

**DETERMINANTS OF MODERN CONTRACEPTIVE  
UPTAKE FOLLOWING IMMEDIATE POST ABORTION  
COUNSELLING AMONG 15-24 YEAR OLD CLIENTS,  
FHOK 2014**

**SUBMITTED BY**

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IN OBSTETRICS AND GYNAECOLOGY, UNIVERSITY OF NAIROBI.**

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## **ABSTRACT**

### **Background**

Globally, an estimated 43.8 million induced abortions take place each year of which approximately 5.6 million occur in Africa. The majority of these abortions in Africa are 'unsafe' and almost 60% are procured by youth. This is due to the bulk of unwanted pregnancies in this younger age group. Modern family planning methods use has greatly reduced 'unwanted' and 'unplanned' pregnancy. In spite of this, contraceptive use is lowest among adolescents. The main objective of this study was to determine the factors associated with modern contraceptive uptake among 15-24 year old clients following immediate post-abortion counselling with the aim of identifying gaps in youth friendly reproductive health service delivery.

### **Methodology**

This was a cross-sectional study: clients aged 15-24 years attending Family Health Options Kenya (FHOK) clinics for post-abortion services were recruited.

### **Results**

One hundred and seventy four participants were recruited and their mean age was 23 years. More than half, 106(60.9%) adopted a modern contraceptive method. The majority (48%) accepted condoms, 25% adopted pills and 24% received injectable contraceptives while the remainder preferred intrauterine devices and implants (2% and 1% respectively). Seventy eight women (45%) feared that contraceptives would cause infertility, however, 157 (90.2%) were more likely to believe health information from medical practitioners. Immediate post-abortion counselling was associated with increased uptake of family planning method (OR, 95% CI: 2.226, 1.171-4.231). Higher age group (OR, 95% CI: 2.10, 0.932-4.730) and previous delivery (OR, 95%CI: 2.79, 1.295-6.024) were also associated with greater odds of modern contraceptive uptake.

### **Conclusion and Recommendations**

Post-abortion contraceptive counselling is important to increase contraceptive use. The teenagers remain unreached by most contraceptive services, thus require targeted strategies.

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## **LIST OF ABBREVIATIONS**

FHOK.....	Family Health Options Kenya
HIV.....	Human Immune-Deficiency Virus
IUD.....	Intra-Uterine Device
KNBS.....	Kenya National Bureau of Statistics
KDHS.....	Kenya Demographic Health Survey
NCAPD.....	National Coordinating Agency for Population and Development
NCLR.....	National Council for Law Review
PAC.....	Post Abortion Care
WHO.....	World Health Organization

## **CHAPTER 1: BACKGROUND AND LITERATURE REVIEW**

### **1.1 Background**

Annually, approximately 210 million women become pregnant worldwide, and only 130 million go on to deliver live born infants <sup>1</sup>. Many of these pregnancies are wanted and planned, however millions are not. In the developing world, 38% of pregnancies are unplanned and some 25% of births are thought to be ‘unwanted’ or mistimed <sup>2</sup>. This is not different from a national health survey report on Kenya in 2008–2009, where more than 4 in 10 births were unplanned <sup>3</sup>.

Unintended pregnancies result from non-use or ineffective contraceptive use, method failure and lack of pregnancy planning. Globally approximately 43.8 million induced abortions take place each year, of which an estimated 5.6 million occur in Africa, 27 million take place within the legal system and approximately 20 million occur outside the formal health system often performed by unskilled providers or under unhygienic conditions or both <sup>4-5</sup>. It is estimated that of these 20 million unsafe abortions, 2.5 million were attributed to adolescents aged 15-19 years and that almost 60% of unsafe abortions on the African continent were among young women <sup>6-7</sup>. The World Health Organization estimates that 13,000 maternal deaths occurred in 2008 in Eastern Africa, as a consequence of unsafe abortions which constituted 18% of maternal deaths <sup>8</sup>.

In Kenya, abortion is common and is almost always illegal and unsafe according to the World Health Organization’s definition; “carried out either by persons lacking the necessary skills or in an environment that does not conform to minimal medical standards, or both” <sup>9</sup>. Data on national estimates of abortion are scarce and the only national estimate of abortion in Kenya is based on a study of women who were treated in public hospitals for abortion related complications over a three-month period in 2002 <sup>10</sup>. According to the study conducted by

Ipas (International Pregnancy Advisory Services), more than 300,000 abortions occur in Kenya annually or 46 per 1,000 women of reproductive age. This reflects a high demand for abortion-related services and also highlights a need for increasing access to modern family planning.

## **1.2 Literature Review**

### **1.2.1 Adolescent Pregnancy**

Preventing adolescent pregnancy is an essential component of a comprehensive approach to improve adolescents' sexual and reproductive health. Developing evidence-based strategies to prevent 'too-early' pregnancy requires policymakers and program designers to have access to data on adolescent reproductive health behavior and utilization of family planning information and services. However, less than one third of currently married adolescent women in low and middle income countries who want to avoid an unplanned pregnancy are using a modern method of contraception<sup>4</sup>. Much less is known about unmarried adolescents. Unsafe sexual activity among unmarried adolescents is increasing, but less than half of those who want to avoid pregnancy are using a modern method of contraception<sup>11-12</sup>. It is therefore, important to identify some of the barriers to contraceptive uptake among the youth who are most at risk of unwanted pregnancy and subsequent unsafe abortion.

### **1.2.2 Determinants of Modern Contraceptive Use**

A review of the literature in Africa and Asia reveals that socio-demographic factors that determine modern contraceptive use are; age of the woman, residential area, marital status<sup>13</sup>,

level of education, number of living or deceased children, gender of living children, prior discussion of family planning, husband's approval <sup>14-15</sup>, socioeconomic status, urbanization and religious affiliation <sup>16</sup>.

### **Woman's Age**

The age of the woman has been shown to be directly correlated to the uptake of modern contraceptive method. One study in Nigeria on women seeking induced abortion observed that 66% of the population was young women aged 14 to 24 years <sup>13</sup>. A similar study in Ethiopia reported a higher proportion of those adopting modern contraceptive methods to be young women. It was reported that the mean age of women requesting contraceptive services was 25 years, and 79% of women were ages 20 to 29 years. Fewer than 5% of the women were under 18 years or over 36 years <sup>16</sup>. In a review done in Western Kenya by Rogo et al <sup>17</sup>, women in the 15-19 age group accounted for 23 per cent of the total clientele while the 20-24 year age group constituted 42%. This early adoption of modern contraceptive methods has been observed in the developed world too. Attitudes and behaviors established during adolescence guide adult choices, therefore, contraceptive habits should be shaped at an early age <sup>7</sup>. More research is still needed to understand how teenagers rationalize contraceptive decisions. This is especially true with regard to those who had an abortion and may have already experienced a contraceptive failure.

### **Marital Status of the Woman**

Literature suggests that in general, sexually active unmarried adolescents are not seeking to become pregnant and married adolescents often do not wish to become pregnant, or if they already had a child, wish to delay a second pregnancy <sup>18</sup>. In nine national surveys conducted in South and Southeast Asian countries between 1996 and 1999, contraceptive prevalence among married female adolescents ranged from 6% in Nepal and Pakistan to 43–44% in

Thailand and Indonesia <sup>19</sup>. Another study of 18 Demographic and Health Surveys conducted in Africa between 1993 and 2001 found that two out of five unmarried females aged 15–24 were sexually active and the median proportion reporting any contraceptive use by 2001 was 37% <sup>18</sup>. Overall, surveys show that current use of contraceptives is higher among sexually active, unmarried adolescents than among married youth. For example Blanc et al <sup>20</sup> reports proportion of married youth to unmarried youth using modern contraceptives to be 38% versus 60% in Kazakhstan, 4% versus 45% in Nigeria and 8% versus 54% in Benin. In Kenya the proportion of married to unmarried youth using modern contraceptives was reported to be 16.4% versus 49.4% <sup>20</sup>. Presumably, this pattern reflects unmarried youth's stronger desire to avoid pregnancy. Moreover, contraceptive practice among adolescent women appears to involve much experimentation and inconsistent use with higher levels of method failure and method discontinuation reported in this age group compared to older women. This often results in unwanted pregnancy.

### **Education Level of the Woman**

The reproductive choices made by young women have an enormous impact on their schooling and employment prospects, as well as their overall transition to adulthood. Increased years of schooling has been linked to increased age at marriage and associated with contraceptive use <sup>20</sup>. This relationship may be explained by the fact that a highly educated woman is more likely to be aware of the benefits of family planning. Nketiah-Amponsah et al <sup>21</sup> in a study done in Ghana showed that women with at least some secondary education were more than twice as likely to use contraception compared to women with no education (30% and 14% respectively). Regardless of the general agreement that level of education positively influences modern contraceptive use, some studies have shown that this relationship is by no means universal. For instance, a study in Jordan showed that the rate of modern contraceptive use among women with primary education is not significantly different

from that of their counterparts with secondary education <sup>22</sup>. Similarly, a recent study in Mali did not show any relationship between level of education and modern contraceptive use <sup>23</sup>.

