hara lebokose le ka letsohong le letona .

B.	
B1. Dilemo tsa hao di kae? _____ Dilemo (dilemo tseo o di qetileng)	
B2. Maemo a hao a lenyalo Ha o so nyalwe/nyale 1 O nyetswe/nyetse O hladile O mohlolohadi	
B3. Tumelo/kereke ya hao ke efe? moMoseleme moKresete Tse ding (hlalosa)	
B4. Mofuta wa mosebetsi? O a sebetsa Ha o sebetse O kena sekolo _____	
B5. O fihletse boemo bofe ba thuto ya sekolong? Poraemari Sekondari Thuto e phahameng Kereite e hodimo e o e fihletseng Ha o ka wa kena sekolo	
B6. O imme ha kae? Ho hang Tse ding	

DIPOTSO MABAPI LE TSEBO

Ke lakatsa ho o botsa ka mefuta ya dithibelapelehi e ka sebediswang ho diehisa kemaro.

C. POTSO	KARABO	
C1. Ana o kile wa utlwa ka mefuta ya thero ya malapa?	EE	
	TJHEE	
C2. Ke ho kae moo o ileng wa utlwa ka mefuta ya thero ya malapa kgetlo la pele? (tshwaya Karabo e le nngwe feela)	Ditsheng tsa bophelo bo botle tsa setjhaba	
	Ditsheng tsa bophelo bo botle tsa poraefete	
	TVing/Radiong	
	Tse ding	
C3.a. Ke mekgwa efe e latelang ya thero ya malapa eo o kileng wa utlwa ka yona? (Tshwaya kaofela eo o kileng wa utlwa ka yona)	Motswako wa dipilisi	
	Pilisi e kengwang ka hara botshehadi ba motho wa mme	
	Lupu	
	Lemao/sepeite	
	Ho kengwa sethibelapelehi popelong (Implant)	
	Dikhondomo	
	Sepemisaete	
	Ho kwalwa ha pelehi	
	Dikhondomo tsa bomme	
	Ho faolwa ha bontate	
	Tse ding	
C4. Ke ditla-morao dife tseo o nahanang hore di bakwa ke mofuta wa thero ya malapa o bitswang lupu ? (Tshwaya tsohle tseo o nahanang ka tsona)	Madi a mangata nakong ya ho ya kgweding	
	Ho ya kgweding ka ho rothela	
	Bohloko ba ho ya kgweding	
	Ho tswa madi a ho bona kgwedi nako e telele	
	Ho se ye kgweding ho hang	
	Keketseho ya boima ba mmele	
	Tse ding (hlalosa)	
C5. Ke ditla-morao dife tseo o nahanang hore mofuta wa thero ya malapa o kengwang ka hare ho popelo o ka ba le tsona? (Tshwaya tsohle tseo o ka nahanang ka tsona)	Madi a mangata nakong ya ho ya kgweding	
	Ho ya kgweding ka ho rothela	
	Bohloko ba ho ya kgweding	
	Ho tswa madi a ho bona kgwedi nako e telele	
	Ho se ye kgweding ho hang	
	Keketseho ya boima ba mmele	
	Tse ding (hlalosa)	

