Appraisal of Usage of Fertility Regulation Services in Damaturu Town, Yobe State

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Abstract

Regulation of fertility is one of mechanism used for managing over-explosion of human population in response to socio-economic resources. The study assessed the availability and usage of fertility regulation facilities and services among some of the urban and peri-urban communities of Damaturu town, Yobe state. The study used key Informant and in-depth interview survey method for the data collection. The respondents of the study were drawn using systematic random sampling techniques, while the data were analyzed using descriptive statistic techniques. The findings revealed low (33.7%) patronage of fertility regulation services in the peri-urban communities, with 57.8% in urban communities, which represents 45.8% of the respondents. Of this 45.5% are employing traditional methods. Fear of side effects, ineffectiveness, poor counselling and awareness are some of the factors hindering high use of fertility regulation services. As a result, the study recommends increased public enlightenment campaigns towards uptake of modern method by both men and women.

Keywords: *Fertility, Regulation, Services, Women.*

1.0 Introduction

Every year, more than 210 million women globally become pregnant, and 30 million (15 per cent) develop complications, which leads to the death of over half a million women (Jane Namasasu nd). It is estimated that between 10 to 20 per cent of these pregnancies were unwanted at the time of conception, and up to 100,000 maternal deaths could be avoided if women who did not want children practiced effective fertility regulation (United Nations Funds for Population, 2018). For every woman who dies a maternal death, about 30 more suffer from serious conditions that can affect them for the rest of their lives, it is estimated that preventing unwanted pregnancies would avert a total of 4.6 million disability-adjusted life years daily worldwide (UNFPA, 2001). Thus, effective fertility regulations contribute to better maternal health by simply reducing the proportion of unwanted births. Fertility regulation has a direct effect on the number of maternal deaths, by reducing the number of pregnancies. According to the 2013 Nigeria Demographic Health Survey (NDHS 2013), one in every ten pregnancy were either mistimed or unwanted and the use of the modern method of fertility regulation will significantly reduce the number of maternal and newborn deaths by 67 and 77 per cent respectively. Increased access to contraceptive services saves as a cost-effective strategy for countries to reduce maternal and child mortality (Moreland and Talbird, 2006). The level of fertility regulation remains low in many African countries because unintended pregnancies are common, and unmet need is high. In Nigeria, the results of 2013 Demographic and Health Survey indicate that only 15.1% are using a modern method (NPC/ICF 2014). These numbers have not changed since 2003 as a result of low fertility regulation, in 2013 fertility remained high in Nigeria at 5.5 children per women, on average (NPC/ICF 2009).

Many studies have been carried out in an attempt to achieve a clear and deeper understanding of the issues affecting fertility and the factors that play a critical role in influencing fertility (Mose, Andrew, omwoyo, 2015). Dauda, and Obariri (2016); Lawoyin, (2002) and Saheed (2016) Mairiga (2010) and Saheed (2016) acknowledge that inadequate health care facilities, low prevalence rate and availability of fertility regulation facilities are the reason for women's failure toward fertility regulation practice. Similar research was not conducted in the study area and the literatures consider socio-demographic characteristics affecting fertility regulation and women of reproductive age only. In light of these gaps, the study focus on patronage and availability of fertility regulation to generate direct data through health professionals, community stakeholders, men and women of reproductive age.

Maternal and Infant mortality are high, and are the major public health challenge amongst the families in West Africa Simona (2021). Nigeria has maternal mortality rate (MMR) of 576 death per 100,000 live births and estimates which indicate that maternal deaths are responsible for about a third of all deaths among women of reproductive age (NPC 2014). The situation is worse within the northern part of the country where the MMR is estimated to be over 1000 deaths per 100,000 live births Charles et al, (2017). Nigeria recorded 917 deaths of mothers per 100,000 live births, while infant mortality stood at 58 death of child under one year per 1000 live births in which Damaturu local government is not an exception.

The reason for failure in control of maternal and infant mortality from pregnancy related causes are the motivational factors that instigate

the need to appraised the usage and availability of fertility regulation facilities in the study area to add into the existing knowledge Similar research was not conducted in the study area.

