THE QUALITY OF POST ABORTION CAREPACKAGE OFFERED TO WOMEN PRESENTING TO TWO REFERRAL HOSPITALS IN BOMET COUNTY

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A Research Report Submitted to the Institute of Postgraduate Studies of Kabarak University in Partial Fulfillment of the Requirements for the Award of Master of Medicine in Family Medicine

KABARAK UNIVERSITY

NOVEMBER 2020

DECLARATION

1. I do declare that;
   i) This thesis is my original work and to the best of my knowledge it has not been presented to any institution as a research paper for the award or conferment of any academic degree or diploma.
   ii) That the work has been subjected to the process of antiplagiarism and has met Kabarak University 15% similarity index threshold.
2. I do understand that issues of academic integrity are paramount and therefore I may be suspended or expelled from the university or my degree be recalled for academic honesty and other related malpractices.

Signed_____ Date _____

Mourine Melenia

GMMF/M/1354/09/16

RECOMMENDATION

To: The Institute of Post Graduate Studies,

This thesis paper titled, '**The Quality of Post Abortion Care Package Given to Women Presenting to Two Hospitals in Bomet County**' and written by Melenia Mourine, is presented to the Institute of Post Graduate Studies of Kabarak University. We have reviewed it and recommend it be accepted in partial fulfillment of the Degree of Master of Medicine in Family Medicine.

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ACKNOWLEDGEMENT

I would like to genuinely thank the department of Family Medicine and Community Care of Kabarak University for having dedicated their time to ensure that this work is up to the required standard. I would like to express my sincere gratitude to my supervisors Dr. Michael Mwachiro and Dr. Cheryl Cowles for their efforts to see that my proposal was written properly. Finally, I thank God for his faithfulness and grace.

DEDICATION

I dedicate this work to my patients who challenge me to become a better doctor and my family for being very supportive.

ABSTRACT

In 2011, WHO reported 56 million abortions worldwide. The majority of these occurred in the developing world. Maternal mortality in Kenya isstill high at 488/100,000 live births, with abortion related deaths contributing to the top five causes of maternal mortality. The Comprehensive post abortion care package (CPAC), which offers holistic care, has been shown to decrease the rate of maternal mortality and morbidity. This study aimedto determine if all the elements of CPAC were offered to women presenting to hospitals in Bomet County and thesewomen's level of satisfaction with care. A Cross-sectional study was undertaken at two referral hospitals in Bomet County, Tenwek Mission hospital and Longisa County referral hospital.Analysis of the responses involved categorical independent and dependent variables and Likert scales.100 respondents were surveyed with a mean age of 26.6 years, range (16-42yrs). Generally, access to care was poor with 70% accessing care after 24 hours despite life threatening complications. This led to high cost of care where a majority 62% needing blood and 89% requiring evacuation of retained products of conception. Gaps were noted in uptake of family planning services where only 46% were offered a contraceptive method with an uptake of 36% and of these, the options chosen were mainly short-term methods. Those who were more than 25 years were more likely to be offered a family planning option (56%) compared to those less than 24 years (22%) in thefaith-based facility with OR of 0.22(0.06,0.83) P value <0.02. On spiritual care and emotional counseling, 100% of respondents reported having been emotionally affected by the abortion but only 66% reported care in that area. Only 46% of the patients were tested and counselled for HIV and STIs. Linkage to care was also generally poorly represented with patients reporting late access to care, improper referral system and inadequacies in follow-up after discharge. Results generally indicate that there are still gaps in how frequently each of the elements of CPAC with only 30% of the respondents receiving the whole CPAC package as per the guidelines. Nevertheless, most patients reported satisfaction with the services they received with a p value of < 0.05. Efforts need to be put in place to advocate for adherence to CPAC as stipulated in the guidelines with the aim of reducing the vicious cycle of repeat abortions and maternal morbidity and mortality.

Key Words; Comprehensive Post Abortion Care, Abortion, Holistic Care

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ABBREVIATIONS AND ACRONYMS

APHRC	African Population and Health Research Center
CDC	Centers for Disease Control and Prevention
CHW	Community Health Workers
CPAC	Comprehensive Post Abortion Care
DHMIS	District Health Management Information System
HIV	Human Immunodeficiency Virus
IREC	Institutional Research and Ethics Committee
KHRC	Kenya Human Rights Commission
MOH	Ministry of Health
PAC	Post Abortion Care
PTSD	Post Traumatic Stress Disorder
RHRA	Reproductive Health and Rights Alliance
SDGs	Sustainable Development Goals
STIs`	Sexually Transmitted Infections
USAID	United States Agency for International Development
WHO	World Health Organization

OPERATIONAL DEFINITION OF TERMS

Abortion: Pregnancy termination before 28 weeks' gestation (according to Kenya National guidelines for quality obstetric and prenatal care)

Holistic Care: Holistic healthcare is complete or total patient care that considers the physical, emotional, social, economic, and spiritual needs of the person, his or her response to illness and the effect of the illness on the ability to meet self-care needs.

Comprehensive Post-Abortion Care: The total physical, social and psychological care and support is given to an individual seeking or being offered post-abortion services as defined by USAID strategic plan and is part of Kenyan guidelines. It has five elements: treatment of complications, counseling to meet emotional needs, offering contraceptive and family planning services to prevent unintended pregnancies, access to reproductive health services, and other health services with appropriate linkage to care. I added a sixth element of spiritual care as it is equally important and also included in the WHO definition of total health.

Quality of Post-Abortion Care: Quality in regards to this research refers to the ability of the two hospitals to offer CPAC to the standards and targets defined in the guidelines and patient satisfaction. Specifically, every woman is treated appropriately for post abortion complications, 100% of women who are emotionally affected receive mental health care, contraceptive uptake needs to meet SDG targets of 66%, other reproductive and health services are offered to all women (100%) who present for care and 100% of the women need a proper referral system and follow-up care. And that most women report satisfaction with care provided.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter highlights what the problem is as highlighted in literature. It starts with what the problem is worldwide, Africa, Kenya then locally in Bomet County which is the study area.

1.2 Background to the Study

According to a WHO report by Ganatra et al, (2017), almost 56 million abortions occur every year worldwide, 99%indeveloping countries.Induced abortion alone accounts for nearly 13% of all global maternal deaths, which is 22,000 deaths from abortion complications every year. A study done by Sedgh, et al, (2016)to look at incidences and trends of abortion globally reported that in Africa, induced abortion was among the top five causes of maternal mortality.This study, however, acknowledged that, due to the illegality of abortion, most cases of induced abortion are unreported or classified under other obstetric diagnoses and these underestimates true numbers of actual cases. The numbers counted and accounted for were mainly from hospital databases which wereeasily affected by human error and did not include women who did not present to hospital for care.Hence the magnitude of the problem could be higher than what is reported.

A nationwide study by Sedgh, et al (2017) estimated that close to half a million abortions occurred in Kenya in 2012 mostly induced and unsafe. Another study done in slums in Nairobi, Kenya that looked at causes of maternal deaths from 2003 to 2005, reported that 31% of maternal deaths during the study period were due to abortion complications (Ziraba, Madise, Mills, Kyobutungi, &Ezeh, 2009).In Kenya, the constitution deems abortion illegal unless the life or health of the mother is in danger (Constitution of

Kenya, 2010). This hasn't stopped the rate of abortion cases, as the numbers are still high and maternal mortality is still a concern. According to a report released in 2013 by the Ministry of Health, Rift Valley Province had the highest abortion rate at 64 induced abortions per 1000 women (Chimaraoke, Elizabeth, Michael, Shukri, &Abdhalah, 2013). Some factors associated with the high prevalence of induced abortions include low contraceptive use, restrictive abortion laws, poverty, ignorance, and illiteracy Chimaraoke, et al,(2013).