C6. Ke ditla-morao dife tseo o nahanang hore lemao/sepeite di ka ba le tsona (tshwaya tsohle tse ka amehang)	Madi a mangata nakong ya ho ya kgweding	
	Ho ya kgweding ka ho rothela	
	Bohloko ba ho ya kgweding	
	Ho tswa madi a ho bona kgwedi nako e telele	
	Ho se ye kgweding nako e telele	
	Keketseho ya boima ba mmele	
	Tse ding (hlalosa)	
C7. Ho nka nako e kae hore lupu e fane ka tshireletso e phetahetseng bakeng sa thibelo ya ho ima?	Dikgwedi tsa 3 ho isa hot se 6	
	Dikgwedi tse 6 ho isa dilemong tse 5	
	Dilemo tse 5 ho isa tse 10	
C8, Sethibelapelehi se lekanang le thutswana ya mollo se kengwang tlasa letlalo la lehafi se ka fana ka tshireletso e kae mabapi le thibelo ya ho ima?	Dikgwedi 3 ho isa tse 6	
	6 months to 5 years	
	5 to 10 years	
C9. Ke nako e kae eo lemao/sepeite se ka fanang ka tshireletso e phethahetseng mabapi le ho ima?	Dikgwedi tse 3 ho isa tse 6	
	Dikgwedi tse 6 ho isa dilemong tse 5	
	Dilemo tse 5 ho isa tse 10	
C10. Ke ho kae moo sethibelapelehi sa lupu se kengwang teng?	Popelong	
	Letsohong	
	dibonong	
	Tse ding (hlalosa)	
C11. Ke ho kae moo sethibelapelehi se kengwang ka hare se kengwang teng?	Popelong	
	Letsohong	
	Dibonong	
	Tse ding (hlalosa)	
C12. Lemao/sepeite se hlabuwa kae?	Popelong	
	Letsohong	
	Dibonong	
	Tse ding (hlalosa)	

DIPOTSO BOITSHWARONG

Bakeng sa diteitemente tse latelang, tshwaya 1= ho se dumele ho hang, 2= ho se dumele, 3= ho se tsebe, 4=ho dumela le 5= ho dumela ka matla; ka moo ho kgonahalang

D. POTSO	KARABO				
D1. Lupu, ho kengwa sethibelapelehi ka popelong le/kapa sepeite di ka thibela hore ho emara ho be teng	1	2	3	4	5
D2. Lupu, ho kengwa sethibelapelehi ka popelong mmoho le sepeite di ka etsa hore motho a se hlole a fumana bana ho hang	1	2	3	4	5
D3. O ka kgetha mokgwa ona ha o sa batle ho ba le bana nakong ya dilemo tse 2 tse tlang?	1	2	3	4	5
D4. Ho kengwa sethibelapelehi popelong, lupu, kapa sepeite hangata di sebediswa haholo ke batho ba ratang thobalano nako le nako	1	2	3	4	5
D5. Lupu, ho kengwa sethibelapelehi ka popelong kapa sepeite di lokela ho sebediswa ke basadi ba nyetseng.	1	2	3	4	5
D6. Lupu, ho kengwa sethibelapelehi ka popelong kapa sepeite di lokela ho sebediswa ke basadi ba sa nyalwang.	1	2	3	4	5
D7. Lupu ke mokgwa wa bohlokwahadi wa ho thibela ho ima	1	2	3	4	5
D8. Sepeite ke mokgwa wa bohlokwahadi wa ho thibela ho ima	1	2	3	4	5
D9. Ho kengwa sethibelapelehi popelong ke mokgwa wa bohlokwahadi ho thibela ho ima	1	2	3	4	5
D10. Basadi ba lokela ho jara boikarabelo ba ho sebedisa dithibelapelehi	1	2	3	4	5
D11. Banna ba lokela ho jara boikarabelo ba ho sebedisa dithibelapelehi	1	2	3	4	5
D12. Banna le basadi ka bobedi, ba lokela ho nka boikarabelo ba ho sebedisa dithibela pelehi	1	2	3	4	5

DIPOTSO MABAPI LE TSHEBEDISO YA DITHIBELAPELEHI TSA NAKO E TELELE.

E. POTSO	DIKARABO	
E1. Ha jwale o sebedisa mekgwa ya thero ya malapa?	EE	
	TJHEE	
E2. Ke mokgwa ofe ho e latelang eo o e sebedisang jwale?	Lupu	
	Ho kengwa sethibela pelehi popelong	
	Sepeite	
	Ha ho mokgwa o hlahang ho e boletsweng	
E3. Ha jwale o sebedisa dithibelapelehi tse ding NTLE le lupu, sepeite kapa ho kengwa sethibelapelehi popelong?	EE	
	TJHEE	
E4. Ebang o re Ee, ke sethibelapelehi sefe seo o se sebedisang?		
E5. Ke bana ba bakae ba phelang bao o bileng le bona nakong eo o neng o qala ho sebedisa mokgwa wa tshebediso ya dithibelapelehi tsa nako e telele?	Bana ba ___	
	Letho	
E6. Ebe mofani wa Thero ya Malapa o nile a o bolella ka mekgwa e meng ya dithibelapelehi tseo o ka di sebedisang?	EE	
	TJHEE	