2.0 Methodology

2.1 Study Area

The study was conducted in Damaturu Local Government Area, located between latitude 10º 55′ N and 11º 30′N longitude 11º 40′E and 12º 10′E as shown in Figure 2. Damaturu town has been the district headquarters of the then Borno province. It was later made the headquarters of Damaturu Local Government in 1976, and in 1991 it became the capital of Yobe State in northeastern Nigeria. The town covers a land area of 2,366 sq kilometers (409,976 hectars) and 456-meters above sea level (jimme et al 2020). Damaturu Local Government Area is the state capital of Yobe state, is bordered to the north by Tarmuwa local government Area and to the west by Fune local government Area, to the south by Gujba local government to the east by Kaga local government Area of Borno state, (Ahmed 2014).

The study was conducted in the Eleven (11) political ward of the study area, known as Damaturu central, Njiwaji/Gwange, Dindigari/Powari, Nayinawa, Maisandari/sumsumma (the Urban areas) Marfa-kalam, Gabai/kalallawa, Sasawa/kabaru, Gambir/Moduri, Kukareta/Warsala and Damakasu.

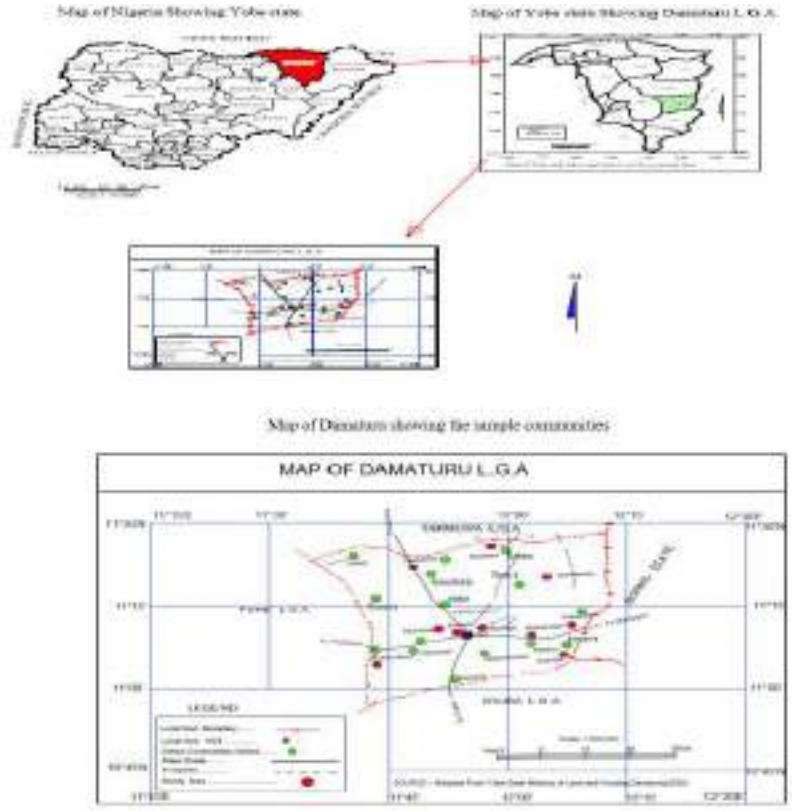

Figure 2.1 Source: Cartographic map adopted from Yobe state Ministry of Land and Survey Damaturu.

2.1 Material

The cross-sectional design were been employed in collecting data at a point in time, among men and women of reproductive age, community stakeholders and health professionals. The data generated for the study

include information on availability of fertility regulation facilities and its effect on fertility regulation adoption on reproduction. The data was collected directly through focus group discussion, in-depth interview, Key Informant Interview and additional information was generated indirectly through a journal, textbooks, seminars paper and the internet.

Yamane formular was used in the determination of the sample size used. Purposive sampling was used to divide Damaturu local government area into eleven (11) political wards, and cluster sampling was used to select houses and also systematic random sampling was also employed to select the population of study such as men and women of reproductive age for the purpose of administering interview and Focus Group Discussion. One (1) point was selected at each cluster for the purpose of conducting a focus group discussion. In order to gather realistic information for the stated objectives of the study, three (2) types of data collection instruments were employed namely; Guidelines for interview and Focus group discussion. Two (2) Research assistant were be employed for both male and female. The interview, Key informant interview and Focus group discussion was been transcribed in language both Hausa, Kanuri. The generated data were analyzed using both Inferential and Descriptive.