The level of education of the spouse or partner as a determinant of modern contraceptive use among women has also yielded mixed results. According to Ezer <sup>24</sup>, the level of education of a spouse is also a strong determinant of modern contraceptive use among women. He demonstrated that uneducated women who were married to educated men are more likely to approve of family planning than their counterparts whose partners were not highly educated. In contrast, a research by Ainsworth et al. <sup>25</sup>, in fourteen sub-Saharan countries, did not find any significant relationship between level of education of a spouse and a woman's usage of modern contraceptives.

### **Number of Living Children**

The number of living or deceased children is directly correlated with contraceptive use especially among African women. It has been suggested that women who have many children are more likely to use modern contraceptives than those with fewer children <sup>26</sup>. A study in Ghana <sup>21</sup> showed that the proportion of women who used modern contraceptives increased with the number of living children. It was observed that 17% of women without children used contraceptive methods, compared with 26% of women with five or more children, while women who had three or four children constituted 27%. Varea et al <sup>27</sup> in a study in Morocco also reported that women who had never used contraception had smaller family sizes than those who did and that the number of live children (or live births) was the variable with maximum predictive power on contraceptive use. Child mortality was the main inhibiting factor. Similar results were observed in a recent study in Kenya where it was reported that only 18% of women with no children used modern contraceptives, compared to 51.8% and 42.9% who had between 3-4 and more than 4 children respectively <sup>21</sup>.

## **Religious Affiliation**

The influence of religion on sexual behavior has long been recognized by social scientists. Religion may influence the conception, orientation and attitudes of individuals based on the kind of teachings, principles and doctrines that it practices. Empirical studies exploring the relationship between individuals' religious beliefs and their sexual behaviors consistently reveal an association in the form of later onset of sexual intercourse among religious adolescents<sup>28-29</sup>. A woman's religion may also determine her willingness to use modern contraceptives. Catholics, for instance, approve only the use of natural family planning methods like abstinence. Meir<sup>28</sup> in a study to determine the effect of religiosity and religious affiliation among youths in France reported that whereas 67% of the women interviewed who used modern contraceptives did not practice any form of religion, of the practicing women; Catholics constituted 29.9%, Protestants 0.9% and Muslims 1.5%. While most studies have found a strong association between religion and contraceptive use, other studies did not detect such strong correlations<sup>18, 22</sup>.

## **Work Status of the Woman**

Work status is also a determinant of modern contraceptive use among women. It has been shown that women who work outside their homes are more likely to use modern contraceptives than those who work in their own homes. This is explained by the fact that it is quite difficult for women employed in the formal sector outside home to cater for their children because of time constraints. According to a field survey conducted in Ghana in 2011, among women interviewed who used modern contraceptives, 35.2% worked in the formal sector, 12.5% worked outside home in the informal sector and 9.0% were home based. Similar observations were reported by Nketiah-Amponsah et al<sup>21</sup>.

### **1.2.3 Barriers to Contraceptive Uptake**

There are many barriers to the use of family planning services by young people. Previously identified limits to contraceptive use among adolescents in developing countries include lack of knowledge on contraceptives and sex education, lack of access to family planning services; misperceptions on risk and side effects of contraceptives, partner control; and negative social norms around premarital sexual activity and pregnancy<sup>30</sup>.

#### **Lack of Knowledge on Contraceptives**

Adolescents' success in avoiding pregnancy often depends on having access to accurate contraceptive information, methods and services. A review of literature reveals that the majority of young women receive little sex or contraceptive education from parents, health services or elsewhere and any education often received only reinforced common misperceptions of common contraceptives<sup>31</sup>. A study on contraceptive knowledge among university students in Ghana revealed that though general contraceptive knowledge was high, respondent's knowledge about contraceptive types and their usage was low indicating a lack of awareness about the various of family planning methods<sup>32</sup>. Moreover, studies done in Mali and Tanzania among young women showed that young women had inaccurate perceptions of pregnancy risk, including changes over the monthly cycle and many thought that they could not get pregnant at first sex, if they had sex standing up or infrequently<sup>31,33</sup>. This insufficient knowledge was likely to contribute to incorrect or inconsistent use of modern contraceptives or no use at all.

#### **Lack of Access to Services**

Utilization of family planning methods has been shown to be determined by the physical distance to the health facilities providing such services. Family planning services in Kenya are offered by the Ministry of Health, non-governmental organizations (NGOs), and the



private sector. Studies indicate that health facilities in Kenya that are designated to offer family planning services are not equitably distributed throughout the country<sup>34</sup>. Ettarh & Kyobutungi<sup>35</sup> in a review of Kenyan data, reported that there was more prevalent use of modern contraceptives among women who resided 5 km or less from the nearest health facility compared to women living farther than 5 km from a health facility. In this study it was reported that women resident 5 km or less to the nearest health facility were 26% more likely to use modern contraceptives than those resident at distances more than 5 km. Previous studies have shown that the choice of treatment provider is influenced by distance, with the number using health facilities reducing as the distance to be travelled increases<sup>36</sup>. In one study in Mali, young women suggested that limited access to modern contraceptive methods due to physical distance was not a problem but family planning services were considered inaccessible mainly because young women perceived the health facilities to cater principally for married women and they had significant fears of receiving a negative reception from clinic staff<sup>31</sup>.

### **Misperceptions on Risk of Contraceptive Use**

Multiple studies have highlighted the importance of and need to address misinformation and side effects as a reason for contraceptive non-use<sup>18, 30</sup>. In the last decade, few family planning programs have addressed concerns about contraceptive side effects despite evidence from a variety of settings showing that these concerns are real barriers to many women's uptake and/or continuation of contraception<sup>30</sup>. These studies showed that in general, women who had never used contraception were fearful of methods based on hearsay or sometimes first-hand accounts of friends, relatives or acquaintances. Some of the misperceptions identified in the review of literature include; modern contraceptives cause infertility<sup>30</sup>, blood test that is required before use, and menstrual disruption<sup>31, 37</sup>.

### **Influence of Partner Relationship**

The association between the influence of the male partner on the uptake and use of modern contraceptive by the female counterpart has been shown in studies. Partners have been reported to manipulate, force, threaten, and use violence to get young women not to use contraception as reported in some studies<sup>30, 37</sup>. This was particularly the case with condoms, which some of the young women's partners did not want to use because they reduced sexual pleasure. In South Africa, partners' control over contraceptive use appeared strong when they provided gifts or money in exchange for sex<sup>38</sup>. However, two African studies<sup>38-39</sup> suggested that some young women wanted to become pregnant as a bargaining tool to solidify relationships.

### **Reputation and Social Status**

In a systematic review of barriers to modern contraceptive use among women in developing countries Lisa et al<sup>40</sup> reported that all studies reviewed identified young women's reputations and social status as a limit to contraceptive use. The synthesis of these qualitative data showed that there was considerable community disapproval of premarital sex and pregnancy. For many, accessing contraceptives, particularly by going to a clinic, constituted a public admission of having had sex, and was linked to being promiscuous or a prostitute<sup>37, 39</sup>. This makes it difficult for the adolescents to discuss any sexual problems they might have with adults for support. Anecdotal evidence shows that some health workers even turn away young clients who come to their health facilities to seek for family planning services.

### **Family Planning Provider Factors**

Numerous studies have revealed that adolescents are neither well-received nor comfortable in mainstream family planning clinics which are mostly government maternal, child health and family planning (MCH/FP) facilities. Studies in several African countries revealed that

providers impose age restrictions on providing family planning methods, including condoms, even when such restrictions are neither medically justifiable nor officially sanctioned. In a study in Tanzania, more than one-third of providers placed restrictions on condom provision based on age<sup>39</sup>. In separate studies in Ghana and Nigeria using mystery clients, young clients were neither treated with the same level of respect as older clients, nor were they given detailed information as their elder counterparts. Authors speculate that differences in treatment by providers were due to providers' negative attitudes regarding young unmarried women who are sexually active<sup>32, 41</sup>. In addition to provider negativity, the young people interviewed said that, cost and fear that services are not confidential, as well as fear of meeting their parents or other adults they know at the facilities represent a barrier to contraceptive use. A number of these studies speculate that adolescents' reproductive health needs would be better served in service environments specifically for them, such as youth-only clinics or youth centers.