E7. Ke nakong efe eo o ileng wa fumantshwa thuso ya thero ya malapa?	Nakong ya ho ima	
	Ka mora ho ba le ngwana	
	Pele ke ba moimana	
E8. Ebe o tlile mona kajeno ho tla fumantshwa mofuta o itseng wa sethibelapelehi?	YES	
	TJHEE	
E9. Ebang o re Ee, ke mokgwa ofe oo o batlang ho o sebedisa kajeno?		
E10. Ebe molekane wa hao o sebedisa o mong wa mekgwa ya dithibela pelehi?	EE	
	TJHEE	
E11. Ebang o re Ee, ke mokgwa ofe?	Dikhondomo tsa banna	
	Tse ding	

DIPOTSO MABAPI LE MEKGWA YA DITHIBELAPELEHI TSA NAKO E TELELE TSE SA ITSHETLEHANG HO MOSEBEDISI

F. POTSO	KARABO	
F1.Bophelong ba hao ebe o kile wa sebedisa lupu, sethibelapelehi se kengwang popelong, kappa sepeite?	EE	
	TJHEE	
F2. Ebang o dumela ho F1, ke mokgwa ofe oo o kileng wa o sebedisa nako e fetileng?	Lupu	
	Sethibelapelehi se kengwang popelong	
	Sepeite	
F3. Ebang o kile wa sebedisa e meng ya mekgwa ena, ke ofe oo o o boneng o sebediswa haholo mehleng ee?	Lupu	
	Sethibelapelehi se kengwang popelong	
	Sepeite	
F4. Ke lebaka lefe la BOHLOKWA le entseng hore o tlohele mekgwa ya kgale ya dithibelapelehi, mme o fetohele mekgweng e metjha? (Ka kopo, tshwaya nomoro e le nngwe feela eo kgetho ya hao e dumellanang le yona)	Nyane/thobalano ho hang	
	O se o sa hlola o ya kgweding	
	O ntshitswe popelo	
	Ho batla ho ba le bana ba bangata ka moo ho ka hlokahalang ka teng	
	Molekane a hana	
	Mabaka a bophelo bo botle	
	Tshabo ya ditla-morao	
	Hlokahala ho sebediswa	
	Lwantshana/Setisana le tshebetso e phethahetseng ya ditho tsa mmele	
	Ha ke tsebe	
	Tse ding (hlalosa)	
F5. O qadile ho sebedisa dithibelapelehi dilemong dife?	Dilemo tse_____	
	Ha ke eso di sebedise	
	Ha ke hopele	

APPENDIX A: QUESTIONNAIRE IN AFRIKAANS

F5. Hoe oud was u toe u die eerste keer 'n voorbehoedmiddel begin gebruik het?	_____ Jaar	
	Nooit voorheen enige gebruik	
	Weet nie	

A.		
Questionnaire nommer		
Datum van Onderhoud		
Naam van Kliniek		
Gesondheidsdiens benodig	Gesinsbeplanning	
	Voorgeboorte	
	Nageboorte	
	Ander	

SOSIODEMOGRAFIESE INLIGTING:

Merk af met 'n X in die gekose blokkie aan die regterkant

B.	
B1. Hoe oud is u? _____ jaar (ouderdom in die voltooide jaar)	
B2. Wat is u huwelikstatus? Enkel 1 Getroud Geskei Weduwee	
B3. Wat is u godsdiensverband? Islamities Christen Ander (spesifiseer)	
B4. Wat is u beroep? Werkend Nie-werkend Skolier/student_____	

B5. Wat is u hoogste formele Opvoedkundige vlak behaal? Primêr Sekondêr Tersiêr Hoogste graad behaal Nooit enige skool bygewoon	
B6. Hoeveel kere was u al swanger? Nooit Ander	

VRAE BETREFFENDE KENNIS

Laat my toe om u te vra oor voorbehoedmetodes wat gebruik kan word om swangerskap uit te stel.