Induced abortions seem to occur at alarming rates and women suffer severe morbidities and death. Women often resort to procuring an abortion in unsanitary places with crude methods and with the help of unqualified people. Some women die in the process or seek care from qualified healthcare professionals late when they are facing serious complications (Chimaraoke et al, 2013). For instance, a qualitative study done in Korogocho slums in Nairobi, Kenya reported that almost 68% of respondents who had procured induced abortion did not seek care or if they did, they did not return for follow up. They knew the risks and complications, but for fear of reprisal or stigma from health care workers, they did not seek care even when faced with complications (KRHC & RHRA, 2010). These women are often left to deal with serious psychological problems of guilt, shame, and even depression which may not be addressed well (Astbury-ward & Astbury-ward, 2008). Another qualitative study done by Hussain, et al acknowledged that these women often face stigma from the community and even health workers who are supposed to care for them. Reportedly healthcare workers would rather manage a patient who comes in with a miscarriage than treat a woman who comes in having had an induced abortion (Darabi, 2008; Hussain, 2012b).

In 2008, Kenya among other countries met to discuss the sustainable development goals (SDGs). The goal of SDG 3 is about reducing maternal mortality and improving maternal care by 2030 and states that;

> *"The aim is to reduce the global maternal mortality ratio to less than 70 per 100,000 live births and ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programs" (World Health Organization, 2016;Solberg, 2015).*

In Kenya, the maternal mortality rate is high with the most recent estimate of 488 deaths per 100,000 live births in 2012. This is an average as some marginalized Counties in Kenya recorded as high as 1000 deaths per 100,000 live births (MOH, 2017). For the country to realize the SDG 3 goal, efforts need to be put in place to investigate the causes of maternal deaths whereupon risks can be identified and preventive measures can be implemented.

In Bomet County, a report by Lawrence, (2015) showed that there were significant issues of poverty, illiteracy, and family planning uptake. Uptake of contraceptive use was low at 55% compared to the average in Kenya which is at 67 %. The County has taken steps to address these problems but there has been little attention into the issues of abortion that many women undergo. There has been no data compiled documenting the quality of care provided to them.In 1994, USAID created a post-abortion care model that constituted five elements to comprehensive post-abortion care. The model implemented in some countries including Senegal and Scandinavian countries reported a great improvement to reproductive services offered to women with reduced mortality and

morbidity. Overall, it was noted that comprehensive post-abortion care improved survival in women presenting with post-abortion complications(Curtis, 2007; Suh, 2019). Studies were done in selected areas of Kenya report poor post-abortion care. A qualitative study by APRHC done in Kenya reported poor quality post-abortion care, especially among young people. The elements that constitute comprehensive post-abortion care were not fully covered(Izugbara, 2015). Comprehensive post-abortion care, which needs to be holistic in terms addressing the complications of abortion, family planning use, counseling for emotional problems, and spiritual wellbeing of these women, is often incomplete. Most women are left to deal with psychological trauma by themselves. Studies show an increased risk of mental health problems immediately post-abortion which includes negative emotions, PTSD, anxiety, increase in substance use later, suicide and even depression long-term (Tesfaye &Oljira, 2013) (Coleman, Coyle, Shuping & Rue, 2009).

A qualitative study done by Obengo(2013), indicated that pregnancy stigma and socio-economic pressure were among the main reasons that these women were terminating their pregnancies. In the focus group discussions from the same study, the respondents advised that abortion should not be legalized but the focus should be to find ways to prevent early or unwanted pregnancies and provide proper care and support for those that have suffered from abortion-related complications. The other recommendations were to treat these women with dignity, empower them to make informed choices around their reproductive health and provide adequate treatment of complications of induced abortion.

According to consensus meeting that looked at comprehensive post-abortion care in East Africa, it was noted that most women are not able to access services of comprehensive post-abortion care and those who are able may not be treated adequately, either due to

unqualified health professionals, inadequate medications and facilities or psychosocial stigmata (Cleeve et al, 2016) A study done in Ethiopia showed a reduction in maternal mortality and incidence of induced abortions when comprehensive post-abortion care services were well utilized and readily available even at lower health facilities to women who presented with abortion complications (Prata, Bell, &Gessessew, 2013).

Data derived from statistics departments from the two hospitalsin Bomet County showed that a total of 471 abortion cases were managed in the two facilities in 2018. Some are repeat abortions, which may be an indicator that the post-abortion care services offered need to be looked into. Currentobservation suggests that post-abortion care does not consistently include the complete package defined as comprehensive post-abortion care. Since a defined comprehensive post-abortion care protocol has been established that has changed morbidity and mortality in settings where it has been studied, this study aims to get information on how frequently each of the services is offered and if the women are satisfied with the care they get. This will help define areas for improvement of abortion care services provided in the county and potentially be a vital part of reducing maternal mortality and morbidity.

1.3 Problem Statement

Maternal mortality in Kenya is still very high, especially in rural places where emergency obstetric services are limited. Abortion complications lead to one of the top five causes of maternal mortality in Kenya with an estimated half a million abortions occurring yearly. Those who don’t die from abortion complications often survive with severe morbidity or serious psychological consequences, which can be avoided by reducing the number of abortion cases and proper management of those affected to prevent repeat abortions. From clinical experience, many women still present to our

hospitals with aninduced abortion. The past year alone, the number of women who presented to two hospitals in Bomet County and were treated for abortion complications (both induced and spontaneous) was 471 from the records. If the quality of post abortion care is not provided according to the standards set by the Kenyan guidelines and USAID strategic plan then the rate of maternal mortality will continue to rise.The quality of comprehensive post-abortion care given will help avoid severe maternal morbidity and mortality as well as the incidences of repeat abortions. Offering holistic care not only prevents death but sends a healed woman back to the community. Poor post-abortion care and stigma impair the quality of services provided and overall physical and mental wellbeing of the affected woman. A study done in Ethiopia showed that offering all the elements of comprehensive post-abortion care significantly reduces maternal mortality and the rate of repeat abortions (Prata et al, 2013). The quality of post-abortion care provided to the women in Bomet County is unknown.

1.4 Purpose of the Study

In Bomet County, some women report to health facilities with incomplete unsafe abortions. They often come in with complications and sadly, some end up succumbing to a preventable death. Information on the complications encountered and the quality of post-abortion care received has not been reported. Comprehensive post abortion care is a strategy to reduce death and suffering from the complications of unsafe and spontaneous abortion and comprises five elements: treatment of complications, counseling to meet emotional needs, offering contraceptive and family planning services to prevent unintended pregnancies, reproductive and other health services, and linkage to proper care. Comprehensive post-abortion care is important because it helps patients to recover from complications resulting from miscarriage and induced abortion, reduces the

incidence of repeat unplanned pregnancy, and decreases the incidence of repeat abortion. This should be a vital part of maternal care.