## **CHAPTER 2: STUDY RATIONALE, OBJECTIVES AND CONCEPT**

### **2.1 Problem Statement and Rationale**

The risk of death from unsafe abortion is highest in Africa, with an estimated 590 deaths per 100,000 unsafe abortion procedures compared to 14 deaths per 100,000 procedures in the developed world<sup>42-44</sup>. It is estimated that about 46% of deaths due to unsafe abortion occur in women less than 24 years old. Data on the extent of induced abortion in sub-Saharan Africa is inconsistent and there is substantial under-reporting. According to hospital-based studies from Ethiopia, Kenya and Tanzania women seeking care for abortion complications tend to be single women with no children, less than 20 years old, and in school or unemployed<sup>39, 42-43</sup>. The rate of admission to hospital due to complications of unsafe abortion is estimated to be 10 per 1000 women aged 15- 44 years in Eastern Africa<sup>12</sup>. In Kenya, a woman has a one in 38 chance of dying from pregnancy related causes over her lifetime, and about 530 women die per every 100,000 live births<sup>44</sup>. Although no national data exist on the contribution of unsafe abortion to maternal mortality in Kenya, evidence from small scale studies suggest that it is not trivial. A pilot study conducted in Nakuru Provincial General Hospital found that complications from unsafe abortion accounted for 25% of all maternal deaths recorded there in 2002<sup>45</sup>. Similar results were observed in a study on maternal mortality at a Teaching hospital in Malawi where post-abortion complications accounted for 45% of the main causes of death for adolescents<sup>46</sup>.

Despite significant worldwide increases in contraceptive practice during the latter half of the 20th century, use of modern contraception remains low throughout sub-Saharan Africa. In Kenya, the use of modern methods of contraception to prevent unwanted pregnancy has been advocated for many years. However, recent reports show that the contraceptive prevalence rate for modern methods in Kenya is at 28 %<sup>47</sup> which is considered low as it falls short of the

target for 2010 of 62% for contraceptive prevalence set by the Kenya National Population Policy for Sustainable Development <sup>48</sup>. High quality family planning counselling within post abortion care (PAC) has been demonstrated to be effective in improving post-abortion contraceptive adoption <sup>33</sup>.

The purpose of this study is to examine factors associated with uptake and choice of modern contraceptive after an abortion among patients attending Family Health Options Kenya clinics.

## **2.2 Research Question**

What are the determinants of modern contraceptive uptake among 15-24 year old clients, after post-abortion counselling?

## **2.3 Objectives**

### **2.3.1 General Objective**

To determine the factors associated with modern contraceptive uptake among 15-24 year old female clients following post-abortion contraceptive counselling at FHOK.

### **2.3.2 Specific Objectives**

The specific objectives of this study are to determine the following in the target population;

1. The patient factors associated with modern contraceptive uptake
2. The provider factors associated with modern contraceptive uptake
3. The facility factors associated with modern contraceptive uptake

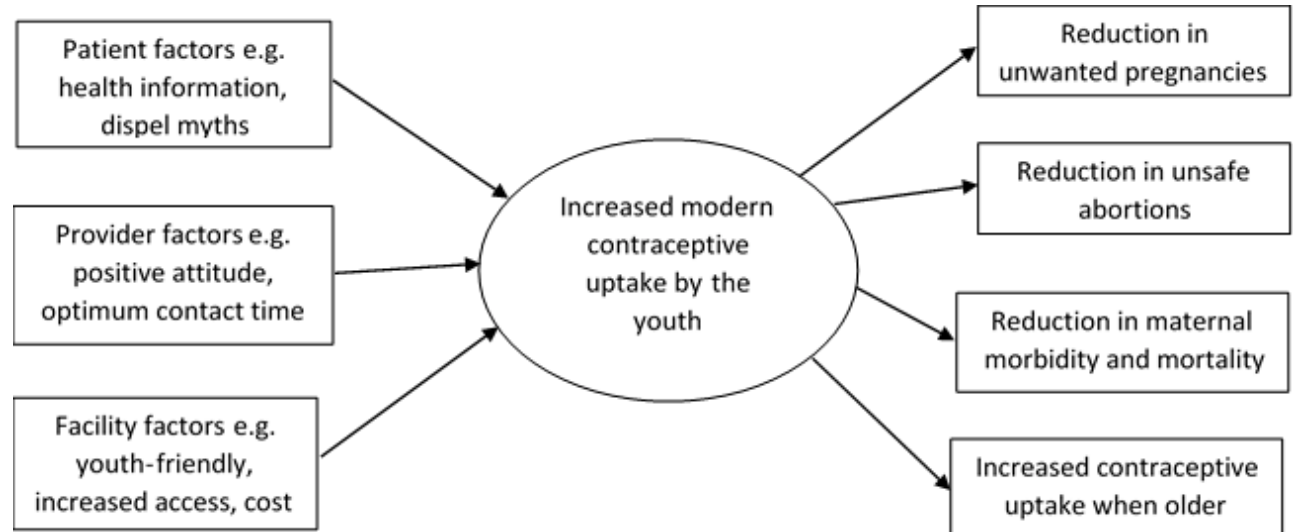
## 2.4 Conceptual Framework

Throughout the world, adolescent girls account for 14 million births annually <sup>11</sup>. The birth rates among females between 15 to 19 years in Africa is estimated at 143 per 1000, which is more than two times above the world average of 65 per 1000 <sup>44</sup>. Majority have unwanted pregnancies with many resorting to abortion. Due to the limited availability of youth friendly reproductive health services and high cost of abortion care when these young people decide to abort a pregnancy, they usually seek unsafe methods. These unsafe abortions are a major contributor to the high rates of morbidity and mortality among adolescent girls and young females.

Legal provisions as well as the availability and quality of safe abortion services affect the incidence of unsafe abortion <sup>1</sup>. The prevalence of unsafe abortions remains the highest in the 82 countries with the most restrictive legislations; up to 23 unsafe abortions per 1000 women aged 15–49 years <sup>5</sup>. In 2010, Kenya adopted a new constitution that provides stronger protection for the lives and health of women. Whereas the prior law only allowed abortion to protect the pregnant woman's life, the new constitution explicitly permits abortion when “in the opinion of a trained health professional, there is need for emergency treatment, or the life or health of the [pregnant woman] is in danger, or if permitted by any other written law.” <sup>49</sup>, However, it is unclear how widely the new abortion law is understood or practiced within the medical community. The Kenyan penal code currently lists self-inducing abortion, or providing any other type of “unlawful” abortion, as felonies punishable by a 7–14-year prison sentence. Given these arguments, it could be said that majority of the abortions in Kenya are illegal. In this setting, women faced with an unintended pregnancy often self-induce abortions or obtain clandestine abortions from paramedical workers, or traditional healers.

Unsafe abortion thus remains a persistent public-health problem. Promoting the use of contraceptive methods to prevent unwanted pregnancies is one of the most effective strategies to reduce abortion rates and maternal morbidity and mortality. Understanding trends and factors that influence modern contraceptive uptake among young post abortion women is thus crucial to attain improvement of maternal health, and the progress toward the UN Millennium Development Goal 5 (MDG 5), to reduce maternal mortality and achieve universal access to reproductive health <sup>50</sup>. This study seeks to identify these determinants and explore any gaps that might exist with an aim of improving reproductive health services among women aged between 15-24 years. Specifically address ways to increase modern contraceptives use among this target group who are most at risk for repeated abortions and pregnancy complications, and therefore reduce maternal morbidity and mortality.

**Figure 1: Diagrammatic Representation of the Conceptual Framework**



## **CHAPTER 3: METHODOLOGY**

### **3.1 Study Setting**

The study was conducted at five urban Family Health Options Kenya (FHOK) clinics;

1. Family Care Medical Centre, Family Health Plaza, Mai Mahiu Road, Nairobi West, Nairobi County
2. Family Care Medical Centre, Phoenix House 5th Floor, Kenyatta Avenue-Nairobi, Nairobi County
3. Family Care Medical Centre, Thika Workshop Road, Thika, Kiambu County
4. Family Care Medical Centre, Junction Oginga Odinga and Market Road, Nakuru, Nakuru County
5. Family Care Medical Centre, Hospital Road, Eldoret, Uasin Gishu County

Family Health Options Kenya (FHOK) is a local Non-Governmental organization which has been a leading service provider of sexual and reproductive health services in the country for the last five decades. The organization provides Sexual and Reproductive Health Services through clinics throughout Kenya and also through community projects that actively involve beneficiaries. The organization has wide experience in provision of Integrated Youth Friendly HIV/AIDS and Reproductive Health Services. The services offered include; diagnosis and treatment of sexually transmitted infections, provision of contraceptives and post abortion care, among others. The study sites were selected because of the large number of young clients accessing their services.

### **3.2 Study Participants**

The study population comprised young females attending the FHOK clinic. WHO defines youth as persons aged 15 to 24years. Based on this definition, the following eligibility criteria were used to enrol participants in the study:

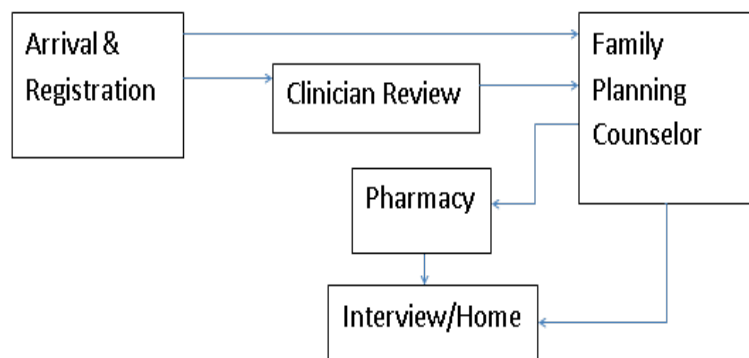


1. The participant should be a female aged 15 to 24 years on the first visit seeking post-abortion services.
2. The participant should be willing to participate in the study and document this by means of a written informed consent. In the case of clients aged 15 to 17 years consent was sought through their parent/guardian.
3. The participant should be willing to share her purpose of visit to the FHOK clinic with the study interviewer.