C. VRAAG	ANTWOORD	
C1. Het u al voorheen gehoor van gesinsbeplanningsmetodes?	JA	
	NEE	
C2. Waar het u voorheen gehoor van gesinsbeplanningsmetodes? (merk net een antwoord)	Openbare gesondheidsentrum	
	Private gesondheidsentrum	
	TV/Radio	
	Ander	
C3.a. Watter van die volgende gesinsbeplanningsmetodes het u al voorheen van gehoor? (Merk alles wat u al van gehoor het)	Kombinasie pille	
	Progesteroon pil alleenlik	
	IUD	
	Inspuiting	
	Implantings	
	Kondome	
	Spermdoder	
	Sterilisasie	
	Vrouekondome	
	Vasektomie	
	Ander	
C4. Watter newe-effekte dink u het dit om	Swaar mensturele bloeding	

Intra Uterinêre Voorbehoedtoestelle te gebruik? (Merk alles van toepassing)	Tussen-menstruele bloedvlekke	
	Menstruele pyn	
	Verlengde menstruele bloeding	
	Voortdurende amenorrhea (verlies van menstruasie)	
	Gewigstoename	
	Ander (spesifiseer)	
C5. Watter newe-effekte dink u kom voor by inplantings? (Merk alles van toepassing)	Swaar menstruele bloeding	
	Tussen-menstruele bloedvlekke	
	Menstruele pyn	
	Verlengde menstruele bloeding	
	Voortdurende amenorrhea (verlies van menstruasie)	
	Gewigstoename	
	Ander (spesifiseer)	
C6. Watter newe-effekte dink u word deur inspuitings veroorsaak? (Merk alles van toepassing)	Swaar menstruele bloeding	
	Tussen-menstruele bloedvlekke	
	Menstruele pyn	
	Verlengde menstruele bloeding	
	Voortdurende amenorrhea (verlies van menstruasie)	
	Gewigstoename	
	Ander (spesifiseer)	
C7. Hoe lank dink u bied 'n Intra Uterinêre Voorbehoedtoestel doeltreffende beskerming teen swangerskap?	3 tot 6 maande	
	6 maande tot 5 jaar	
	5 tot 10 jaar	
C8, Hoe lank bied implanon doeltreffende beskerming teen swangerskap?	3 tot 6 maande	
	6 maande tot 5 jaar	

	5 tot 10 jaar	
C9. Hoe lank bied inspuitings doeltreffende beskerming teen swangerskap?	3 tot 6 maande	
	6 maande tot 5 jaar	
	5 tot 10 jaar	
C10. Waar word die intra uterinêre voorbehoedtoestel geplaas? (IUCD)	In die baarmoeder	
	In die arm	
	In die boud	
	Ander (spesifiseer)	
C11. Waar word die voorbehoed toestel ingeplant?	In die baarmoeder	
	In die arm	
	In die boud	
	Ander(spesifiseer)	
C12. Waar word die inspuitings toegedien?	In die baarmoeder	
	In die arm	
	In die boud	
	Ander (spesifiseer)	

VRAE OOR GESINDHEID

Vir die volgende stellings, merk asseblief volgens u voorkeur as volg; 1= algehele verskil; 2= verskil, 3= weet nie, 4= stem saam en 5= stel volkome saam;