The purpose of this study is to evaluate the compliance ofhospitals in Bomet County in meeting all five elements of comprehensive post-abortion care. CPAC is a defined standard which has the aim of ultimately reducing maternal mortality and morbidity.It can also enhance the quality of life for each woman.

1.5 Broad Objective

To determine the quality of post-abortion care offered to women presenting to two hospitals in Bomet County.

1.5.1 Specific Objectives of the Study

i.i. To find out the sociodemographic characteristics of women receiving post abortion care in Bomet County, Kenya**.**

ii.ii. To determine how often each of the five elements of comprehensive post-abortion care is offered to women attending two referral hospitals in Bomet County**.**

iii.iii. To find out what percentage of women actually received the whole Comprehensive Post abortion package**.**

iv.iv. To establishthe level of satisfaction by the women of the Comprehensive post-abortion package offered to them.

1.6 Research Question

What is the quality of post-abortion care offered to women presenting to two hospitals in Bomet County?

1.7 **Significance of the Study**

Most studies addressing this topic have been done in urban areas and the nearby slum settlements and no published study on the quality of post abortion care has been reported in Bomet County.This study will add to preexisting literature on the quality of post abortion care.

The extent to which Comprehensive post-abortion care is provided is currently unknown and no published study has looked at CPAC package as a whole. The study will help healthcare workers review the gaps in the post-abortion care package given to women presenting to our facilities with abortion complications and inform areas of improvement and change with the aim of improving maternal care and reducing maternal mortality.

The results and recommendations of this study shall also help influence policies regarding management of post abortion complications with the aim of reducing the burden of maternal mortality and morbidity related to abortion.

1.8 Scope of the Study

According to KDHS report in 2013, Bomet County had an estimated population of 861,394 people. Of those, women of reproductive age group 15-49 years were 191,593 women, comprising 22% of the total population. It is a rural community whose major source of income is farming. This study focused on women aged 15-49 years presenting to the two major referral facilities in Bomet County with abortion complications. These two hospitals are the main referral facilities in the county; hence, they see the majority of abortion sequelae. The facilities have the facilities and capacity to offer comprehensive emergency obstetric care and have qualified staff.

1.9 **Study Limitations**

Induced abortion in Kenya is illegal. In Bomet County, women who induce abortion are shunned by the community and labeled immoral. Since abortion is a taboo topic in this culture and it is illegal in Kenya, some women were uncomfortable disclosing some information, especially on the question inquiring how they lost the pregnancy. 5 respondents chose to leave it blank and were not coerced to reveal that information. Those interview guides were not discarded as the information was part of socio-demographic data and letter X was used to denote the missing responses. Apart from that one question, the rest of the interview guides were filled well.

The study was done in the only two referral centers in the County. The quality of care offered in the lower level Sub County hospitals was missed. The assumption is the quality of care offered in two hospitals will give a good representation of what is offered in the County as the two hospitals are referral centers with qualified staff and ability to offer comprehensive care. Any recommendations or knowledge translation from this study will be applied to all hospital levels within the County.

Those who could not speak any of the three languages, English, Swahili and Kipsigis were excluded. The majority of women even from other tribes could speak one or two of the languages so there was no bias since a majority of the populations was captured.

1.9. 1 Delimitations of the Study

All women who presented with abortion were presented with the interview guide irrespective whether it was spontaneous or induced. On engaging these women about the study, it was emphasized these questions are being asked of all women who have lost their pregnancies and this will help reduce the feeling of stigmatization. The aim of the study was not to find out if the pregnancy loss was induced or spontaneous, but if proper

care was given. All women were assured of the confidentiality of the information they provide and that there was no governmental affiliation or reporting of any details. They were not implicated for any crime and their care was not affected. This helped the women feel comfortable enough to give the information.

Any policies or recommendations derived from the study will trickle down to the lower level hospitals to effect change

The limitation of the study to the three languages did not create bias since a majority of women could speak either of the three languages even if they were from a different tribe

1.10 Assumptions of the Study

The assumption of this study is,

i. Women who participated in the study gave true information concerning the post abortion care.
ii. The quality of care offered in two major hospitals will give a good representation of what is generally offered in the County Hospitals.

CHAPTER TWO

LITERATURE REVIEW

2.1 **Introduction**

Generally, there is a lot in the literature concerning the complications of abortion and the quality of post-abortion care give to women around the world. Some of the studies done in Kenya around this topic are mostly qualitative studies in the urban areas and close by slum settlements.

2.2 **General Overview of Literature**

Epidemiology on abortion

Unsafe abortion is defined as a procedure for terminating a pregnancy by persons lacking necessary skills, performed in an unsanitary environment, or both (Ahman& Shah, 2011). The Kenyan constitution does not permit abortion unless the life of the mother is in danger or she requires emergency treatment and this decision should be made by a qualified healthcare professional (Government of Kenya, 2010).

The epidemiology of abortion burden shows that 13% of all global maternal deaths are due to induced abortionwith an estimation of almost 56 million abortions occurring every year worldwide(Ganatra et al, 2017).A study done to look at incidences and trends of abortion globally reported that in Africa, induced abortion was among the top five causes of maternal mortality Sedgh et al, (2016). Deaths from abortion complications claim almost 22,000 women annually in developing countries (Ahman& Shah, 2011; WHO, 2014). In Eastern Africa, 25% of women who die from pregnancy-related problems is due to unsafe induced abortion. A nationwide study by Sedgh et al, (2017) which looked at hospital records nationwide estimated that close to half a million abortions occurred in Kenya in 2012 and this mostly occurred in women younger than 25 years of age. According to a report released in 2013 by the Ministry of Health, Rift valley province, of

which Bomet County is part, had the highest abortion rate at 64 induced abortions per 1000 women (Chimaraoke et al, 2013). Results from a qualitative study released in 2015, Bomet Adolescent and Youth County Survey, noted that abortion was among the top ten health issues affecting young people in Bomet County (Lawrence, 2015).

This shows that abortion is still a huge burden on Kenyan healthcare and a significant contributor of maternal mortality which is already high if compared to the SDG target.

Literature on comprehensive post abortion care

Most studies done in Kenya and outside Kenya look at some elements of post abortion care but not CPAC as a package. Most of them are qualitative studies which are good at getting the views from the women getting the care. No quantitative study in literature looks at the quality of care according to CPAC. For instance, a study done in Tanzania in 2011 looked at the complications women with abortions encountered, comparing rural vs urban areas. Rural women often used crude, dangerous methods to procure abortion which in turn resulted in severe complications compared to their urban counterparts. The study also showed that access to care was better among women from urban population due to affordability and accessibility of health facilities. This study only looked at the immediate complications of abortion, access to care and compared the two complications which falls under the element of linkage to care and emergency care. The long-term effects of abortion, including mental health problems, emotional care and availability of family planning was not addressed as the study only looked at the physical complications (Rasch &Kipingili, 2009). Other complications highlighted in several studies include severe bleeding, uterine perforations, mental trauma and death. One case report described a 13-year-old who used a wooden stick inserted into the uterus to procure an abortion. The study highlighted the need for education and women empowerment to

break the vicious cycle of illiteracy, poverty and provision of effective contraception (Nkwabong, Mbu, & Fomulu, 2014; Oranu & Orazulike, 2015).