### 3.3 Study Design

This is a cross-sectional study. Over a period of two months, 15 to 24 year old clients attending the clinic for post abortion services were recruited for the study. The recruitment procedure is represented in the flowchart below:

**Figure 2: Flowchart of Recruitment Procedure**



### 3.4 Sample Size

Assuming a contraceptive prevalence rate of 4.9% among 15 to 19 year olds and 23.6% among youths aged 20 to 24 year in Kenya (KDHS 2009), we determined an absolute

precision of estimating contraceptive use to within 5% and using a 95% confidence interval, a sample size of least 170 participants was calculated as shown below:

$$n = \frac{z^2 pqD}{d^2}$$

where n = estimated sample size

z = standard normal deviate at the required confidence level

p = proportion in the target population estimated to be using modern contraceptives

q = 1 – p

D = design effect

d = the level of statistical significance set

$$n = \frac{1.96^2 * 0.13 * 0.87 * 1}{0.05^2}$$

$$n = 170$$

### 3.5 Data Collection

The participants were interviewed by five research assistants using a structured two part questionnaire after receiving post abortion contraceptive counselling. The first part dealt with the background characteristics of the respondents. It was used to collect information on respondents' demographic and socio-economic characteristics, such as age, number of living children, marital status, place of residence, work status, and level of education. The second

part consisted questions related to the dependent variable, namely modern contraceptive knowledge and uptake. Most of the questions were pre-coded with additional spaces provided so that respondents would have the option of own responses for some of the questions.

### **3.6 Variables**

#### **3.6.1 Primary Outcome Variable**

The main outcome measure was adoption of a modern contraceptive method following post-abortion counselling.

#### **3.6.2 Explanatory Variables**

To explore participant factors that impact on contraceptive uptake the following data was collected;

- Patient factors
  - demographic characteristics: age, marital status, religion, level of education, source of income or financial support, work status and residence
  - parity: previous delivery, number of living children, previous abortion,
  - previous contraceptive use
  - partner/parent influence
  - source of contraceptive information
  - concerns or fears about contraceptives
- Provider factors: time spent with counsellor, clients' perceived attitude of service provider and referral advice
- Facility factors: distance to health facility, health information on display, availability of contraceptive methods, setting for post-abortion contraceptive counselling

### **3.7 Data Analysis**

All data was entered on EpiData with data checks and validation conducted during and after the entry process. The validated data was then analyzed using Stata version 12 (Stata-corp, College Station, Texas, United States). Age was categorized into two age groups: ages 15-19 years and 20-24 years. Summary tables describing the frequency of the variables among those who accept to use modern contraceptives as compared to those who do not was computed. Bivariate analysis of the differences in these proportions was conducted using the chi-square test ( $\chi^2$ ). Multivariate analyses to control for confounding was performed using logistic regression by forward modelling with the addition of the variables with the strongest association with contraceptive uptake on bivariate analysis first and checking for the goodness of fit with the addition of each variable using the LR test. The effect modification of age on the association between the variables in the final model and modern contraceptive uptake was assessed.

### **3.8 Data Presentation**

The results of data analysis are presented using frequency distribution tables, bar graphs and pie chart.

### **3.9 Ethical Consideration**

Ethical approval for the study was obtained from the Kenyatta National Hospital/University of Nairobi Ethics Research Committee before execution of the study. Permission was also sought from the administration of Family Health Options Kenya (FHOK) to access their patients and hospital records. Written informed consent was obtained from each individual participant (or the parent/guardian for minors) prior to administering the questionnaire in

order to document their willingness to participate in the study. All participants in the study received normal standard of care for their condition according to the clinics' patient management guidelines. No coercion or methods that may unduly influence the patients to participate were employed.

### **3.10 Study Limitations**

#### **Response Rate;**

The overall response rate was 96%. Notably, not all the clients recruited into the study consented, although, non-response being 4% is unlikely to be statistically significant.

#### **Urban-based Study;**

This study was conducted at five urban clinics. The results may not address rural populations especially concerning access to health facilities. The study population though, represents the largest population of unmet need for contraceptives (KDHS 2008-9). Additionally, findings from this group regarding health information and modern contraceptive preference can be applied to other young people throughout the country.

## **CHAPTER 4: RESULTS**

### **4.1 Introduction**

This chapter describes the findings of the study. It is divided into two main sections. The first part deals with univariate analysis of socio-demographic factors, contraceptive method uptake, source of contraceptive information, perception of modern contraceptive methods, and information from health providers. The second part describes the association between Patient, Provider/Facility factors and modern contraceptive uptake outcomes.

The study was carried out between June and August 2014. A total of 181 post-abortion clients at FHOK clinics in the urban areas of Nairobi, Thika, Eldoret and Nakuru were approached to participate in the study. 174 clients accepted to respond to the interview questions and all of them were included in the final analysis.

### **4.2 Univariate Analysis**

#### **4.2.1: Maternal socio-demographic characteristics**

The mean age of the women interviewed was 23 years. The youngest female was 15 years old whereas the oldest client was 24 years old. Slightly less than a quarter of the mothers (17%) were under 19 years while the rest were older. Out of the 174 females interviewed, 69.5% had no living child while 21.3 % had only one living child. One hundred and twenty females (69%) had secondary education. About 36% of the females were employed. Among the respondents, 145 (83.3%) were single while the rest were married.

Table 1 outlines the demographic characteristics of the women interviewed in detail.

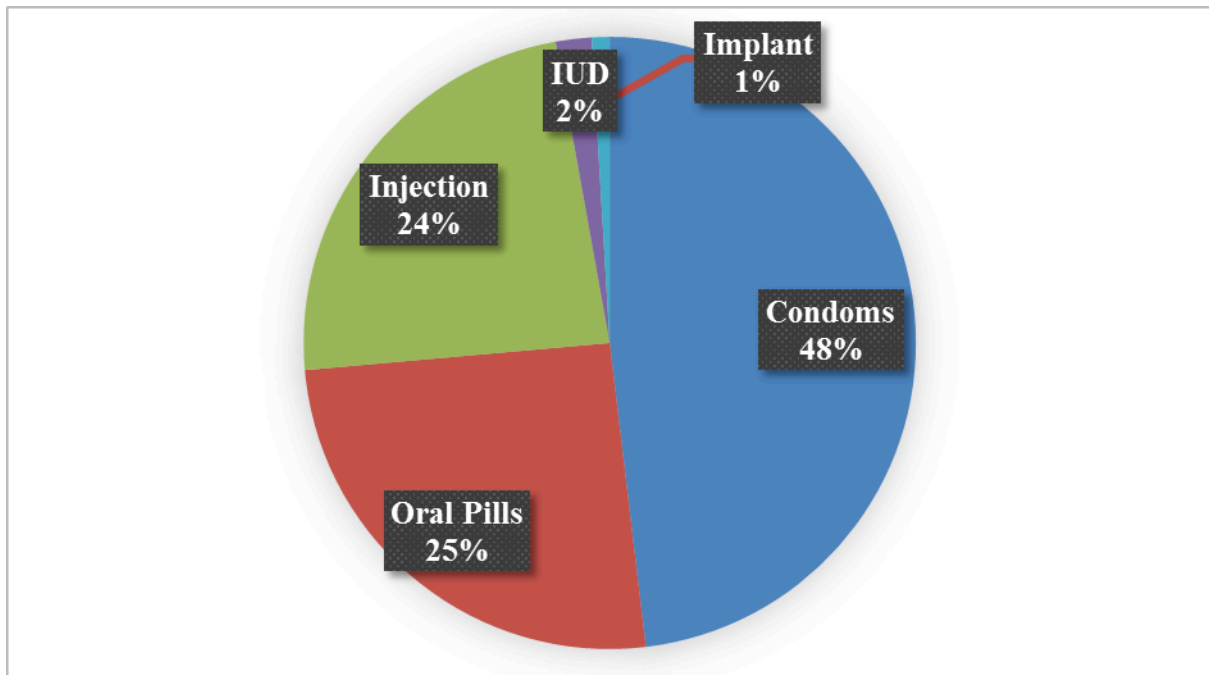
**Table 1: Socio-demographic characteristics of 15-24 year old Post abortion clients, FHOK 2014 (N = 174)**

<b>Characteristic</b>	<b>N (%)</b>
<b>Age</b>	
15-19	31(17.3)
20-24	143(82.2)
<b>Religion</b>	
Catholic	68(39.1)
Protestant	98(56.3)
Muslim	8(4.6)
<b>Education level</b>	
None	3(1.7)
Primary	49(28.2)
Secondary	120(69.0)
Tertiary	2 (1.1)
<b>Marital status</b>	
Single	145(83.3)
Married	29(16.7)
<b>Employment status/Income source</b>	
Employed	63(36.2)
Parent	64(36.8)
Guardian/Sponsor	20(11.5)
Spouse/Partner	27(15.5)
<b>No of living Children</b>	
0	121(69.5)
1	37(21.3)
2-3	14(8)
≥ 4	2(1.1)

#### **4.2.2 Immediate Post-abortion Modern Contraceptive Uptake**

More than half 106(60.9%) of the women interviewed adopted a modern contraceptive method. Out of the 106, majority 48% adopted condom whereas IUD and implants were the least adopted methods as shown in figure 3 below:

**Figure 3: Modern Contraceptive Method Adopted among 15-24 year old Post-abortion Clients, FHOK 2014**



#### **4.2.3 Previous Miscarriage**

Of all women interviewed, 10 (5.7%) have had a miscarriage in their life while the rest had not.