D. VRAAG	ANTWOORD				
D1. Intra uterinêre voorbehoedtoestelle(loop), inplantings en/of inspuitings voorbehoedmiddels kan doeltreffend 'n swangerskap voorkom	1	2	3	4	5
D2. Intra uterinêre voorbehoedtoestelle(loop), inplantings en/of inspuitings voorbehoedmiddels kan permanente onvrugbaarheid veroorsaak	1	2	3	4	5
D3. Sou u die metode kies as u geen kinders in die volgende twee jaar wil hê nie?	1	2	3	4	5
D4. Intra uterinêre voorbehoedtoestelle(loop) of inspuitings voorbehoedmiddels word meestal gebruik deur persone wat promiskue, vrye geslagtelike verkeer het	1	2	3	4	5
D5. Intra uterinêre voorbehoedtoestelle(loop), inplantings of inspuitings behoort deur getroude pare gebruik te word	1	2	3	4	5
D6. Intra uterinêre voorbehoedtoestelle(loop), inplantings of inspuitings behoort deur ongetroude vroue gebruik te word	1	2	3	4	5
D7. Intra uterinêre voorbehoedtoestelle(loop), is die beste metode om swangerskap te voorkom	1	2	3	4	5
D8. Inspuitings is die beste metode om swangerskap te voorkom	1	2	3	4	5
D9. Inplantings is die beste metode om swangerskap te voorkom	1	2	3	4	5
D10. Vroue moet die verantwoordelikheid neem om voorbehoeding te gebruik	1	2	3	4	5
D11. Mans moet die verantwoordelikheid nee mom voorbehoeding te gebruik	1	2	3	4	5
D12. Beide vroue en mans moet die verantwoordelikheid nee mom voorbehoeding te gebruik	1	2	3	4	5

VRAE OOR DIE GEBRUIK OM LANGDURIGE OMKEERBARE VOORBEHOEDING TE GEBRUIK

E. VRAAG	ANTWOORD	
E1. Gebruik u tans enige gesinsbeplanningsmetodes?	JA	
	NEE	
E2. Watter van die volgende metodes gebruik u tans?	Intra uterinêre toestelle(loop)	
	Implantings	
	Inspuitings	
	Geen van bogenoemde	
E3. Gebruik u tans enige voorbehoedmiddels anders as intra uterinêre toestelle (loop), inspuitings of inplantings?	JA	
	NEE	
E4. Indien ja, watter voorbehoedmiddels gebruik u tans?		
E5. Hoeveel lewende kinders het u op daardie stadium gehad toe u die Langdurige omkeerbare voorbehoeding begin gebruik het?	___ Kind (ers)	
	Geen	
E6. Het u Gesinsbeplanningsadviseur ooit vir u van enige ander voorbehoedmetodes vertel wat u kon gebruik het?	JA	
	NEE	
E7. Gedurende watter periodes het u die eerste keer hierdie gesinsbeplannings berading gehad?	Gedurende swangerskap	
	Na die bevalling van ‘n baba	
	Voordat ek ooit swanger was	
E8. Het u hierheen gekom vandag omdat u ‘n spesifieke soort voorbehoedmiddel benodig?	JA	
	NEE	
E9. Indien ja, watter metode verkies u om te gebruik vandag?		
E10. Gebruik u lewensmaat/huweliksmaat enige voorbehoeding?	JA	
	NEE	
E11. Indien ja, watter metode?	Manlike kondome	
	Ander	

VRAE RAKENDE VORIGE (VOORHEEN) GEBRUIKE VAN LANGDURIGE OMKEERBARE VOORBEHOEDING (LARC)

F. VRAE	ANTWOORDE	
F1.Het u al ooit (voorheen) 'n Intra utirinêre toestel (loop), implanting en/of 'n inspuiting gebruik?	JA	
	NEE	
F2. Indien ja by F1, watter metode het u al voorheen gebruik?	Intra uterinêre voorbehoedtoestel (loop)	
	Inplanting	
	Inspuiting	
F3. Indie u voorheen enige van hierdie metodes gebruik het, watter een het u die mees onlangse gebruik?	Intra uterinêre voorbehoedtoestel	
	Inplanting	
	Inspuiting	
F4. Wat was die HOOFREDE vir die verandering van die vorige middel na die mees onlangse LANGDURIGE OMKEERBARE VOORBEHOEDING? (LARC) (Merk asseblief slegs EEN geskikte antwoord)	Weinig/geen seksuele verkeer	
	Menopause	
	Histerektomie gehad	
	Wil soveel as moontlik kinders hê	
	Lewensmaat daarteen gekant	
	Gesondheidsprobleme	
	Vrees vir newe-effekte	
	Ongemaklik om te gebruik	
	Inmenging met normale liggaamsfunksies	
	Weet nie	
	Ander (Spesifiseer)	