3.0 Result and Discusion

3.1 Introduction

The data analyzed below was obtained through a sample survey conducted in both the rural and urban parts of Damaturu local government areas of Yobe State, Nigeria. The survey were conducted with the use of a well-structured interview, Focus group discussion guide and Key informant interview designed to elicit personal data from the respondents on availability and determinant of the utilization of fertility regulation of the Respondents.

3.2 Socio- Demographic Characteristic of Household Heads

3.2.1 Age of the Household Heads

The age range of the household heads are within 15-35 years, as show in table 4.1 and this could be attributed to the child bearing age (15-49) as stated by Olugbenga et al, (2011) "most of the respondents were in the age range of 35 years and above, followed by 20 to 29 years, with a mean age of 29.59 years".

3.2.2 Gender of the Household Heads

Table 3.1 shows that high proportion of the respondent are women, this may be linked to the usage of fertility regulation facilities and fertility related victims. Male gender was involved in the study because they are part and parcel of the decision making in fertility related issues. This is found to be related with the study conducted by Olugbenga et al, (2011) that stated "some of the respondents felt the husband should solely decide on family planning, while some felt it was the wife/partner, and some felt it is a joint responsibility of husband and wife/partner".

3.2.3 Marital status of the Household Heads

The marital status of the household heads shows in Table 4.1 that 73 (18.5%) were unmarried, 279 (70.8%) were married, 12(3.0%) were divorced and 30(7.6%) of the respondents were widowed. However, the use of fertility regulation method is common among the couple because they are still in the child bearing age. This is in agreement with study of Olugbenga et al, (2011) which stated that "most of the respondent were married, Muslims, and had secondary school education".

3.2.4 Level of Education/Knowledge Household Heads

The literacy level of the respondents plays a vital role in all aspect of life including fertility regulation, majority of the respondents are illiterate as indicated in table 3.1 which may influence the use of modern method of fertility regulation and this is in agreement with the study conducted by Zanebe, 2017; Shapiro and Tambashe, 1994; Nwosu, Eke, and Chigbu, (2011) that "stated illiteracy can influence the use of modern method of fertility regulation". "Better educated women employed in the modern sector are most likely be in the forefront of the contraceptive revolution. "Traditional values, ignorance, and illiteracy could be big factors in making women not accept family planning and inadequate health care facilities could also hinder women from patronizing health care centers to get contraceptives or knowledge on contraceptive use".

3.2.5 Religion of the Household Heads

The high proportion of the respondent's religion is Islam, then followed by Christian and other religion as shown in table 3.2 below. It is well known that religious believes may influence the use fertility Regulation method and majority of the respondents had low literatecy level. This is in agreement with study of (Okeowo and Olujide 2014; Olugbenga et al, 2011; and Zenebe 2017) which stated that "the factors militating against their utilization of fertility regulation method are categorized into health, religions, social, political and economic factors". "The most significant socio-demographic determinants of ever use of contraceptives were religion". "Religion has its implication towards family planning, in case of Christianity most of the time followers believe in the command of God (that says multiply in the earth) means no need of controlling birth and against this is considered as disobey to God" respectively.

3.2.6 Monthly Income of the Household Heads

Income mostly affects reproductive behavior, those with low income find it difficult to use a modern method of fertility regulation and also low-income earners had low awareness of reproductive behavior and health. This may be due to the low education, religious misperception and economic barriers that prevented them from acquiring information on reproductive health.

3.2.7 Ethenicity of the Household Heads

The table 4.2 below shows that majority of the ethnic group residing in Damaturu are Kanuri, the tribe of the respondent plays a vital role in the adoption of the fertility regulation method. Most of the tribes are very difficult to convince to adopt a method that is not openly clear religiously, this may be unconnected with low/high religious literacy level. This is found to be related with the work of Aisha Ningi Ibrahim et al, (2015) which stated that "the major ethnic groups in the state include the Kanuri/Manga, Fulani, Ngizim, Bolewa, Bade, Kare-Kare, Hausa, Ngamo, Babur/Maga and several other ethnic groups from different parts of the country".

3.2.8 Occupation of the Household Heads

This shows that the high proportion of the respondent are unemployed and less paid job as shown in the table 3.2 below, this may be one of the factor militating against the use of a modern method of fertility regulation. It have been stated in FGD that in most of the places, the facilities were provided for free but sometimes it requires money and mobility.

