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Assessing Long-Acting And Permanent Family Planning Methods Uptake Among Women Of Reproductive Age In Kilifi Sub-County, Kilifi County

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Abstract: *Family planning is the intentional prevention of conception through use of the various available devices, sexual practices or surgical procedures and medications followed in order to deliberately prevent or reduce likelihood of pregnancy. Family planning methods comprise modern methods (short acting methods and long-acting and permanent methods (LAPM) and traditional methods. This study focused on the Long acting/Permanent methods (IUCD, Implants and sterilization) which have comprised a very small percentage of the methods used by women over the years. Kilifi district has a bigger population which is rural, with a quarter of the population twenty five percent being WRA. Kilifi district contraceptive prevalence rate (CPR) currently stands at twenty three percent, however, the LAPM share of this is not known. The aim of the study was to assess the determinants of uptake of long acting/permanent methods of family planning among the women of reproductive age in Kilifi sub-county of Kilifi county, Kenya. Cross sectional exploratory study was used which was employing both qualitative and quantitative designs. The study was done in public health facilities only where ten percent of the total facilities in the sub-county were randomly selected: Kilifi district hospital, Bamba sub district hospital and Vipingo health centre were selected. A total of three hundred and fifty respondents drawn from the three facilities were sampled: 150 respondents from KDH; 120 respondents from Sub-district hospital and 80 respondents from the health centre. Two phases of data collection were used where in phase one, data was collected through client-exit interviews using questionnaires administered to WRA visiting family planning clinic at the three health facilities that were selected for the study between October 2011 and June 2012. Phase two involved conducting key informant interviews (KIIs) with the service providers which was done around the same time. Uptake of LAPM among the respondents WRA in Kilifi was found to be forty percent (40%). The major socio-cultural and demographic factors that were found to determine uptake of LAPM of family planning were age, education level, marital status, intention to have more children, partner support, LAPM previous knowledge and use, as well as the previous source of these methods. Major health facility determinant was found to be the mode of transport to facilities. Other barriers to LAPM uptake as indicated by key informants were partner approval, myths and perceptions, commodity stock outs and shortage of trained personnel.*

Keywords*: Uptake of LAPM, knowledge about LAPM, LAPM side-effects, access to LAPM, service providers.*

1. Introduction:

Reproductive health is a fundamental human right and is pivotal to the well-being of women, men and their families. The 1994 International Conference on Population and Development (ICPD), for instance, emphasized the need to ensure the availability of age-appropriate accessible, affordable, and acceptable reproductive health information and services, including family planning, to all individuals who are in need (NCPD, 2008).

Family planning (FP) therefore is a way of helping individuals to have children by choice and not by chance (MOH, 2010). An estimated 215M women worldwide do not use effective contraception (Singh et al, 2009). In Sub-Saharan Africa (SSA) the component of LAPMs (IUCD, Implants, and Surgical contraception) have not been given attention in the national family planning programs (FHI, 2010).

The contraceptive prevalence rate (CPR) in Kenya increased from 39% in 2003 to 46% in 2008, however, the share of LAPM of all the modern contraceptives has remained low at 21% in 2003 (MOH, 2009; KDHS, 2003 & 2010).

Method mix of all family planning methods can play an important role in reducing maternal mortality as it improves women's health by enabling them to space births (Jones, 2007). It further brings a range of other benefits for women, their families and the society at large. For instance, women who have control over their fertility have more educational and employment opportunities and this enhances their social and economic status (Bixby Center for Reproductive Health Research & Policy, 2006; Singh *et al.*, 2003). At the population level, family planning plays an important role in determining the size and growth rate of the population through its influence on fertility. These in turn have implications for available resources. These benefits have therefore informed increased emphasis on improving family planning and maternal and newborn health services in order to accelerate progress towards achievement of the Millennium Development Goals (MDGs) by the year 2015 (Singh *et al.*,2009). There has been a major concern on increasing reliance on short-acting methods (injectables & pills) which have shown higher rates of discontinuation within a year than does LAPMs (KMOH, 2008). Availability of variety of contraceptive methods can help address client preferences, ensure client-specific suitability of methods, as well as help countries reach national health goals and hence persistent challenges to LAPM use need to be overcome (FHI, 2010). LAPMs are provided at health facilities, and are better in adherence however, accessibility in Kilifi is a major concern and the fact that these methods are also

provider dependent because of the surgical procedures involved also make it hard for women to access them. Similarly, 57% of the population in Kilifi live over 5kms to the nearest health facility (DMOH, 2010).