In Kenya, factors associated with the high prevalence of induced abortions include low contraceptive use, restrictive abortion laws, poverty, ignorance, lack of educations, and illiteracy (Chimaraoke et al,2013). Another nationwide study done to look at the complications of induced abortion;reported that almost 75% of women presenting to health facilities with abortions presented to health facilities with moderate to severe complications. Those who had clandestine abortions and those who presented late for care, that is more than 6 hours from onset of symptoms had more complications. The study highlights notingsubstandard post-abortion care. Most of these women were managed using manual vacuum evacuation the rest by either misoprostol or finger evacuation which was poorly done (Ziraba et al, 2015). The method used to procure an abortion, the complications encountered, the care given and the social support the woman receives determines if she lives a normal life or dies (Rasch &Kipingili, 2009). Multiple studies show why women get abortions, how they procure abortions and what complications they encounter both short term and long-term.

Another study done in Kenya to look at women's perspectives on abortion showed that most women who sought abortion were below 25 years of age. Complications encountered ranged from physical complications to mental trauma. The physical complications encountered were: bleeding, genital trauma or trauma to reproductive organs with severe consequences, sepsis, unintended pregnancies, and repeat abortions. Qualitative studies report poor post abortion care in most places, and health providers are reported to even use digital (finger) evacuation of the uterus without pain medications. Stigma from society and healthcare workers have negative effects on these women,

forcing them to seek care from unqualified persons often with tragic sequelae (Yegon, Kabanya, Echoka, &Osur, 2016b; Hussain, 2012).

Long-term effects of abortion are barely looked at in most studies. The biopsychosocial model which is holistic care aims to ensure that when a human suffers a physical ailment or trauma, both the emotional, spiritual, social areas are affected too. Comprehensive post abortion care seeks to provide total healing of the affected women by providing holistic care when all the elements are provided in the same setup. Apart from death and the known physical complications of induced abortion, a woman suffers some degree of psychological trauma which can lead to mental and emotional problems which are seldom reviewed or treated. Most studies only look at the physical trauma the woman undergoes and forget the effect of abortion on the whole person (Astbury-ward & Astbury-ward, 2008).

A qualitative study by APRHC done in Kenya reported poor quality post-abortion care, especially to young people. The elements that constitute comprehensive post-abortion care were not fully covered (Izugbara, Egesa, Kabiru, &Sidze, 2017). The quality of comprehensive post-abortion care (which needs to be holistic in terms addressing the complications of abortion, family planning use, counseling for emotional problems, and spiritual wellbeing of these women) is often incomplete. Most women are left to deal with psychological trauma by themselves. Studies show an increased risk of mental health problems immediately post-abortion which includes negative emotions, PTSD, anxiety, increase in substance use later, suicide, and depression long-term (Coleman, 2011; Tesfaye &Oljira, 2013). Another qualitative study done in Uganda reported that most young women presenting to hospitals faced stigma, poor care and mistreatment from health care workers. One of the respondents who is a healthcare worker reported

that they would rather treat a mother who came in with a spontaneous miscarriage than those who come with induced abortion (Darabi, et al, 2008).

Most of the affected women experience certain barriers to accessing care. For instance, several qualitative studies have been done that show that stigma from healthcare personnel drives these women to not seek help or timely care. This increases the complications encountered including death (Izugbara, Egesa, &Okelo, 2015; Yegon, Kabanya, Echoka, &Osur, 2016a). Other factors that determine access to care are the educational background of the woman, social status, fertility intentions, age, and referral process. Proper access to quality sexual and reproductive health information and services is a key solution to helping these women (Michael M. Mutua, Maina, Achia, &Izugbara, 2015).

Findings in Kenyatta Hospital in a thesis report from a University of Nairobi repository by Doreen(2010) noted that almost 40% of women presenting with abortion had induced abortion. The most common complication encountered was hemorrhage at 60%; sepsis and uterine perforation were the second most common complications. 2% of women who presented in the study period died from these complications. Most women had more than one complication. The quality of care given has been found to vary depending on the age of the client, social status, level of education and the desire or need for contraceptives. Younger women are treated poorly and were not provided with contraceptives or its knowledge compared to their older counterparts. Studies also show that women fear seeking care because they will be stigmatized, tested for HIV, or their secrets will be exposed (Aantjes, Gilmoor, Syurina, &Crankshaw, 2018; EVENS et al., 2013; Maina, Mutua, &Sidze, 2015).

From the above studies, the quality of comprehensive post-abortion care provided in healthcare facilities was inadequate, especially from the affected woman's perspective**.**

Most women had more than one complication from abortion. Methods used to procure abortion were often not recorded and the psychological trauma was not documented.From the above review, complications of abortion and the quality of post-abortion care provided vary according to the age of the affected woman, geographical area, rural vs. urban, social status, level of education, and ease of access to post-abortion care services and reproductive health education.

The Ministry of Health of Kenya has developed guidelines on post-abortion care that look at five elements of care that are to be included when treating a woman presenting with abortion complications. These include treatment of incomplete abortion and its complications, provision of contraceptive and family planning services (which helps to prevent further unintended pregnancies and repeat abortions), counseling to meet the emotional support the women needs, referrals/linkages to reproductive and other health services if not available at the facility, and community and service provider partnerships, which involve the community by community health education and mobilization to combat unsafe abortion, increase access to and quality of post-abortion care (Cleeve, et al,2016; Michael Mbithi Mutua, Manderson, Musenge, &Achia, 2018). This helps to improve women's reproductive health and lives. In addition to this, the introduction of holistic care which covers the above plus spiritual wellbeing and ensures the woman can safely and confidently get back into the community without facing stigma.

Some studies have attempted to look at the quality of post abortion care but they are mostly qualitative studies. No quantitative study in Kenya has shown the quality of CPAC offered in terms of how frequently each of the five elements is offered, where the gaps are and actually how many women receive the full CPAC package as stipulated in the guidelines.