Table 3.1: Socio-Economic characteristic of the Household Heads

Religion	**Frequency**	**Percentage**	**Monthly Income**	**Frequency**	**Percentage**
Islam	386	96.5	less than 5 thousand	201	50.25
Christian	13	3.25			
Others	1	0.25	Between 5-10 thousand	115	28.75
Total	**400**	**100%**			
			Between10-20 thousand	90	22.0
			Total	**400**	**100%**
Ethnicity	**Frequency**	**Percentage**	**Occupation**	**Frequency**	**Percentage**
Hausa	63	15.75	House wife	152	38.0
Fulani	111	27.75	Trader	39	9.75
Kanuri	132	33.0	Civil servant	38	9.5
Karekare	32	8.0	Business	40	10.0
Bade	18	4.5	Farmer	44	11.0
Others	44	11.0	None	39	9.75
Total	**400**	**100%**	Other	48	12
			Total	**400**	**100%**

Source: Field work, 2020

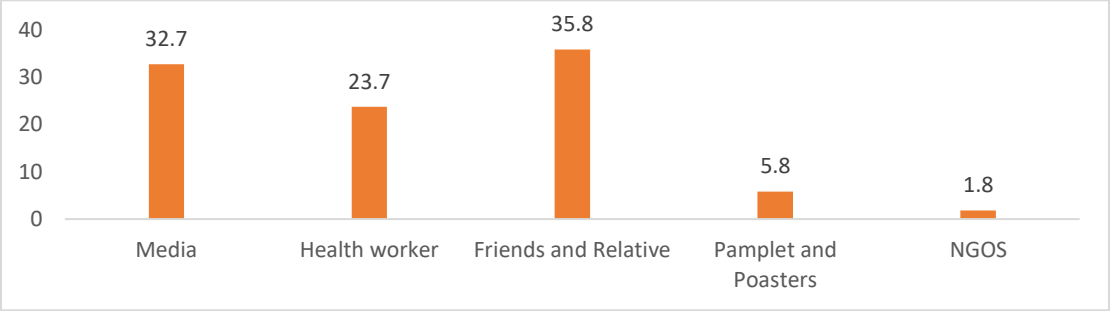

Fig: 3.1 Sources of Information on Fertility Regulation

Sources: Fieldwork data, 2020

Information increases awareness and knowledge among the populace which enables them to make a better decision on the issue that affects their life. Majority of the respondent's information are through friends and relative. This may be link to low literacy level of the respondents, and their information is not through professional which shows that they know nothing about the health consequences of the method they choose and this may be the limiting factor for not regulating fertility. This is found to be agreed with the study (Reshma 2015 and Hetal T 2015) which stated that "poor access to information on contraceptive are among numerous reasons that have been identified by scholars to militate against the use of family planning methods". And "the sources of information on family planning methods are from their husband, health worker, television, doctor, family members, friends, and newspaper/posters". And also disagree with study conducted by Zenebe, (2017) which stated that the "major sources of information in both rural and urban are health extension agents (workers)."