APPENDIX B: FACILITY OBSERVATION CHECKLIST – IN ENGLISH

Interviewer guide: To be administered to health facilities where respondents are sought. Questions for the family planning clinic head or in-charge based on the availability and provision of the family planning service, particularly (LARC).

G1. Which FP methods are provided in this health facility? IUD ☐ 1 Injectables ☐ 2 Implant ☐ 3 Pill ☐ 4 Condoms ☐ 5 FAM ☐ 6 G2. Frequency of FP service provision Daily ☐ 1 Weekly ☐ 2 Others specify ☐ 3 G3. What FP methods are available today? ICUD ☐ 1 Injectable ☐ 2 Implant ☐ 3 Pills ☐ 4 Condom 5 G4. LARC stock-out in past 30 days ICUD YES NO Injectable YES NO Implant YES NO G5. Which of the following equipment are available and in a functioning state? 1. Artery forceps 2. Allis tissue forceps 3. Uterine sound 4. Sims Specula	

5. Cusco speculum 6. Retractor 7. Examination table 8. Needle holder 9. Scalpels 10. Working lamp 11. Vulsellum forceps 12. Tenaculum forceps 13. Sterilizers	

G6. Is there a sign post outside your health facility showing availability of FP services? (Observe) YES NO G7. Which family planning IEC materials are available? (Observe or ask) Flip chart □1 Pamphlet □2 Wall chart □3 Brochure □4 None □5 G8. Who are the FP providers? Medical doctor □ 1 Registered nurses □2 Others(specify) □3 G9. Number of health workers providing Family Planning services today: …… G10. Number of Family Planning users on last working day ……	G11. When was the last supervisory visit to review FP Service provision? Year …… Never been supervised ……. Don't know ……. G12. How many reproductive health trainings focused on FP provision have been taken by the FP providers in last 12 months…… G13. Please show me a copy of written Guidelines for delivering Family Planning services. Available □1 Not available □2 Don't know □3 G14. Does your FP clinic have contraceptive reminder cards? (Observe) YES NO G15. Do you have a client screening

	checklists for initiation of new and previous FP users? (Ask to see a copy of screening checklist) YES NO

APPENDIX C: ETHICAL COMMITTEE APPROVAL

UNIVERSITY OF THE FREE STATE
UNIVERSITEIT VAN DIE VRYSTAAT
YUNIVESITHI YA FREISTATA

UFS·UV
HEALTH SCIENCES
GESONDHEIDSWETENSKAPPE

IRB nr 00006240
REC Reference nr 230408-011
IORG0005187
FWA00012784

04 May 2017

DR EM MAKOLA
DEPT OF FAMILY MEDICINE
FACULTY OF HEALTH SCIENCES
UFS

Dear Dr EM Makola

HSREC 188/2016 (UFS-HSD2016/1514)
PROJECT TITLE: KNOWLEDGE, ATTITUDE AND PRACTICE OF WOMEN TOWARDS CONTRACEPTIVE IMPLANTS, IMPLANON, IN ODENDAALSRUS, LEJWELEPUTSWA DISTRICT, FREE STATE PROVINCE