1.3 Conceptual Framework

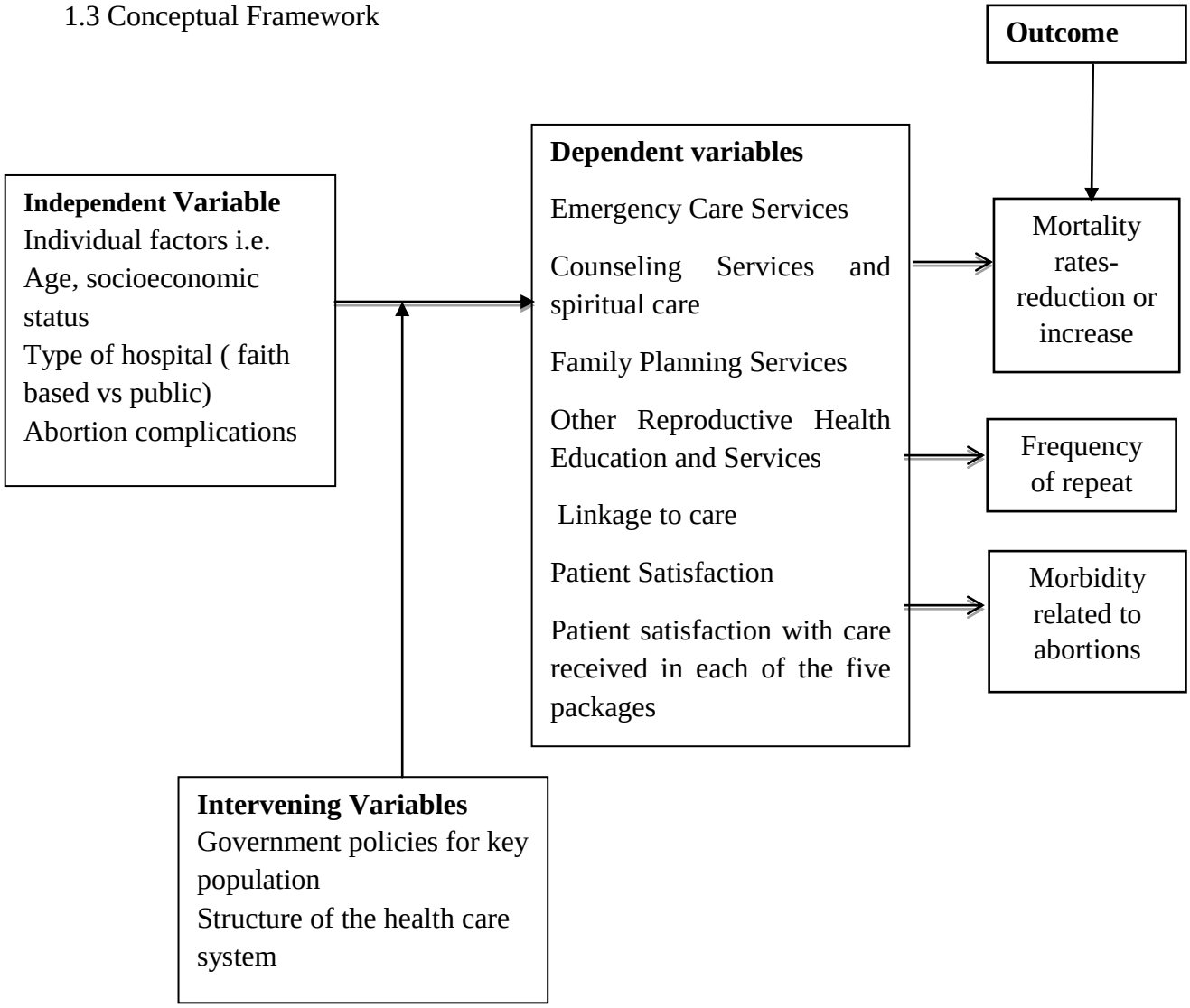

Figure 1: Conceptual Framework

2.4 Summary

Quality of post abortion care was as defined by the USAID post-abortion care model, has five aspects that should be offered to women presenting for care at bare minimum. Literature highlights variations on the quality of care depending on age, facility status and even the type of abortion whether induced or spontaneous. How well these five factors are offered coupled with patient satisfaction determines the outcome and that is if there will be a change in maternal mortality rate, repeat abortion rates and the severity of morbidity encountered. (Banerjee & Andersen, 2012; Curtis, 2007).

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter highlights the research design, study populations and how the sample size was calculated. It also has complete details on how the data was collected, handled and stored and ethical problems encountered by the study.

3.2 Research Design

A cross-sectionalstudy on the quality of post-abortion care given to women presenting to two hospitals in Bomet County.

3.3 Location of the Study

The study wasconducted in two referral hospitals in Bomet County. Tenwek Mission hospital, a level 5B faith-based facilitysituated in Bomet County. Longisa County referral hospital, a level 4 County referral hospital in Bomet County.

These two hospitals are capable of offering quality emergency obstetric care as they have the equipment and qualified personnel.The other hospitals in the County are level one and two hence refer most patients to the two hospitals.

3.4 Study Population

All women of reproductive age presenting to the two hospitals due to abortion-related complications during the study period. This is irrespective of whether the abortion was induced or occurred spontaneously.

3.5 Sampling Procedure and Sample Size

3.5.1 Sampling Technique

The two hospitals were purposely selected and all women who presented to the two hospitals with post-abortion complications were consecutively recruited at the point of discharge.All post-abortion patients discharged from the two facilities were consecutively included in the study until the required sample size was achieved. This sampling technique is what is recommended and commonly used in studies done around this topic(Tesfaye & Oljira, 2013a). Half the sample size came from the government facility and the other half from the faith-based facility.

3.5.2 Sample Size

Hospital records from the two hospitals in Bomet County indicated a total of 471 abortions in the year 2018.There was no clear difference between those induced abortions versus spontaneous miscarriages in the records.Public facility County referral hospital had a record of 205 cases of abortion managed in the obstetrics ward. This was retrieved by counting manually from the discharge records. The faith-based facility Hospitals recorded a total of 266 cases in 2018 as per the electronic medical records.According to the records in one of the hospitals, there were some months with the higher numbers of reported abortions compared to other months. From clinical experience, abortion cases in Bomet County vary with every month. Most abortion cases are seen after major holidays and a few weeks after schools close with peak months being in December and April. The numbers change from year to year and from one month to the other.

This then means that the incidence of abortion follows a Poisson distribution, which is the distribution of rare events in a large population. It is based on probability distribution

showing the likely number of times that an event will occur within a specified period.Therefore, the sample size was determined using a sampling formula described by Nassiuma(2000), which is used for populations whose underlying distribution is unknown.The sample size is based on the coefficient of variation proposed by Nassiuma (2000).

$$n = \frac{NC^2}{C^2 + (N-1)e^2}$$

Where: ***n***= sample size, N = population size; 471

C = coefficient of variation; 20%≤C≤30%,

e = error margin; 0.02≤e≤0.05.

Substituting these values in the equation, the estimated sample size (n) is:

$$n = \frac{471(0.3)^2}{0.3^2 + (471-1)(0.03)^2}$$

The sample size is 83

A total of 100 interview guides were collected to cover for deficiencies in the margin of error. The study was conducted in the three months and all women who presented with pregnancy loss wererecruited. (The sample size of 83 from the calculation was the minimum number to be surveyed). A total of 100 surveys were issued and all filled out.

Inclusion criteria

All women who presented to the two hospitals due to abortion-related complications.

Those who could speak English, Kiswahili or Kipsigis languages. The three languages were chosen due to the feasibility of doing the study because getting a research assistant who was well versed in the other languages wasimpossible. The three hospitals also see women from neighboring counties from tribes such as Maasai, Somali, and Kisii but

Kipsigis speaking respondents are the majority. If any of the women from other tribes could speak English or Kiswahili they were included in the study. This helped capture a majority of the women from this region.

Exclusion criteria

Those who were unable to participate due to illness, either because they were too emotionally disturbed or too sick to participate.

3.6 Data Collection Procedures.

Two research assistants were recruited and trained to familiarize with the interview guide and the objectives of the study. For the faith-based facility hospital, A female research assistantwas recruited and was someone who was not directly involved with the care of these women. The interview wasconducted in a secure, safe and comfortable to enable the respondents to feel comfortable. The interviewer was fluent in English, Swahili and Kipsigis languages as the interview guidewas translated into these three languages.

In the Public facility, a female nurse(from another department) who was not directly involved in the patient's care was engaged and trained. She was fluent in English, Swahili and Kipsigis as the interview guidewas translated into these three languages. There was a consent form for those aged 18 years and above and an assent form for the emancipated minors from age 17 years and below that was attached to the interview guide and translated into the three languages. A pretested interview guidewas used.