In Kenya, Coast province had low CPR at 34% compared to Central province which had the highest at 67% (KDHS, 2010). Similarly, the national rural CPR was also low at 43% compared to 53% for urban (KDHS, 2010). In Coast Province, Kilifi district has a bigger population which is rural, with a quarter of the population 24.6% being WRA (KNBS, 2010; KASP, 2011)Kilifi district CPR currently at 23%, however, the LAPM share of this is not known (KDASP 2011).

2. Materials And Methods:

This was a cross-sectional exploratory study which was employing both quantitative and qualitative data collection approaches. It considered women of reproductive age (WRA) who were attending the family planning clinic at the selected public health facilities in Kilifi. The District hospital was selected purposively while simple random sampling was used to select the sub-district hospital and a health centre making the total number of the selected facilities to be three. Through this criteria the facilities which were selected were the Kilifi district hospital; Bamba sub-district hospital and Vipingo health centre. Selection of the number of study subjects was proportionate to size, based on the number of registered FP clients at the facility, whereby a proportion of the registered clients in selected facilities were asked to participate in the study. Systematic sampling was used to identify the clients to be interviewed at the FP clinics. Client-exit interviews using semi-structured questionnaires were conducted on the selected FP clients visiting the facilities under study to collect quantitative data in which a total of 350 respondents were interviewed. Additional qualitative data was obtained through 4 Key informant interviews (KII).

The participants were asked about their demographic characteristics (age, marital status, and education level, religion, income status), their fertility intentions including the previous knowledge and use of any LAPM, their childbearing intentions, and whether service providers had any influence on their choice of FP methods as well as their means to access the facilities. Key informants were asked about the other barriers to uptake of LAPMs.

Data checking and cleaning were done simultaneously during data collection. At the end of every field day, data was checked for completeness and consistency. After cleaning, quantitative data was analyzed using the STATA version 11 package for data analysis. Hypothesis testing was done using Chi-square test. Independent predictors of LAPM were determined using logistical regression analysis. Qualitative data was analyzed using content analysis based on key themes generated from the objective. A p value of < 0.05 was considered significant.

3. Results:

A total of the three hundred and fifty FP clients attending the three selected public health facilities in Kilifi were involved in the study. Majority of the respondents were aged between 21-30years, and below half of the women 43.4% had attained primary education and below. Highest percentage of the respondents 61.7% were married/living together, only 33.1% were employed and most of them 43.8% (152) were Protestants. Table 1 shows a summary of the selected socio-demographic characteristics of the respondents.

The study participants were asked to state whether their last pregnancy was wanted, unwanted or wanted to wait. The results indicated that majority of the respondents (48.8%) wanted the pregnancy then. Those who felt they wanted to wait or delay the pregnancy were (34.2%) and only 16.9% felt their pregnancy was unwanted. The results indicated that of the clients who wanted to have more children, over half of them (61.2%) had intentions of having more children, (32.2%) did not want more children and only (6.6%) were not sure of what they wanted.

With regard to previous knowledge of LAPM, the results indicated that over half of the respondents (53.3%) knew of a short term method, while (43.7%) knew a LAPM.

Figure 1 summarizes the pregnancy intentions of the respondents.

In regard to socio demographic and cultural factors (age, education level, marital status and intention to have more children) the results indicated that association between these factors and uptake of LAPM were statistically significant at ($p>0.05$).

Age was found to associated with uptake of LAPMs (Ranjit et al.,2001; FHI,2010). Older women were found to be more likely to use LAPM, for every unit increase in age there was 10.7% ($p<0.001$) increase in likelihood of using LAPM than their younger counterparts.

Characteristic	No. of subjects	%
Age (years) n=350		
<20	54	15
21-30	158	45
31-40	66	19
>40	72	21
Marital status n=347		
Never married	65	18.7
Married/living together	214	61.7
Divorced/Widowed	68	19.6
Highest Educational level n=347		
Never attended school	27	7.7
Nursery/pre-unit	15	4.3
primary	110	31.7
Secondary	125	36.0
University/college	70	20.0
Religion n=350		
Catholic	43	12.3
Protestant	153	44.1
Muslim	104	29.9
No religion	48	13.7
Occupation n=350		
Employed	116	33.1
Self employed	167	47.7
Not employed	67	19.1

Table 1: Summary of socio demographic characteristics of the respondents

These results agree with study by Ranjit et al and Family Health International who found out that age of a woman was likely to influence their choice and method of FP (Ranjit et al., and FHI, 2010).

Education level was also associated with uptake of LAPMs (Blumenthal et al.,2010). Women with post secondary 61% ($p=0.003$) were less likely to use LAPM methods compared to those with no or up to nursery education

Marital status was associated with LAPM uptake (Kamau RK et al., 1996;PSI, 2010). Women who were married and living together with their spouse were 71% (p=0.004) less likely to be using LAPM methods compared to those who were single (never married).