1. You are hereby kindly informed that the Health Sciences Research Ethics Committee (HSREC) approved this protocol after all conditions were met. This decision will be ratified at the next meeting to be held on 30 May 2017.
2. The Committee must be informed of any serious adverse event and/or termination of the study.
3. Any amendment, extension or other modifications to the protocol must be submitted to the HSREC for approval.
4. A progress report should be submitted within one year of approval and annually for long term studies.
5. A final report should be submitted at the completion of the study.
6. Kindly use the **HSREC-S NR** as reference in correspondence to the HSREC Secretariat.
7. The HSREC functions in compliance with, but not limited to, the following documents and guidelines: The SA National Health Act. No. 61 of 2003; Ethics in Health Research: Principles, Structures and Processes (2015); SA GCP(2006); Declaration of Helsinki; The Belmont Report; The US Office of Human Research Protections 45 CFR 461 (for non-exempt research with human participants conducted or supported by the US Department of Health and Human Services- (HHS), 21 CFR 50, 21 CFR 56; CIOMS; ICH-GCP-E6 Sections 1-4; The International Conference on Harmonization and Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH Tripartite), Guidelines of the SA Medicines Control Council as well as Laws and Regulations with regard to the Control of Medicines, Constitution of the HSREC of the Faculty of Health Sciences.

Yours faithfully

.....
DR SM LE GRANGE
CHAIR: HEALTH SCIENCES RESEARCH ETHICS COMMITTEE

Cc Prof WJ Steinberg

Health Sciences Research Ethics Committee
Office of the Dean: Health Sciences
T: +27 (0)51 401 7795/7794 | F: +27 (0)51 444 4359 | E: ethicsfhs@ufs.ac.za
Block D, Dean's Division, Room D104 | P.O. Box/Posbus 339 (Internal Post Box G40) | Bloemfontein 9300 | South Africa
www.ufs.ac.za

APPENDIX D: AUTHORITY

health
Department of Health
FREE STATE PROVINCE

03 April 2017

Dr EM Makola
Dept. of Family Medicine
Faculty of Health Science
UFS

Dear Dr EM Makola

Subject: knowledge, attitude and practice of women towards contraceptive implant, implanon, in Odendaalsrus, Lejweleputswa district, Free State Province.

- Permission is hereby granted for the above – mentioned research on the following conditions:
- Participation in the study must be voluntary.
- A written consent by each participants must be obtained
- Serious adverse events to be reported and/or termination of the study.
- Ascertain that your data collection exercise neither interferes with the day to day running of the facilities nor the performance of duties by the respondents or health care workers.
- Confidentiality of information will be ensured and please do not obtain information regarding the identity of the participants.
- Research results and a complete report should be made available to the Free State Department of Health on completion of the study (a hard copy plus a soft copy).
- Progress report must be presented not later than one year after approval of the project to the Ethics Committee of the University of the Free State and to Free State Department of Health.
- Any amendments, extension or other modifications to the protocol or investigators must be submitted to the Ethics Committee of the University of the Free State and to Free State Department of Health.
- **Conditions stated in your Ethical Approval letter should be adhered to and a final copy of the Ethics Clearance Certificate should be submitted to** sebeelats@fshealth.gov.za **before you commence with the study**
- No financial liability will be placed on the Free State Department of Health
- Please discuss your study with the institution managers/CEOs on commencement for logistical arrangements
- Department of Health to be fully indemnified from any harm that participants and staff experiences in the study
- Researchers will be required to enter in to a formal agreement with the Free State department of health regulating and formalizing the research relationship (document will follow)
- You are encouraged to present your study findings/results at the Free State Provincial health research day
- Future research will only be granted permission if correct procedures are followed see http://nhrd.hst.org.za

Trust you find the above in order.

Kind Regards

Dr D Motau
HEAD: HEALTH
Date: 18/04/17

Head : Health
PO Box 227, Bloemfotein, 9300
4th Floor, Executive Suite, Bophelo House, cnr Maitland and, Harvey Road, Bloemfotein
Tel: (051) 408 1646 Fax: (051) 408 1556 e-mail:khusemj@fshealth.gov.za@fshealth.gov.za/chikobvup@fshealth.gov.za

APPENDIX E: INFORMATION SHEET IN ENGLISH

INFORMATION LEAFLET AND CONSENT

Thank you for participating in the study.

This is a study on Implanon, a contraceptive implant which is available at no cost in public clinics.

We would like to have an idea on how much you know about this contraceptive implant and how you feel about it and what you think about it as well as get an idea of your use of it, whether you would recommend it, or would like to use it in future.