Questions in the interview guide covered socio-demographic characteristics, the pregnancy history and each of the elements of the comprehensive care package received. The interview guide also had6-pointLikert scale questions which were used to measure

the level of satisfaction of each of the five elements of care received. The reason a six-pointLikert scale was used is to omit the neutral response.

There was a part of the interview guide that was looking at the emergency care services received and the complications encountered by these women. The research assistant filled the two parts directly from patient charts. This is because most women did not understand the type of care they received on the list. If any of the services on the list were not charted in patient's files, the assumption is that they were not offered. The patient's hospital identification number or names were not recorded on the interview guides. The interview guide was translated into three languages and stapled together so that the respondent could choose which language to use. Due to the sensitivity of the topic, our goal was to keep the time brief and the questions straightforward to avoid building anxiety in the participants. The language used was simple so that the majority of participants could understand.

The interview guides were delivered sealed to the research assistants. There was a box to deposit the finished interview guides, which was locked and sealed so as no one could retrieve the interview guides to trace them back to the respondent or make any changes.

The respondents were approached just before discharge when they are physically, mentally and emotionally ready to participate in the study. They filled the interview guides in a safe room within the hospital with the help of research assistants. For consistency, the same two research assistants in the two hospitals were the ones who issued the interview guide for the women in the study period.

There was a written consent/assent, which was in the three languages. The interviewer explained the consent verbally and in detail in a safe room, then, after the woman agreed, she signed the written consent. An interview guide with closed-ended and Likert scale questions was then presented to the respondent. It had all the three language translations

stapled together so that the respondent could choose which language to use. The interviewer read the questions to the respondent and she was shown where to mark the responses. Information on complications encountered and other services offered were retrieved from patient files by the interviewer for completion of the interview guide. This is because some respondents did not know what medical services they received. No names appeared on the interview guide. Information obtained wastreated with utter confidentiality, no key identifiers of the participants were on the interview guide and they were kept safely after interviews.

3.61 Pretesting of the Interview Guide

The interview guide was reviewed by my supervisors, a total of 4, who helped me pull out some insensitive questions. There was a layperson thatis not in the medical profession look at the interview guide. She is a trained English and Kiswahili teacher who also speaks Kipsigis. She helped review the interview guide and made changes to a simple language and omitted the medical terms that she could not understand. She translated the interview guide to English to Kiswahili and Kipsigis then back-translated it. Errors were reviewed and corrected. The interview guide was then pretested on eight participants, who met the inclusive criteria. This was done in one of the facilitiesafter IREC approval. Two nursing students were recruited and trained on the interview process. They were advised to put a star on questions that the respondents were not comfortable with. They followed the standard operating procedures as noted above for the main study. Eight patients were recruited (interview guides were issued) for the pilot study which constitutes a volume of 10% of my projected sample size.

After cleaning up the interview guide, it was translated into three languages by the same teacher who helped review the interview guide.The results from the pilot study were not be used as part of data analysis and there is no intention to publish it. The pilot study

aimed to help me gauge the feasibility of doing the study, costs involved and help clean up the interview guide.

3.6.2 Validity of the Instrument

3.6.2.1 Internal Validity

I pre-tested the interview guide on 8 women, which is 10% of the sample size (Johanson& Brooks, 2010) who had presented to the hospital with any pregnancy loss less than 28 weeks gestation. At the point of discharge, they were asked to fill the interview guide. For internal validity, their answers were compared to chart reviews. The rule of thumb was if it was recorded in the chart reviews then the service was offered, if not recorded, it wasn't offered. Insensitive questions were rephrased.

3.6.2.2 Content Validity

The questions from the interview guide were constructed directly from the elements covered by the conceptual framework. The interview guide ensured that each of the elements of comprehensive post-abortion care was represented. This was reviewed by my supervisors and a checklist to ensure nothing was missed.

3.63 Reliability of Instrument

For reliability, the interview guide was offered to eight women during the pretesting period. These were women who had suffered a pregnancy loss less than 28 weeks and at the point of discharge were issued with the interview guide by the research assistants. Then chart reviews were compared to the answers these women picked. Reliability was determined by calculatingthe Cronbach's alpha on excel. Similar matching responses were coded 1 and unmatched responses coded 0.

Using the Cronbach's Alpha Formula

$$\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N-1) \cdot \bar{c}}$$

Where:

N = the number of items.

c̄ = average covariance between item-pairs.

- v = average variance.

The value Cronbach's alpha as calculated in excel was 0.888 which confirmed acceptable reliability of the interview guide. Hence approving internal consistency of the interview guide (Mondal & Mondal, 2017).

3.7 Data Analysis

Data collected was coded and transferred to SPSS software version 20.Since research questions were used to meet the objectives and was not testing a hypothesis, data analysis was presented using descriptive statistics such as means, frequencies and percentages. Chi square tests and odds ratios were used to determine statistical significance of some aspects with a p value of < 0.05. Likert scales were treated as ordinal data. It was analyzed using chi square tests to determine if the level of satisfaction was statistically significant. Calculations were also made to determine if satisfaction levels varied between the two facilities and with age. A p value of <0.05 was used to determine significance levels.

3.8 Ethical Considerations

Permission to do the study was sought from the two hospitals from the IREC committee and alsoKabarak University IREC approved the study.Since the study included emancipated minors under the age of 18, assent was sought from the minors and guardians but the guardians were not included when answering interview guides, and the

information the minors gave, unless life-threatening, were not disclosed to the guardians unless the minor agreed to it. This rule was disclosed to the guardian and the minor before she/ he signed the assent.Participation was voluntary.The respondents had a consent/assent which ensured that the respondents understood that;

i. There was complete anonymity
ii. No patient names, admission numbers or key identifiers appeared on the interview guides.
iii. No identifiers on the interview guides to trace back the interview guide to the patient.
iv. The respondents were allowed to withdraw from the study at any point without any reproof and care was not be affected even when they refused to participate in the study
v. The principal investigator did not have any contact with potential participants
    a. This approach aimed to minimize potential emotional and psychological harm to the participants. Participation in the study was voluntary without coercion and no incentive or pay was issued. The respondent had this information before signing the consent.Those excluded from the study were referred back to the doctor managing them for proper care and support.This study was done within three months between January and March of 2020.

Legal implications

The aim of this study was not to identify if abortion was criminal or spontaneous. Every woman with abortion complications and gave consent was included in the study. Unless the life of another person was in danger and this was discovered during the interview process, there were no legal consequences. If a life of another was at risk, the hospital

administration was contacted to give a proper direction on how to go about it.Minors below 18years were included in the study since previous studies indicate discrepancies in care based on age. Not including those means, I will lose very valuable information in this age group. The guardian gave consent, the minor assent but the guardians were not included in the study. Any information from the minor wasnot disclosed to the guardian unless the participant permitted. No legal issues arose during the study. Participation was voluntary without coercion or incentives.

Data handling

The filled interview guides werestoredin a sealed box with a lock so that they cannot be retrieved and traced back to the patient. This ensured that no one tampered with or changed the already filled interview guides.The filled interview guides were only available to the researcher, supervisors and statistician if need be. After analysis, the interview guides will be stored in a safe place under lock and key for a minimum of 10 years or until the University archivist give the go-ahead to discard the data by shredding and burning.The researcher shall ensure that the results from the study shall be availed to the hospitals for feedback and help change management protocols and policies.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction

This chapter highlights the findings from the study. Data analysis and results are explained in detail and their significance to the study. The findings are grouped according to the five elements of the Comprehensive post abortion care package and if any correlations between them.