#### **4.2.4 Previous Delivery**

Of all women interviewed, 51(29.3%) had a previous delivery.

#### **4.2.5 Health Communication**

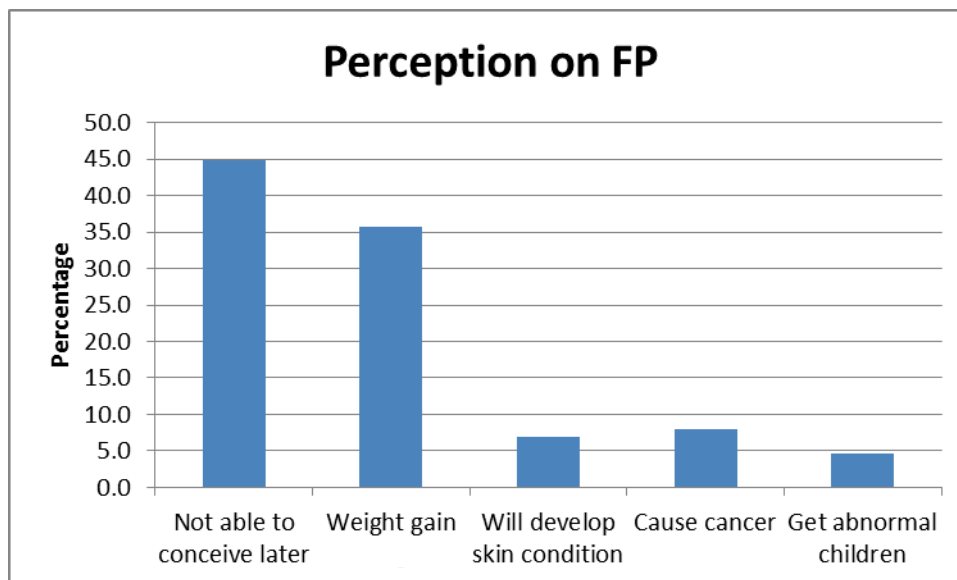
Positive and helpful communication between the women and health care worker(s) took place in 166 (95.4%) of the women interviewed, while in 8 (4.6%) it was negative and not helpful.



#### 4.2.6 Perception of Family Planning Methods

Of all 174 women, 78 (45%) feared that using FP will in future contribute to inability to conceive. Getting abnormal children was the least reported (5%) among the interviewed women. The rest of the perceptions from the clients are shown in figure 4 below:

**Figure 4: Perceptions on Modern Contraceptive Use among 15-24 year old post abortion clients, FHOK 2014**

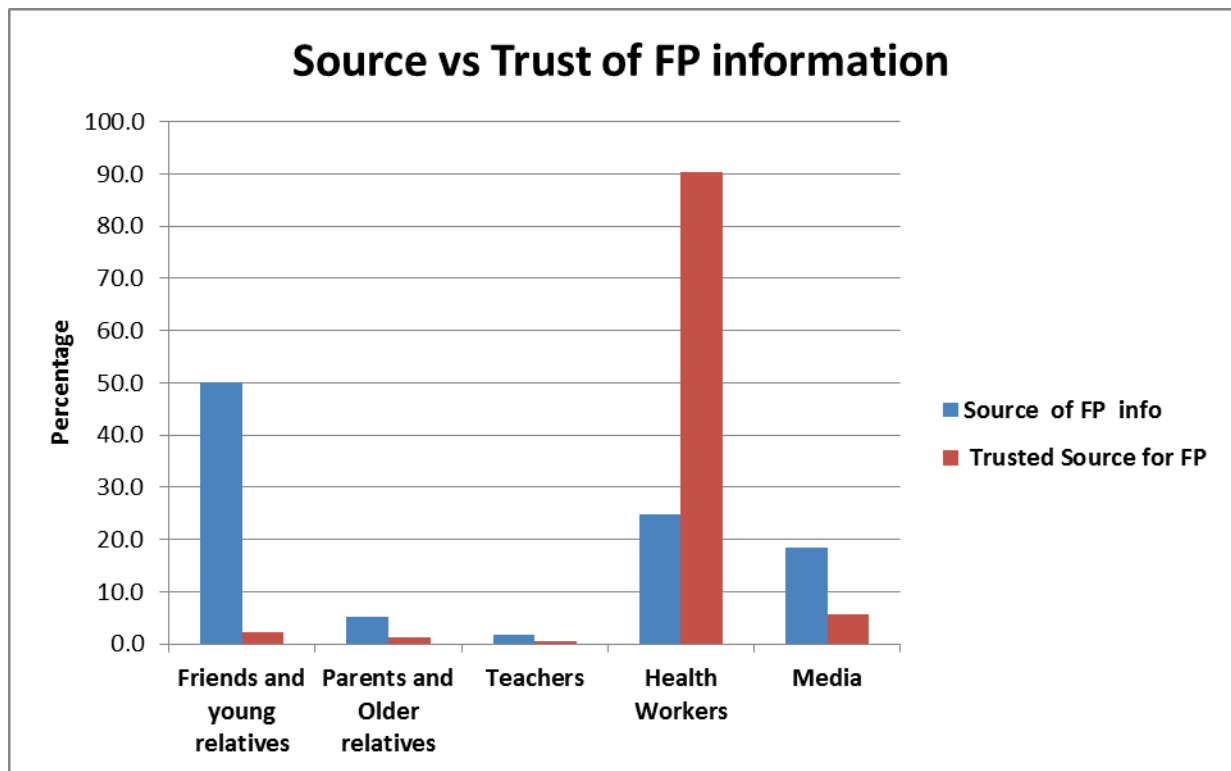


#### 4.2.7 Source and level of Trust of Contraceptive Information

Of all the interviewees, 87(50%) get information from friends and young relatives although only 4 (2.3%) trust this information.

Most clients alluded to trusting 157(90.2%) contraception information originating from the Health care worker.

**Figure 5: Modern Contraception Information Source and Level of Trust among 15-24 year old post abortion clients, FHOK 2014**



### 4.3 Bivariate Analysis

Bivariate analysis was done using ANOVA, Chi-square and Simple logistic regression in which all the selected Patient, Provider and facility factors (independent variables) were analyzed for association with Modern contraceptive uptake of interest (dependent variable). The results are illustrated in the tables that follow.

#### 4.3.1 Association between Patient Factors and Modern Contraceptive Uptake

Bivariate analysis showed that Age of the client (OR, 95% CI: 0.3883, 0.176-0.857,  $p=0.017$ ), the number of living children (OR, 95% CI: 0.31, 0.131-0.732,  $p=0.011$ ), current marital status (OR, 95% CI: 0.3419, 0.134-0.909,  $p=0.026$ ) and previous delivery (OR, 95% CI: 3.141, 1.475-6.686,  $p<0.000$ ) were the factors significantly associated with Modern

contraceptive uptake among women seeking post abortion care at FHOK clinics as illustrated in table 2 below:

**Table 2: Association between Patient Factors and Modern Contraceptive uptake among 15-24 year old post abortion clients, FHOK 2014**

Social Demographic and Patient factors		N (%)	Adopted FP	No FP adopted	Odds Ratio (OR)	95% Confidence Interval for OR	P-value
Age	15-19	31(17.8)	13	18	0.3883	0.176-0.857	0.017
	20-24	143(82.2)	93	50			
Number of living Children	0	121(69.5)	64	57			0.011
	1	37(21.3)	29	8	0.31	0.131-0.732	
	2-3	14(8)	11	3	0.306	0.081-1.153	
	≥ 4	2(1.1)	2	0	0	0	
Religion	Catholic	68(39.1)	47	21			0.114
	Protestant	98(56.3)	56	42	1.679	0.875-3.221	
	Muslim	8(4.6)	3	5	3.73	0.815	
Education Level	None	3(1.7)	2	1			0.12
	Primary	49(28.2)	23	26	2.261	0.192-26.6	
	Secondary	120(69)	80	40	1	0.088-11.362	
	Tertiary	2(1.1)	1	1	2	0.051-78.25	
Marital status	Single	145(83.3)	83	62	0.3419	0.134-0.909	0.026
	Married	29(16.7)	23	6			
Income	Employed	63(36.2)	44	19			0.128
	Parent	64(36.8)	32	32	2.316	1.119-4.795	
	Guardian/Sponsor	20(11.5)	12	8	1.544	0.544-4.385	
	Spouse/Partner	27(15.5)	18	9	1.158	0.441-3.037	
Previous Delivery	Yes	51(29.3)	40	11	3.141	1.475-6.686	0.002
	No	123(70.7)	66	57			
Previous Pregnancy loss	Yes	10(5.7)	4	6	0.444	0.121-1.634	0.163
	No	164(94.3)	102	68			