Respondents were then asked the mode or means of transport they had used to the facility. This was to help the researcher estimated the distance that the respondents covered to the facility. More than half of the respondents (66.6%) had used public means (e.g Motorcycle,bus, matatu, bicycle).

Respondents waiting time before being served was also considered to be a factor that could affect LAPM uptake hence respondents were asked about the waiting time the health facility. Majority of them (55%) had waited for the minimum time of 20minutes.

Characteristic	**frequency**	**Proportion**
Mode of transport to the facility		
Private	48	13.7
Public	233	66.6
On-foot	69	19.7
Waiting time before being served at the facility		
<20min	193	55.1
20-39min	51	14.6
40-59min	90	25.7
Don't know	16	4.6

Table 2: Presentation of the health facility level factors (n=350)

Independent variables	Not Using a Long Acting Method no (%)	Using a Long Acting Method no (%)	X2 (df) P value
Age category n=350			
• <20	37(17.9)	17(11.9)	X2=132.3(2)
• 21-30	121(58.5)	37(25.9)	P=0.001*
• >30	49(23.7)	89(62.2)	
Education level n=347			
• Primaryand below	85(41)	67(47.8)	X2 =12.1 (2)
• Secondary	88(42.5)	37(26.4)	P= 0.007*
• Tertiary	34(16.4)	36(25.7)	
Marital status n=347			
• Never Married	47(22.7)	18(12.9)	X2=8.55 (2)
• Married	126(60.9)	88(62.9)	P=0.036*
• Divorced /Widowed	34(16.4)	34(24.3)	

Table 3: Relationship between socio-demographic factors and Uptake of LAPMs

4. Discussion:

The study found out that the proportion of women who were using at least a LAPM and/or had previously used was below half of the sample population n=142 (40.6%), while those on short term methods were found to be n=204 (58.0%).These findings are consistent with results of the Kenya demographic health survey done between 2008/2009. The study found that uptake of LAPMs varied widely by personal back ground characteristics as well as the method, these results were consistent with results of a study by (Fu *et al*., 1999).

The respondents age was statistically significant $p<0.001$. The study found that women over the age of 40years (50.3%) were likely to choose a long term method of family planning than their younger counterparts, probably because they have also attained their desired number of children, these results were consistent with previous research by (Ranjit *et al*.,2001).Notably also, women in age bracket 21-30 years and who made the biggest percentage of the women in study were less likely to utilize LAPMs. This also concurred with a study by Family health international whose results suggested the same that this age group was less likely to use a long term method of family planning (FHI, 2010).

In regard to educational level, the study established that most of the women had some formal education with 31.4% having attained primary education and a majority, (35.7%) of them having attained some education at secondary/A level. This therefore implies that most of the women had low literacy levels since below half of the population had primary education and below. The comparison showed a significant association between the highest education level attained and uptake of long acting methods of family planning *p value 0.007.* This is in line with most studies conducted on long acting/permanent family planning methods which have shown that women with low education levels are more likely to utilize LAPMs than the elite, including a study by (Blumenthal *et al*., 2010).

In regard to marital status of the respondents, about 61.7% of them were married. Findings showed that, the married were less likely to choose an LAPM as compare to the rest of the categories, probably because they have partner influence in their choice and use of FP, these findings contradicts study by (Kigondu *et al*., 1996; FHI, 2010) which found that the married were more likely to use LAPMs due to having a consistent partner. The study showed that uptake of LAPMs was associated positively with marital status *p value 0.036.*

The respondents' religion and the decision making on family planning was found to have no significant association with uptake of LAMs of family planning. This contradicted a study carried out by population service international that suggested that women with no support from their husbands/partners had low level of uptake of these methods than their counterparts (FHI, 2010; Kamau *et al*.,1996). Similarly, a study by FHI seemed to suggest that religion contributes a lot in choice and use of FP methods (FHI, 2010).

The respondents' intention to have more children was found to be significant with the uptake of long acting methods of family planning, *p value 0.035.* Those who had an intention to have more children had a more likelihood of choosing a long term method of family planning. These findings however contrast other research findings which show an no association (FHI, 2010). However, there was no association between the women who got pregnant because they wanted it and those who conceived unwanted pregnancies and the uptake of LAPMs (Secura *et al*.,2010). The study concluded that intention to have more children, as well as partner support influenced LAPM uptake.

Prices of various family planning methods have been considered as a factor that could affect uptake in many studies as also in this study. Recently, studies done in California and St. Louis showed that the rates of LAPM usage dramatically go up when the costs of the methods are either covered or removed (Secura et al., 2010). However, this study showed no significant association between the prices of long acting methods of family planning and their uptake by the respondents, [Χ2=2.95.; df=1;p =0.086]. This implies that, the prices of the long acting methods have no influence on choice and uptake of LAPMs. This finding contradicts a study done which showed that, once financial barriers were removed and LAPM methods were introduced to all potential participants in that study, as a first-line contraceptive option, two-thirds chose LAPM (Secura *et al*., 2010).