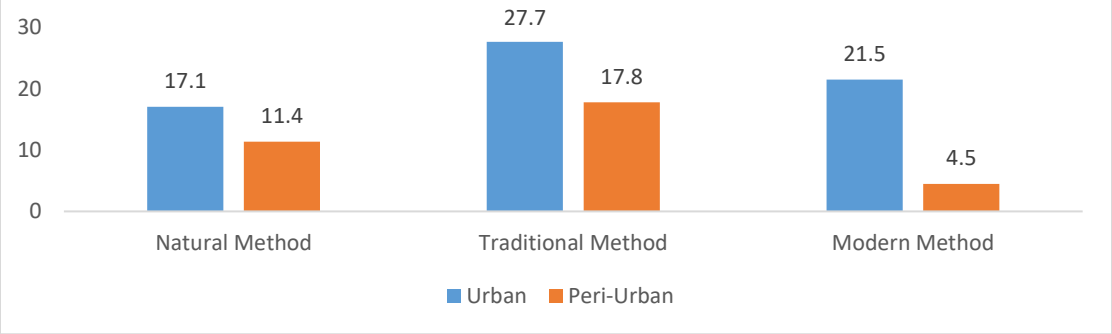

Fig: 3.2 Usage of the method of Fertility Regulation

Sources: Field work data, 2020

The most commonly used methods in peri-urban are the traditional methods which include hand band, waist band and armlet and followed by the modern method such as a pill, Intra-utrinary device, injectable, implant and condoms. The third one is a natural method such as, lactational amenorrhea, rhyme and periodic abstinence and coitus interuptus which is not reliable according to some of the respondents. This may be connected to low literacy level and the effect produce by fertility regulation facilities. This is found to be agreed with the study of Okeowo and Olujide, (2014) which stated that "contraceptive pills, coitus interuptus, condom and safe period calculation can be used as family planning methods and relatively high proportion of these women depended on uncertain fertility regulation methods such as safe period calculation and coitus interuptus". Many of them use methods such as long lasting contraceptive.

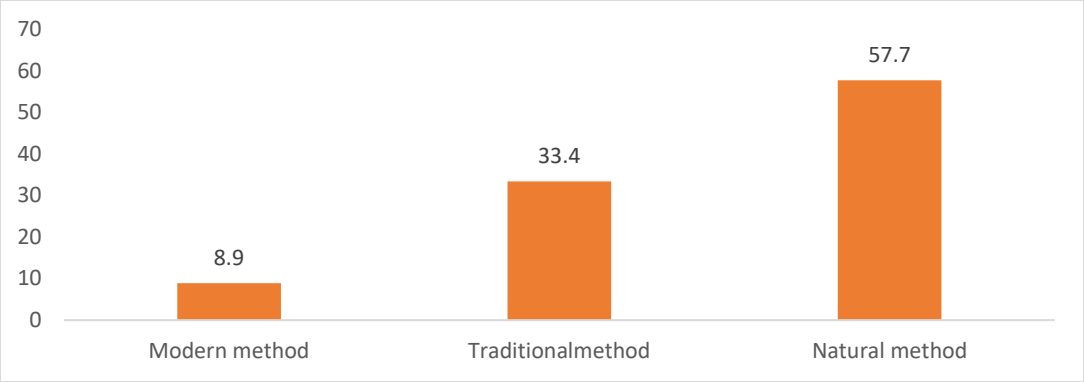

Fig. 3.3: Effectiveness of the Method
Source: Fieldwork data, 2020

Majority of respondents residing in the peri-urban areas view natural and traditional methods are more effective. This may be attributed to lack of awareness on the importance of the modern method of fertility regulation and also how modern method fits with religion of the household heads. This is found to be related to the findings of Cicely et al,(2016) that said "women's very often used calendar methods (rhythm method) to control their fertility and they are using withdrawal or condoms during what they perceived to be the 'fertile' time of their menstrual cycle".

3.2. Fertility Regulation Facilities

Fertility regulation facilities are available in all the political ward clinics of Damaturu local government area. Such clinic are Federal polytechnic Damaturu, Police barrack clinic, Family support specialist hospital, General specialist hospital, Maisandari primary health care center, Gwange phcc, Nayi-nawa phcc, Marfa-kalam phcc, Dikumari phcc, malum mattari phcc, Kalallawa phcc, Gabai phcc, Kasaisa IDP camp, Kuka-reka phcc, Damakasu phcc, and Gambir phcc provided by Save One Million Live program (SOML-P for R) Yobe state. it was also confirm by FGD and KII respondents that the usage of fertility regulation method is very low, this may be unconnected with lack of interest due to the cost of transportation, cost of facilities in some places, ineffectiveness and disappearance of facilities are the factors that led to none or less use of the method. This is found to be in agreement with the study of Saheed et al, (2016) that stated" contraceptives may face some hindering factors; these are lack of awareness, religious beliefs, cultural factors, economic and partner's non-acceptance, fear of side effect, availability, accessibility, and high cost of facilities".

Fig. 3.4: Map of Health Facilities in Damaturu LGA, Yobe State.
Source: Geographic Information System (GIS) Laboratory, Yobe State Ministry of Land and Housing Damaturu 2021**.**

3.3.1 Distance to Health Care Facilities

The distance where fertility regulation services were rendered may determine the usage of a modern method of fertility regulation, because some of the houses are far from health care facilities and some are closer but distance close to health facilities was not found to be an important reason for the non-utilization of a modern method of fertility regulation (Greater than 5 kilometres).