### 4.3.2 Association between Health Facility and Provider Factors and Modern

#### Contraceptive Uptake

Bivariate analysis showed that preferred time to receive counselling (OR, 95% CI: 2.226, 1.171-4.231,  $p=0.014$ ) was significantly associated with Modern contraceptive uptake while the other health facility and provider factors had less impact as illustrated in table 3 below:

**Table 3: Association between Health facility/ Provider factors and Modern Contraceptive uptake among 15-24 year old post abortion clients, FHOK 2014**

Health Facility and Provider factors		N (%)	Used FP	Never used FP	Odds Ratio (OR)	95% Confidence for OR	P-value
Time to receive Counselling	Immediate post abortion	102(61.4)	69	33	2.226	1.171-4.231	0.014
	Later appointment	64(38.6)	31	33			
Transport cost to HF(KShs)	<100	118(69.4)	70	48	1.000		0.696
	101-200	41(24.1)	27	14	0.756	0.360-1.589	
	>200	11(6.5)	6	5	1.215	0.351-4.209	
Preferred time with counsellor(Min)	<15	33(20.1)	16	17	1.000		0.198
	15-30	67(40.9)	45	22	0.460	0.196-1.079	
	>30	64(39)	39	25	0.603	0.259-1.408	
Pressure to accept FP	Yes	53(31.7)	28	25	0.605	0.312-1.174	0.136
	No	114(68.3)	74	40			
Health communication	Positive and Helpful	166(95.4)	101	65	1.000		0.925
	Negative and Not helpful	8(4.6)	5	3	0.923	0.216-4.034	

#### 4.4 Multivariate Analysis

Multivariate analysis done; Previous delivery (OR, 95% CI: 2.79, 1.295-6.024,  $p=0.009$ ) significantly associated with modern contraceptive uptake, Age 20-24 years (OR, 95% CI: 2.10, 0.932-4.730,  $p=0.073$ ) associated with increased odds of modern contraceptive uptake.

**Table 4: Multivariate Analysis for the Final Model**

<b>Variable</b>	<b>Odds Ratio</b>	<b>95% CI for OR</b>	<b>p-value</b>
Previous Delivery	2.79	1.295-6.024	0.009
Age (20-24)	2.10	0.932-4.730	0.073

## **CHAPTER 5: DISCUSSION**

### **5.1 Introduction**

This section discusses the results in relation to the stated objectives. It explains the major findings of the study and compares them to the findings from similar studies done elsewhere. It has subsections each elaborating on the specific objectives. Each subsection is devoted to one selected client factor and its relationship with family planning uptake. The client factors have been discussed in the following order; Socio-demographic characteristics, Adoption of Family planning method, Health Communication and Source of Contraceptive information, Perception of Family Planning methods and Association between Patient, Provider/Facility factors and Modern Contraceptive uptake outcomes.

### **5.2 Socio-demographic Characteristics**

In this study, 60.9% of those interviewed adopted a family planning method much higher than the contraceptive prevalence rate KDHS 2009 (4.9% 15-19years, 23.6% 20-24years). The high uptake could be due to increased need of contraception following an abortion to prevent a re-occurrence of the experience. On the contrary, it is lower than in a Brazil study by Ferreira et al where 97.4% accepted the use of at least one contraceptive method after post-abortion contraceptive counseling <sup>51</sup>. This may be due to the higher age group of women interviewed, compared to our study group.

On examination of the socio-demographic characteristics most females seeking post abortion services were young, well educated, employed and married females (Table 1). The mean age of females in our study was 23 years. This is similar to reports by Ndola et al in Ethiopia among post abortion clients where the mean age of women requesting services was 25 and 79% of

women were ages 20 to 29<sup>16</sup>. More education was associated with increase odds of adopting family planning service. This could be due to the fact that both Kenya and Ethiopia are sub-Saharan countries and having the same demographic characteristics.

Similar to Ferreira et al<sup>51</sup>, being a student, ever having a previous abortion and higher parity were all significantly associated with increased odds of adopting modern methods of family planning.

### **5.3 Adoption of Family Planning Method**

Majority (48%) of those who adopted a family planning method preferred condom, 25% accepted oral contraceptive pills and 24% injectable contraceptive (Figure 3). This is different from Ndola et al where the majority adopted pills and injectable contraceptives with a few utilizing the condom<sup>16</sup>. In a study in Nigeria by Chigbu B majority of the clients (71.8%) accepted injectable hormonal contraceptives followed by the intrauterine contraceptive devices (14.4%)<sup>52</sup>.

Ferreira et al, the preferred family planning method was injectable contraceptives, followed by oral contraceptives and condoms, differing only slightly with Goldstone et al, where the most popular contraceptive method adopted after abortion in Australia was the oral contraceptive pill, chosen by 38.5% of women, implant by 27.4% and condoms were chosen by 15.5%<sup>51-53</sup>.

The preference may be affected by failure of previous method which our study group may have not experienced as well as cost of method where clients may opt for cheaper alternative. Secura et al in a very recent study in the United States of America reported increased use of implants by adolescents receiving post abortion services, where the method was offered at no cost<sup>54</sup>.

#### **5.4 Health communication and Source of Contraceptive Information**

Positive and helpful communication between the women and health care worker took place in 95.4% of the women interviewed. In addition, 50% got information from friends and young relatives although only 2.3% trust this information; clients alluded to trusting 90% of information originating from the health care worker (Figure 5). These results are supported by findings in a study by Chigbu B where friends were the leading source of initial information (48.2%), followed by health care personnel (28.4%), radio drama (15.5%), and relatives (7.9%)<sup>52</sup>. Health information from health care providers remains most trusted and this study does expose the gaping need for the same in the younger clients.

#### **5.5 Perception of Family Planning Method**

Attitude of the women towards the various family planning methods was an important factor influencing contraceptive choices of the women interviewed.

In the study, of all clients interviewed, 45% feared that using FP will in future contribute to inability to conceive while 35 % were afraid of the weight gain weight (Figure 4).

Such fears were also reported in a study by Chigbu B where 34% believed the IUDs could be displaced by the penis during coitus and perforate the womb causing infertility, whilst 23% cited rumors of high failure rate with the IUDs as reasons for dislike of the IUDs<sup>52</sup>.

It is evident that myths and misconceptions about modern contraceptive methods may bias attitudes such that many women who might benefit never accept to utilize family planning services.



## **5.6 Association between Patient, Provider/Facility Factors and Modern Contraceptive Uptake**

Immediate post abortion counselling has been shown to increase contraceptive uptake, as was reported by, Rasch et al, Ferreira et al, Yassin et al <sup>33,51,55</sup>. Deferring family planning counselling to a follow up visit was not preferred by almost all the clients (Table 3).

This may be explained by the need for all possible interventions to prevent a ‘mistimed’ pregnancy among post-abortion clients during the initial visit.

Clients who had experienced a previous delivery were more likely to adopt a modern contraceptive (Table 4) similar to Rasch et al <sup>33</sup>. These youth had previous interaction with reproductive health services and therefore, may have been more receptive to contraceptive counselling.

The younger age group had lower modern contraceptive uptake (Table 4) as was seen by Ndola et al <sup>16</sup> exposing a gaping need in contraceptive use. This demands strategies to increase family planning use targeting this population.

Secura et al focusing on 15 – 19 year old girls in USA; 78% of the clients adopted a long acting reversible contraceptive method and these results can be replicated in our setting with concerted efforts in the sector <sup>54</sup>.

## **CHAPTER 6: CONCLUSION AND RECOMMENDATIONS**

This study shows that immediate post abortion family planning counselling is an important intervention to increase contraceptive uptake and thereby reduce unwanted pregnancy and the attendant morbidity and mortality. It is especially so for the youth who commonly procure ‘unsafe’ abortions and also experience more pregnancy complications. The adolescents do not readily access reproductive health services and therefore require integrated health models such as post abortion care to avoid missed opportunities. Particular attention should be paid to the younger adolescent clients and those who have not had any previous delivery as they have been shown to be less likely to take up contraceptives after post-abortion counseling.

It is also evident that there is need for the health care system to explore and implement strategies to improve reproductive health education among teenagers such as, school programs and social media teaching by medical workers. This would provide a platform for access to correct and trustworthy reproductive health information for the youth.