LAPMs must be administered in a health facility, therefore, means of transport to the facilities where family planning services are provided is key factor in determining the distance and hence inform their affordability and accessibility of these services. Like many other studies, this study considered private, public means and on foot. It showed that there was a significant association between the means of transport to the facilities and uptake of LAMs of family planning, [Χ2=13.77; df=2; p=0.001].This implies that, affordability of transport means has influence on choice and uptake of LAMs as also given in a study by FHI which showed that transport means to a health facility was a factor (FHI, 2010). Similarly,

the study showed that only 19% of the respondents accessed facilities by foot, however, a Key Informant Interview indicated that the distances covered to the facilities was over 5km, these results concur with a report by Kilifi MOH which found out that 57% of the population in Kilifi live over 5kms to the nearest health facility (DMOH, 2010).

Cultural norms have also placed the burden of family planning entirely on women although evidence indicates higher levels of family planning usage among women who have the approval and support of their husbands/partners these results concur with a study done by Population service International (PSI, 2010).

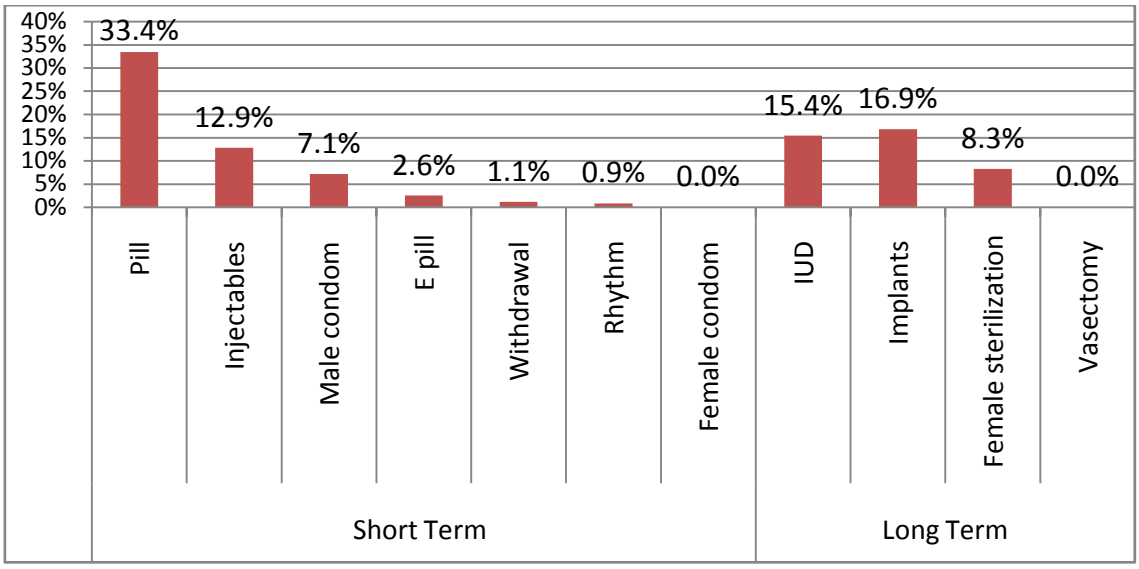

Figure 1: Respondents FP uptake by method

5. Conclusions And Recommendations:

LAPM uptake was found to be low among younger women, women with postsecondary education level, and the married or those living together, these results concur with results of a study by Family Health International (FHI, 2010) whose findings indicated that LAPM uptake varied across age groups, education level including marital status. This study therefore concludes that the main socio-cultural and demographic determinants of uptake of LAPM were age, education level, marital status; intention to have more children, and partner support. LAPM previous knowledge and use, as well as the previous source of these methods influenced uptake. Mode of transport to facilities was also found to influence LAPM uptake. There is need for the government (MOH) to sensitize and offer more information educational

and communication (IEC) materials on benefits of LAPMs among younger and more educated women to promote acceptance and use of these methods. Similarly, MOH should educate male/partners on benefits of LAPM to promote acceptance and increase partner approval. There's need also to promote public- private partnerships to provide more funding for FP activities which will improve knowledge of LAPM among communities. Capacity building for staff working in MCH/FP clinics needs to be done for them to be able to provide LAPM as this will increase coverage for uptake of these methods. There is need to have collective participation of both husband/partner and wife in LAPM issues as this would hugely increase the contraceptive prevalence rate and reduce unplanned, untimely or unwanted pregnancies.MOH through the hospitals should deploy more trained staff to ease the burden of LAPM provision on the available staff.

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