The chapter seeks to state the findings of the following objectives;

1. To find out the sociodemographic characteristics of women receiving post abortion care in Bomet County, Kenya
2. To determine how often each of the five elements of comprehensive post-abortion care
3. (CPAC) is offered to women attending the tworeferral hospitals in Bomet County.
4. To find out how many women actually received the full CPAC package
5. To establish the level of satisfaction of these women of the Comprehensive post-abortion package offered to them in the two hospitals.

4.1 General and Demographic Information

4.1.1 General Information

One hundred (100) interview guides were distributed on an equal ratio for the respondents in both hospitals; faith-based facility (50) and public facility (50).All the 100 were all filled out during the three months of data collection. Those who were uncomfortable to participate in the study were not included and are not among the 100 filled out interview guides. There were only five minors in the study and no legal issues

arose during the interviews and assent was obtained before the interview process.The sample size was 100 which equaled to 67% of the total admissions that presented for care during the study period.

4.1.2 Socio Demographic Data

Table 1: Demographic Distribution of Respondents

Socio-demographic Data		**Frequency (%); N=100**
Age	Below 18 years	5
	18-29	61
	30-39	32
	Above 40	2
	Total	**100**
Marital Status	Single	34
	Married	63
	Divorced	2
	Separated	1
	Total	**100**
Level of Education	None	2
	Primary	43
	Secondary	32
	College/University	23
	Total	**100**
Source of Income	Formal Employment	18
	Business (Jua Kali)	45
	Family Support	15
	None	19
	X	3
	Total	**100**

Most women who were surveyed and presented for post abortion care in the two hospitals were between ages 18-29 years accounting for 61% of the population. The mean age was 26.6 years with a range between 16 to 42 years. Only 5 of the respondents surveyed were minors. Of these majority of women were married accounting for 63% followed by single women at 34% and the rest were either separated or divorced. On Education level, 43% of the women reported to have only attained a primary level education, 32% secondary level and 23% a university level education. 2 women reported

not having any form of formal education. Of note, those above collage level education are the ones who accounted for those in formal employment in comparison to the rest. On source of employment, a majority of the women (45%) depended on juakali (small scale business) for daily survival and only 18 % had formal employment. The rest either dependent on family support because of unemployment, which accounted for 34%.

4.1.3 Pregnancy Histories of the Respondents

Table 2: Data on Pregnancy Characteristics

Pregnancy History		**Frequency**	**Percentage %**
Gestation Age	1st trimester loss	63	63
	2nd trimester loss	34	34
	Unknown gestation	3	3
Planned Pregnancy	YES	43	43.4
	NO	56	56.6
History of Previous Pregnancy Loss	YES	29	29
	NO	70	70
	Missing (X)	1	1

From Table 2, most of the pregnancy losses were first trimester abortions with a percentage of 63%, second trimester abortions were at 34 % and 3 women did not know their gestation age at the time of the loss. Slightly over half (56.6%) of the pregnancies were unplanned and from further analysis, a significant percentage of the unplanned pregnancies were from unmarried women between ages 18-29 years and all the minors did not plan to get pregnant. 29% of the women also reported having a previous abortion**.**

Table 3: Age in Relation to How Pregnancy Was Lost

		How did you lose this pregnancy?					
		Was Assaulted	Used some pills	Used Unknown Medication	Spontaneous Bleeding and Pain	Other	Missing
Age of Respondents	Below 18 years	0	3	0	1	0	1
	18-29	3	11	3	42	0	4
	30-39	0	2	0	26	2	0
	Above 40	0	0	0	2	0	0
Total		**3**	**16**	**3**	**71**	**2**	**5**

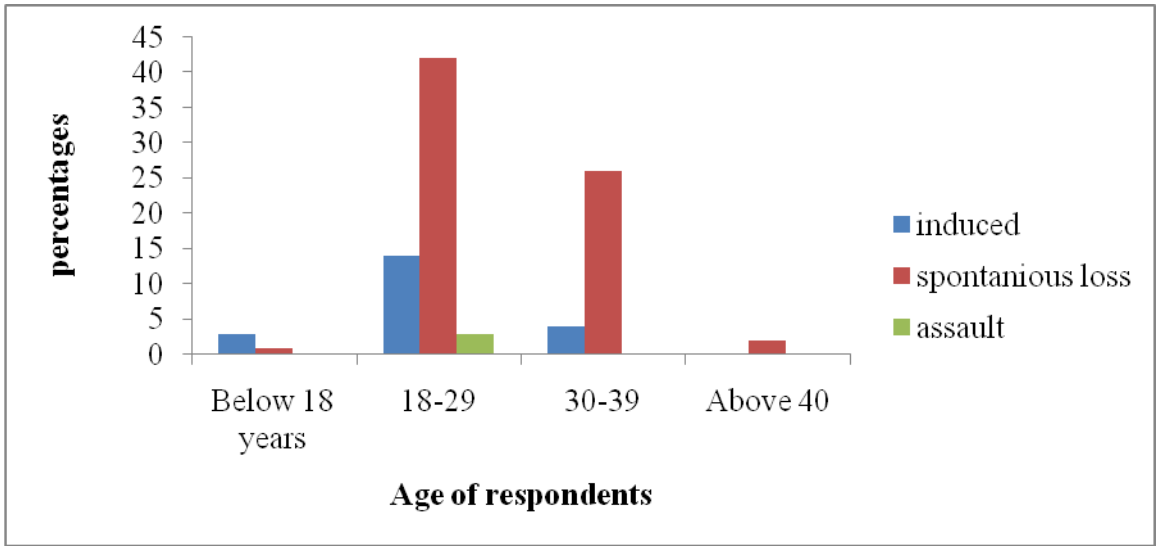

Figure 2 : Age in Relation to How the Pregnancy Was Lost

From Table 3, and figure 2,analysis on how the pregnancies were lost, various responses were placed to try deduce if the losses were induced or just an unfortunate miscarriage. of the five, 4 were single and below 24 years of age. Only 1 was married and above 25 years. From clinical experience, those who used pills, unknown medication and the missing responses had an induced abortion while those who just had a spontaneous loss were miscarriages. The assault cases could be attributed to intimate partner violence or a person known to them and that led to trauma and pregnancy loss though this was

notspecific. From this deduction, it can be concluded thataccording to the graph 71% of the losses were spontaneous abortions while 26% were induced and 3 respondents lost the pregnancy due to trauma from assault.

In relation to age, it is evident that majority of respondents below the age of 18 had an induced abortion, those between the ages of 18 and 29 mostly lost their pregnancy through spontaneous bleeding as evidenced by a high frequency of 42, while 17 of the women, highest rate in the age groups had an induced abortion. It is also noted that only women of this age reported losing the pregnancy due to assault. Few women above age 30 had an induced abortion and none were noted above age 40.In most of the induced abortions, the majority of patients surveyed had access to some pills that were used to induce an abortion.