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## **APPENDICES**

### **Appendix 1: Consent Form**

**Research Title: Determinants of Modern Contraceptive Uptake Among 15-24 year old Clients Following Post Abortion Counselling, FHOK 2014**

**Principal Investigator; Dr Jessica Uwera Tel; 0722-483686**

#### **Introduction**

You are being invited to take part in a research study. Before you decide whether or not to take part, it is important for you to understand why the research is being done and what it will involve.

#### **Purpose of study**

Dr Jessica Uwera who is currently studying at University of Nairobi is carrying out a survey to assess the use of modern contraceptive among youth receiving post abortion care. The results will be used to develop better and more effective youth friendly services by the Ministry of Health and other stakeholders and to help increase the use of modern contraceptives.

#### **Study procedure**

The information will be collected using a structured questionnaire that will be administered by an investigator who is a health provider.

All details that can identify you will be removed before storing the data. All the information collected in this survey, will be stored in a locked cabinet in Dr Jessica Uwera's custody and will only be accessible to her.

The data will then be analysed to help us build an understanding of public awareness on contraceptives so that we can develop ways to improve contraceptive usage.

#### **Risks and Discomforts**

Once you agree to participate, it will take approximately fifteen minutes to answer the questionnaire. Some of the questions are of a personal nature such as sexual history.

#### **Voluntary Participation**

Taking part in the study is voluntary: you can withdraw at any point of the interview. There is no compensation for participating in this study and you will receive the same standard of care as any other client accessing similar services.

In the event you are unable to read and write, this form will be read to you by the investigator and upon consent your thumbprint will be requested.

Signing this consent form indicates that you have read this consent form (or have had it read to you), that your questions have been answered to your satisfaction, and that you voluntarily agree to participate in this research study. You will receive a copy of this signed consent form.

If you agree to participate in this study, please sign below;

\_\_\_\_\_  
Participant's Signature

Date: \_\_\_\_\_

\_\_\_\_\_  
Investigator Obtaining Consent Signature

Date: \_\_\_\_\_

**For further information please contact:**

Dr Jessica Uwera

Tel: +254722483686

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## **Appendix 2: Consent Form (Swahili): Fomu ya Idhini**

### **Mambo Yanayohusiana na Upokeaji wa Njia za Kupanga Uzazi za Kisasa Miongoni mwa Vijana Baada ya kutoa Mimba, FHOK 2014**

**Mpelelezi mkuu; Dr Jessica Uwera Tel; 0722-483686**

Unaalikwa kuwa mshirika katika utafiti. Kabla ya kuhusika ni muhimu kuelewa ni kwa nini utafiti huu unafanyika na ni nini intahitajika kutoka kwako. Tafadhali chukua muda wa kusoma taarifa ifuatayo kwa makini.

#### **Lengo la utafiti**

Dr Jessica Uwera ambaye kwa sasa ni msomi katika Chuo Kikuu cha Nairobi anafanya utafiti huu ili kutathmini matumizi ya njia za upangaji uzazi za kisasa miongoni mwa vijana wanaopokea huduma baada ya utoaji mimba. Matokeo ya utafiti huu yatatumika kuendeleza huduma bora zinazofaa vijana katika Wizara ya Afya na wadau wengine, na kusaidia kuongeza matumizi ya mbinu za upangaji uzazi za kisasa.

#### **Kwa nini nimealikwa kushiriki katika utafiti**

Tuna waalika wanawake wenye umri kati ya miaka 15 na miaka 24 ambao wako tayari kueleza sababu zao za kutembelea kliniki ya FHOK kushiriki katika utafiti huu.

#### **Je, ni lazima mimi nishiriki katika utafiti huu**

Kushiriki ni kwa hiari ya mshirika. Ukikubali kushiriki katika utafiti huu, utapatiwa fomu ya ridhaa kutia sahihi kudhibiti ruhusa yako kushiriki. Kama mshirika bado, uko na uhuru kujiondoa kutoka utafiti hata baada ya kutia sahihi kwenye fomu ya ridhaa hata bila kupatiana sababu.

#### **Nifanye nini kushiriki**

Ukiamua kushiriki katika utafiti, itachukua takriban dakika 15 kukamilisha. Utaulizwa maswali kadhaa kwa njia ya dondoo.

Taarifa zote zitakazokusanywa hazita ambatanishwa na majina yoyote. Taarifa yako binafsi haitafichuliwa kwa yeyote.

#### **Nini itafanyikia taarifa itakayao kusanywa**

Maelezo yote ambayo yanaweza kukutambulisha kwenye taarifa zitakazokusanywa yataondolewa. Taarifa yote itahifadhiwa vizuri na kwa njia ya siri. Daktari Jessica Uwera pekee, ndie atakayehifadhi taarifa.

Taarifa kisha itachambuliwa na kutumika kutusaidia kuendeleza njia za kuboresha matumizi ya kupanga uzazi katika umma.

Asante kwa kuchukua muda wa kusoma maelezo haya.

Kwa kutia sahihi kwenye fomu hii itaonyesha ya kwamba umesoma na kuelewa au umesomewa na kuelewa yaliyomo ndani ya fomu. Itadhihirisha kuwa umepata fursa ya kuuliza maswali kuhusu utafiti huu na ukaridhika na majibu uliyoyapata. Pia itaonyesha ya kwamba kwa hiari yako umekubali kuhusika kwenye utafiti huu. Utapatiwa nakala ya fomu hii baada ya kutia sahihi.

Kama unakubali kushiriki katika utafiti huu, tafadhali idhinisha kwenye mstari.

---

Sahihi ya Mshiriki

Tarehe: \_\_\_\_\_

---

Sahihi ya Mpelelezi

Tarehe: \_\_\_\_\_

Kwa maelezo zaidi tafadhali wasiliana na:

Dr Jessica Uwera

Tel: +254722483686

Barua pepe:

[uwerajessica@yahoo.com](mailto:uwerajessica@yahoo.com)

AU

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## **Appendix 3: Consent Form for Parent/Guardian**

**Research Title: Determinants of Modern Contraceptive Uptake among 15 -24 year old clients Following Post Abortion Counselling, FHOK 2014**

**Principal Investigator; Dr Jessica Uwera Tel; 0722-483686**

### **Introduction**

Your child is being invited to take part in a research study. Before you decide whether or not to allow them to take part, it is important for you to understand why the research is being done and what it will involve.

### **Purpose of the study**

Dr Jessica Uwera who is currently studying at University of Nairobi is carrying out a survey to assess the use of modern contraceptive among youth receiving post abortion care. The results will be used to develop better and more effective youth friendly reproductive health services by the Ministry of Health and other stakeholders.

### **Study procedures**

Your child will be asked several questions by use of a structured questionnaire. Details that can identify you will be removed before storing the data. All the information collected in this survey, will be stored in a locked cabinet in Dr Jessica Uwera's custody and will only be accessible to her. The data will then be analysed to help us build an understanding of public awareness on contraceptives so that we can develop ways to improve contraceptive usage.

### **Risks and Discomforts**

Once you allow your child to participate, the questionnaire will take about fifteen minutes to complete. Some of the questions may be uncomfortable such as sexual history.

### **Voluntary Participation**

Taking part in the study is voluntary and you can withdraw your child at any point during the interview without giving any reason. There is no compensation for participating and your child will receive the same standard of care as other clients accessing similar services.

In the event you are unable to read and write, the information will be read to you and upon your consent your thumbprint will be requested.

Thank you for taking the time to read this consent form.

If you agree to your child participating in this study, please sign below.

\_\_\_\_\_

Signature of Parent/Guardian

Relationship: \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_

Investigator Obtaining Consent Signature

Date: \_\_\_\_\_

**For further information please contact:**

Dr Jessica Uwera

Tel: +254722483686

E-mail: [uwerajessica@yahoo.com](mailto:uwerajessica@yahoo.com)

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E-mail: [uonknh\\_erc@uonbi.ac.ke](mailto:uonknh_erc@uonbi.ac.ke)

## **Appendix 4: Consent Form for Parent/Guardian (Swahili)**

### **Mambo Yanayohusiana na Upokeaji wa Njia za Kupanga Uzazi za Kisasa Miongoni mwa Vijana Baada ya kutoa Mimba, FHOK 2014**

**Mpelelezi mkuu; Dr Jessica Uwera Tel; 0722-483686**

Mtoto wako anaalikwa kuwa mshirika katika utafiti. Kabla ya kuhusika ni muhimu kuelewa ni kwa nini utafiti huu unafanyika na ni nini intahitajika kutoka kwa mtoto wako. Tafadhali chukua muda wa kusoma taarifa ifuatayo kwa makini

#### **Lengo la utafiti huu**

Dr Jessica Uwera ambaye kwa sasa ni msomi katika Chuo Kikuu cha Nairobi anafanya utafiti huu ili kutathmini matumizi ya njia za upangaji uzazi za kisasa miongoni mwa vijana wanaopokea huduma baada ya utoaji mimba. Matokeo ya utafiti huu yatatumika kuendeleza huduma bora zinazofaa vijana katika Wizara ya Afya na wadau wengine, na kusaidia kuongeza matumizi ya mbinu za upangaji uzazi za kisasa.