It will take you about 20 minutes to complete this questionnaire and you give an informed consent by completing the form. Your participation in the study hold no risk to you as the participant, and you can withdraw from the study at any time without penalty.

This is a Voluntary action and your participation is highly appreciated.

You will not receive any remuneration but an appreciation sweet will be given to you at the end.

The Confidentiality of the information received will be upheld, and the feedback about the results of the study will be available to you as the participant.

Thank you.

Dr EM Makola, family medicine registrar

APPENDIX E: INFORMATION SHEET IN AFRIKAANS

INLIGTINGSBILJET

Baie dankie dat u deelneem aan hierdie studie.

Hierdie studie handel oor Implanon, geboortebeperkingsinplanting wat gratis beskikbaar is in openbare gesondheidsklinieke.

Ons verneem graag hoeveel u weet van hierdie geboortebeperkingsinplanting en hoe u voel oor dit. Ons wil ook weet wat u dink daarvan en of u weet hoe om dit te gebruik; sou u dit aan ander aanbeveel en of u dit self in die toekoms sou gebruik.

Om die vraelys te voltooi, behoort u ongeveer 20 minute te neem. U gee ook inligte, skriftelike toestemming sodra u hierdie vraelys voltooi het. U deelname aan die studie hou geen risiko in vir uself nie, en u kan enige tyd aan die studie onttrek sonder enige voorbehoud of slegte nagevolge.

Hierdie is 'n vrywillige daad en u deelname word hoog op prys gestel.

U ontvang geen vergoeding vir u deelname, maar uit waardering word 'n lekkergoed aan u gegee by voltooiing hiervan.

Vertroulikheid van Inligting Ontvang word hoog aangestel en volgehou. Terugvoer van die uitslag van die studie word aan u as deelnemer beskikbaar gestel.

Baie dankie.

Dr EM Makola, gesinsgesondheidspraktisyn

APPENDIX E: INFORMATION SHEET IN SESOTHO

PHAMFOLETE E EMERENG LESEDI

O lebohwa ho menahane bakeng sa ho nka karolo thutong ena.

Thuto ena e mabapi le "Implanon" (ho nokela thotse) e sebetsang jwaloka sethibelapelehi se fumanwang mahala ditleleniking tsa setjhaba.

Re lakatsa ho tseba hore ebe ha jwale o tseba ha kae mabapi le sethibelapelehi sena sa "implant" (ho nokela thotse), mme o ikutlwa jwang mabapi le sona, ebile o nahana jwang ka sona, mmoho le hore o tseba ha kae mabapi le tshebediso ya sona, e bile o ka se kgothaletsa ho ba bang kapa o ka rata ho se sebedisa nakong e tlang.

Ho tla o nka nako e kana ka metsotso e 20 ho tlatsa tokomane ena ya lenane la dipotso (questionnaire) le hore o tla re fa tumello bakeng sa hore o tlatse foromo ena. Ho nka seabo thutong ena ha ho na kotsi ya letho ho wena jwalo ka monka-seabo, mme o ka ikgula ho ba karolo ya thuto ena ntle le hore o lefiswe kapa o fumantshwe kotlo.

Sena ke boithaopo, mme ho nka seabo ha hao ho a re thabisa.

O ke ke wa fumantshwa morokotso wa letho empa pongpong e bontshang ho ananela seabo sa hao o tla e fumantshwa qetellong ya thuto ena.

Lesedi leo o faneng ka lona le tla nkuwa e le sephiri. O tla fumantshwa karabelo mabapi le sephetho sa thuto ena jwalo ka ha o le monka-seabo.

Madume

Dr EM Makola, family medicine registrar

APPENDIX F: BUDGET

There was no compensation for the participants and the field workers, only incentives in the form of sweets were given out to the participants. R3000 was the total cost as shown below. This study was Self- funded.

Travel costs	R1400
Paper	R1000
Telephone	R100
Sweets	R500
Total:	**R 3000**