3.3.3 Cost of the Fertility Regulation Facilities

The Costs of fertility regulation facilities vary with the method, the costs of the pill were comparable in both public and private source. The costs of obtaining implants and IUD from a private source were relatively high cost even though same of the facilities like condom, pill and injectable were provided free charge in the study area. Therefore the cost services may not be the only limiting factor for not utilization of fertility regulation facilities. This agreed with the work of Saheed et al, (2016) that stated" contraceptives may face some hindering factors; these are lack of awareness, religious beliefs, cultural factors, economic and partner's non-acceptance, fear of side effect, availability, accessibility, and high cost of facilities".

Table 3.2: Availability, Distance and Cost of Fertility Regulation Facilities

Availability of facilities	Frequency	Percentage%	Distance health facilities	Frequency	Percentage%	Cost of services	Frequency	Percentage %
Agree	370	92.5	Less than 2kilometers	184	46.0	less than 1	154	39.5886
Disagree	30	7.5	From 3-5 kilometers	180	45.0	thousand Between	45	11.568
Total	**400**	**100%**	Greater than 5 kilometers	36	9.0	1-5 thousand		1.5424
			Total	**400**	**100%**	Between 5-10 thousand	6	47.307
						Free	184	
						Total	**389**	**100%**

Source: Field work 2020

Table: 3.3 Side Effect, Perception and Nature of the effect

Side effect	Frequency	Percentage %	Perception	Frequency	Percentage %	Nature of Side Effect	Frequency	Percentage %
Agree	223	55.75	It is against religious teaching	143	35.75	Breast cancer	41	18.385
Disagree	177	44.25	It will limit family size	73	18.25	Menstrual disorder	34	15.246
Total	**400**	**100%**	Western agenda to control	103	25.75	Delay in fertility	38	17.043
			population	81	20.25	resumption		
			Against tradition			Back pain	23	10.313
			Total	**400**	**100%**	Stomach pain	27	12.107
						Body weight loss	26	11.659
						Permanent fertility Stoppage	34	15.246
						Total	**223**	**100%**

Source: Field work data, 2020

3.3.4 Partners Approval/Disapproval

The majority of the respondent's partner be it male or female dislike the modern method of family planning this may be attributed with the lack of awareness on the method, discomfort and fear of side effect as shown in the study of (Dauda, and Obariri, 2016 and Cicely et al, 2016) who stated that the "factors militating against family planning are the husband's attitude toward contraceptive use, religious belief, side effect, ignorance, and cost of the facilities". FGD confirm that the respondents agreed traditional and modern method of fertility regulation have some effect and also natural method is not reliable. This is in line with the study of Yamane (nd) that stated "many of them use methods such as contraceptive pills and condom". Okeowo and Olujide, (2014) that stated "high proportion of these women depended on uncertain fertility regulation methods such as safe period calculation and coitus interuptus"

3.3.6 Nature of the Effect

The modern method of fertility regulation has side effect ranging from breast cancer, menstrual disorder, back pain, loss of body weight, delay in resumption, and permanent fertility stoppage and some of the instrument are not effective like a condom which can easily burst and implant which can disappear in the user's body. This has been shown in FGD with the respondent and also confirm by KII respondent. This is in line with study conducted by Mairiga, et al, (2010) which stated that "most women don't want to regulate fertility because of its effects such as delay in return to fertility, fear of damage caused to the womb or other parts of their body that might prevent them from giving birth again". Also the study of Nwosu, et al, (2011) which stated that "illusory fears about side effects of modern family planning that causes infertility, ill-health, damage to the reproductive system, delayed menstrual return and local customs permit polygamy and the continuation of childbearing till menopause".

3.4.1 Fertility Regulation Instruments used in the whole primary health care center Damaturu

Plate 1,2 and 3 shows Manual Medical Eligibility Criteria Wheel (MECW), the circle bead, Penis used for demonstration, Injectable Noristerate, Microludag, Intra utenary copper device known as Copper T, (I.U.C.D) Condom and Microgenan. According to the KII with primary health care clinic coordinator conferm to that "same of the facilities are available before but it has finished".