#### **Kwa nini mtoto wangu amelikwa kushiriki**

Tunawaalika wanawake wenye umri kati ya miaka 15 na miaka 24 ambao wako tayari kueleza sababu zao za kutembelea kliniki ya FHOK kushiriki katika utafiti huu.

Watoto wenye umri chini ya miaka 18 wanahitaji kisheria, idhini ya wazazi au walezi wao wa kisheria kushiriki katika utafiti huu.

#### **Je, ni lazima mtoto wangu ashiriki**

Kushiriki ni kwa hiari. Ukikubali mtoto wako kushiriki kwenye utafiti huu kwa hiari yako, utapatiwa fomu ya ridhaa kutia sahihi kudhibiti ruhusa kushiriki. Mtoto wako bado ako na uhuru wa kujiondoa kutoka kwenye utafiti hata baada ya kutia sahihi kwenye fomu ya ridhaa, bila ya kutoa sababu.

#### **Mtoto wangu afanye nini kushiriki**

Ukiamua mtoto wako anaweza shiriki katika utafiti huu itachukua takriban dakika 15 kukamilisha. Mtoto wako ataulizwa maswali kadhaa kwa mbinu ya dondoo.

Taarifa zote hazitambatanishwa na majina yoyote. Taarifa ya mtoto wako haitafichuliwa kwa yeyote.

Asante kwa kusoma maelezo haya.

Kwa kutia sahihi kwenye fomu hii itaonyesha ya kwamba umesoma na kuelewa au umesomewa na kuelewa yaliyomo ndani ya fomu. Itadhihirisha kuwa umepata fursa ya kuuliza maswali kuhusu utafiti huu na ukaridhika na majibu uliyoyapata. Pia itaonyesha ya kwamba kwa hiari yako umekubalia mtoto wako kuhusika kwenye utafiti huu.

Kama unakubali, tafadhali idhinisha kwenye mstari.

\_\_\_\_\_  
Sahihi ya Mzazi / Mlezi

Uhusiano \_\_\_\_\_

Tarehe: \_\_\_\_\_

\_\_\_\_\_  
Sahihi ya Mpelelezi

Tarehe: \_\_\_\_\_

Kwa maelezo zaidi tafadhali wasiliana na:

Dr Jessica Uwera

Tel: +254722483686

Barua pepe:

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## **Appendix 5: Research Assent Form**

**Research Topic: Determinants of Modern Contraceptive Uptake Among 15-24 year old Clients Following Post Abortion Counselling, FHOK 2014**

**Principal Investigator; Dr. Jessica Uwera**

**Tel; 0722-483686**

### **Introduction**

We want to tell you about a research study we are doing. A research study is a way to learn information about something. We would like to find the reasons why young girls who are receiving post abortion care decide to use or not use modern methods of avoiding pregnancy.

### **Purpose of the study**

The study will help us learn how to improve services that prevent unplanned pregnancy and allow young clients plan their families and future.

### **Study procedure**

If you agree to join this study, you will be asked to provide some information about yourself by use of a form. Some of the questions may need you to give private information about yourself but not your name.

### **Risks and benefits**

It will take about 15 minutes to answer all questions. Some of the questions may be uncomfortable to answer. There is no compensation for participating in the study.

### **Voluntary participation**

You do not have to join this study. It is up to you. You can say okay now, and you can change your mind later. All you have to do is tell us. No one will be unhappy with you if you change your mind.

If you want to be in this study, please sign your name. You will get a copy of this form to keep for yourself.

---

(Sign your name here)

---

(Date)

---

(Investigator's sign/name)

---

(Date)

## Appendix 6: Research Assent Form (Swahili)

### Utafiti wa Mambo Yanayohusiana na Upokeaji wa Njia za Kupanga Uzazi za Kisasa Miongoni mwa Vijana Baada ya kutoa Mimba, FHOK 2014

Mpelelezi Mkuu : Dr Jessica Uwera  
Simu: 072248368

Tunataka kukueleza kuhusu utafiti tunaofanya. Utafiti ni mbinu ya kufanya uchunguzi kuhusu jambo fulani ili kujifahamisha zaidi. Tungependa kuelewa sababu zinazofanya wasichana wachanga wanaotoa mimba kuamua kutumia au kutotumia mbinu za kisasa za kuzuia mimba.

Wewe ukikubali kushiriki katika utafiti wetu, utatakikana kutoa taarifa inayokuhusu ukitumia mbinu ya dondoo. Baadhi ya maswali utakayoulizwa yatahusu taarifa za kibinafsi au za kisiri.

Itachukua takriban muda wa dakika 15 kujibu maswali yote . Baadhi ya maswali utakayoulizwa yanaweza kukutatanisha.

Watafiti wataweza kujifunza zaidi kuhusu wasichana wachanga na upangaji uzazi, haswaa kupunguza wasichana wachanga kupata mimba zisizokuwa zimepangwa.

Si lazima kushiriki katika utafiti huu. Unaweza kujiunga kwa hiari yako mwenyewe na kujiondoa wakati wowote kutoka utafiti bila kueleza sababu. Tueleza tuu nia yako kujiondoa kwenye utafiti.

Taarifa zote tutakazopata kwenye utafiti, tutaweka siri.

Tutajibu maswali yako yote kabla ujisajili kushiriki kwenye utafiti.

Ukitaka kushiriki kwenye utafiti tafadhali jisajilishe au jiandikishe jina lako hapa chini. Tutakupa nakala ya fomu hii.

---

(Tungeomba jina na sahihi yako hapa )

( Tarehe)

---

(Jina na sahihi ya Mpelelezi )

( Tarehe)



**Appendix 7: Questionnaire**

**A. DEMOGRAPHIC CHARACTERISTICS**

1. Patient number:

2. Completed age in years

3. Marital Status; a  Single b  Married c  Divorced / Separated

4. Religion; a  Catholic  
b  Protestant  
c  Muslim  
d  Other, specify \_\_\_\_\_

5. Highest level of education attained; a None   
b Primary   
c Secondary   
d Tertiary

6. Source of income/financial support; a  Employed  
b  Self employed  
c  Parent  
d  Guardian/sponsor  
e  Spouse/ partner  
f  Other, specify \_\_\_\_\_

7. Current living situation; a  Student at home/guardian  
b  Student at hostel/own residence  
c  Living with parent guardian  
d  Living with partner  
e  Living at own residence,  
f  Other, specify \_\_\_\_\_

8. Current residence;  
County or Town \_\_\_\_\_

Estate: \_\_\_\_\_

**B. PATIENT FACTORS**

9. Previous delivery; a  Yes b  No

10. Number of living children; a  1      b  2- 3      c  more than 4

11. Have you had a miscarriage; a  Yes      b  No

12. i) Have you ever used family planning method; a  Yes      b  No

ii) If yes for part i) above, indicate which contraceptive method below:

- Condoms
- Injection e.g. Depo
- Oral contraceptive pills
- IUD e.g. Coil
- Implant e.g. Jadelle

13. i) Family planning method taken; a  Yes      b  No (If no, go to question 14)

ii) If yes which method tick below to indicate which contraceptive method chosen

- Condoms
- Injection e.g. Depo
- Oral contraceptive pills
- IUD e.g. Coil
- Implant e.g. Jadelle

iii) Is partner; a  Aware and accepting  
b  Aware but not accepting  
c  Not aware

iv) Is parent; a  Aware and accepting  
b  Aware but not accepting  
c  Not aware

14. Worries about family planning methods; a  Will not be able to conceive later  
b  Weight gain weight  
c  Will develop skin condition  
d  Will cause cancer  
e  Will get abnormal children

f  Other specify \_\_\_\_\_

15. Source of contraceptive information:
- a  Friends and young relatives
  - b  Parents and older relatives
  - c  School teachers
  - d  Health workers
  - e  Media e.g. television, radio
  - f  Other, specify \_\_\_\_\_

15. Which of the following sources of contraceptive information do you trust most?

- a  Friends and young relatives
- b  Parents and older relatives
- c  School teachers
- d  Health workers
- e  Media e.g. television, radio
- f  Other, specify \_\_\_\_\_

### ***C. HEALTH FACILITY AND PROVIDER FACTORS***

16. Transport cost to facility

- a  KES 100 and below      b  KES 100-200      c  KES more than 200

17. Preferred setting to receive post abortion contraception counseling;

- a  Immediate post abortion      b  Later appointment

19. Actual Time spent with counselor;

- a  0-15 min      b  15-30 min      c  more than 30 min

20. Preferred time with counselor;

- a  0-15 min      b  15-30 min      c  more than 30 min

21. Felt pressure to accept contraceptive method; a  Yes b  No

23. Attitude/advice from the health worker;

a  Positive/Very helpful b  Negative/Not helpful c  Preaching

24. Referred/Offered advice for future services; a  Yes b  No

**END**

[Thank the participant for her time and willingness to participate in the study]