3.4.2 Medical Eligibility Criteria Wheel (M.E.C.W) Showing Client with Virginal Bleeding

The manual MECW is like a plate that has upper and lower guide, the lower plate is stagnant while the upper plate is rolling to guide on each method to be use. The upper plate has V-shape, when role on will shows the guide under each level on the lower plate. It is also use by a fertility regulation specialist to determine which method will fit the client, as it was observed in the above appendix 4.7 which shows a client with Virginal bleeding, out of the six (6) arranged numbers i.e 2,2,3,3, 4* and 4*, the last two(2) numbers are marked with alphabet. The first (upper two number) are the precise method to be used by client. As it was reveal by the KII respondents that client with virginal bleeding cannot used this method as Cooper IUD- (Cu-IUD) and Levonorgestrel IUD- (LNG-IUD), progestogen-only injectable (DMPA(IM,SC)/NET-EN,
implants(LNG/ETG) and Levonorgestrel IUD (LNG-IUD) and Copper IUD. The only

available method to be used by client with Virginal bleeding are combined hormonal contraceptives such as pill, patch, ring, injectable (COC, P, CVR, CIC) and progestogen-only pills (POP) only. Medical criteria wheel are used for client with headache, sepsis, hypertension, sexually infectious diseases, liver diseases and cervical cancer.

3.4.3 Wooding Penis used for Demonstration on how to use Condom

Are used for demonstrate on how women will insert their condom, using this woody penis to show them where the condom will stopped so as to avoid spillage. Also they were made know how their male partner will use their own to reduce the risk of condom burst.

3.4.4 Circle Bead used for Counting Mensuration Period (Natural method)

This bead is spherical in sharp used as counter to count a client menstrual circle days, the circle bead is used as natural method for fertility regulation. As shown in Plate 4.14 the bead was been divided into four color; the red, the coffee, the white and black. The red bead mark the beginning of mensuration, the second six coffee color bead in the arrangement is the menstrual days, the black ring is used to mark the days with the ring and the others. The white color bead is use to count the numbers of days after mensuration, in this days when couple don't want to conceive then they absent from sexual activities for the period of white 12 bead, and the remaining numbers of the coffee color bead is the safe period with not possibility of pregnancy.

3.4.5 Injectable Noristerate

Noristerate is the short term injectables use for fertility regulation, the injectable are of three type such as depoprovera, sayanapres and noristerate as shown in Plate 13. The available injectable in the study area is noristerate which are used monthly, two mouth and three mouth and above. The Usage of the injection depend on it action in the body of the client which will determine the mouths to be using it, i.e when the client is using the injectable for same time mouthly, it will turn to two mouthy up to six mouth depend on it action.

3.4.6 Microludag (daily use drug)

Microludag is fertility regulation drug with thirty five (35) pieces of tablet use on a daily bases without break to avoid conception, when a client forgot to take it on that very, the client has a high tendency to conceived on that day. The fertility regulation client are advice to take the drug on daily bases.

3.4.7 Male/Female Condom

Condom is made up of rubber, creamy in color and circler in shape used by either male or female to regulate fertility as shown Plate: 15. Men are using it to insert their penis and create a small space, so that the released sperm can stay there in. When space is not created the condom can easily burst and the aim will be defeated. After intercourse, the used condom should be disposed properly, the same thing with that of women condoms but different is the female condom are inserted into the women virgina as explain by the KII respondent.

3.4.8 Intra-urinary cooper device (I.U.C.D Copper T)

Intra-urinary device is a small plastic device with copper wired coil used for fertility regulation, the device usually inserted into women virgina, it is also known as intra-urinary coil and is one of the effective form of contraceptives.

4.0 Conclusion

The study indicates that the effect of unregulated fertility is well understood and that there is a positive attitude toward fertility

regulation, in general, using either traditional, natural or modern methods. The study points to a need for better fertility regulation in the study area where inadequate supplies of modern methods contribute to a low prevalence of modern method. Also, some of the youngest men and women in our sample probably lack knowledge of both the risk of pregnancy and how modern methods work. Based on the findings, the study recommended: enlightenment campaign toward uptake of modern methods of Fertility regulation by both men and women access and. The issues affecting fertility regulation in the study area include, poor quality of services and Non-usage with medical eligibility criteria wheel by the health professional before prescribing a method to a client. Hence, the need to enlighten the populace on use of medical eligibility criteria wheel, also to look for good and quality facilities. Skillful counsellors should be provided to fertility regulation clients which will help in reducing noncompliance.

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(IJEAVol-2, Issue-2, Mar-Apr- 2017