4.1.4 Emergency Services

Table 4: Time Taken to Access Care in Relation to Complications

Complications encountered	**Time taken to access care**		
	<24hrs	**> 24 hrs.**	**> 1 week**
Bleeding only	7	3	0
Severe Abdominal Pain only	1	3	0
Sepsis/Infection	1	0	1
Intestinal Injuries	0	1	0
Genital Trauma	0	0	1
More than 2 symptoms e.g. Bleeding and Abdominal Pain	21	48	13
Total	**30**	**55**	**15**

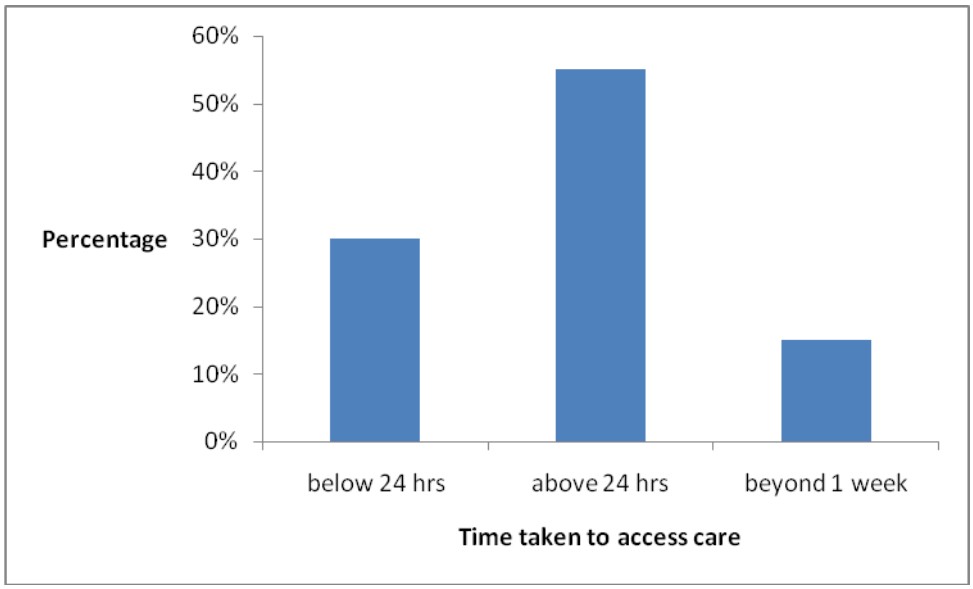

Figure 3: Time Taken to Access Care

Table 4 and figure 3 indicate that most of the respondents (55%) accessed healthcare after more than 24 hours from the onset of symptoms despite obvious complications. 30% of patient accessed care in less than 24 hours and 15 respondents (15%) accessed care after 1 week. Most patients experienced bleeding and abdominal cramping as their first symptom but despite that, they still took long to either seek care or access care. This indicates that generally most patients even with complications still were unable to access potential lifesaving care services on time.

Table 5: Emergency Services Offered to Patients

Emergency Service	Faith based facility	Public facility	Total
Vital Signs Checked	45	50	95
Evacuation Using Misoprostol	37	4	41
MVA Dilation and Curettage	7	41	48
Antibiotics	8	11	19
Intravenous Fluids	12	31	43
Blood Transfusion	24	38	62
Pain Management	10	22	32

Results from Table 5 show that; up to 89% of the patients, presented with incomplete abortions needing evacuation. According to the patients we surveyed, on further

analysis,the faith-based facility mostly used medical management for evacuation using misoprostol while the public facility used manual vacuum aspiration or dilatation and curettage. The demand for blood transfusion was high with 62% of patients requiring the lifesaving blood transfusion and this could be attributed to the late presentation for care where majority of women presented after 24 hours even when they were bleeding.Despite majority of these women reporting pain at presentation represented by 83% in (table 4), only 32% objectively received any form of pain management.

Table 6: Age in Relation to Patient Satisfaction upon Presenting to the Hospital

Age		Patient Satisfaction				P Value
		Extremely Satisfied	Satisfied	Dissatisfied	Extremely Dissatisfied	
	Below 24 years	15	24	0	0	
	Above 25 years	28	29	2	2	< 0.00001
	Total	**43**	**53**	**2**	**2**	
P value showing relationship between satisfaction and age or type of hospital			0.187			

From Table 6, it is evident that majority of the patients were generally satisfied with the care they received from the two hospitals upon presentation as depicted by the high frequency of 96 (Extremely Satisfied-43; Satisfied-53). Only 4 respondents were dissatisfied with the care from the two hospitals. With specific relation to the ages, it is evident that the 3 cases of dissatisfaction were witnessed among individuals above age 25years.

Upon analysis: A Pearson's chi square of independence was calculated 95% confidence interval showed that the satisfaction levels with emergency care provided were highly statistically significant with a P value < 0.00001.

Analysis comparing if satisfaction levels were different depending on age and the type of facility the patients were managed in. A p-value was 0.187 at 95% confidence interval was not statistically significant. This infers that generally, patient's satisfaction with care provided did not vary between the different age groups neither with the facility of management.

4.1.5 Counseling Services and Spiritual Care

Table 7: Feelings Experienced by Patients

	Frequency
Felt Worthless	18
Sad	28
Guilt	43
Shame	45
Grief	42
Relief	10
More than two feelings	73

From the table above, it is evident that after the abortion, most patients experienced more than two feelings; either, feeling worthless and grief, shame and feelings of judgment or feelings of guilt and shame as evidenced by 73% (73 respondents from the questionnaires). This was followed by feelings of shame, guilt, grief, sadness and feeling worthless represented by 45%, 43%, and 42%, 28% and 18% respectively. This is evident that these women deal with some form of emotional distress which directly impacts their mental health.

Table 8: Provision of Emotional and Spiritual Care in the Two Facilities

Service	**Yes**	**No**	**Missing responses**
Emotional care	66	29	5
Spiritual care	69	29	2

From Table 8, results show that only 66 respondents reported to have received any form of mental health care from the two hospitals, despite all the patients reporting they had been emotionally affected by the pregnancy loss. On spiritual care 69 respondents reported to receive spiritual care.

Table 9: Reception of Spiritual Care during Hospital Care in Relation to Helpfulness of Received Spiritual Care in Individual Hospitals

Emotional care and spiritual care		Satisfaction with the service			Likert scale P value
		Extremely Helpful	Helpful	Unhelpful	
Did you receive any counseling for your feelings?	Yes	24	40	1	
Did you receive any Spiritual Care during Hospital Stay?	Yes	32	36	1	0.0021
	Total	57	76	2	
P value showing relationship between satisfaction and age or type of hospital			0.083		

From Table 9, it is evident that out of 69 patients who received spiritual care and 65 patients who got counseling for their feelings; it is evident that most the patients in both hospitals found the spiritual care received very helpful. Only 2 patients found either of the services to be unhelpful.

Upon analysis: A Pearson's chi square test of independence was calculated 95% confidence interval showed that the satisfaction levels with spiritual care and counseling were highly statistically significant P value < 0.002 indicating that generally the participants were satisfied with the services they received.

Analysis comparing if satisfaction levels were different depending on age and the type of facility the patients were managed in. A p-value was 0.083 at 95% confidence interval was not statistically significant. This infers that generally, patient's satisfaction with care

provided did not vary between the different age groups neither with the facility of management.

4.1.6 Access to Family Planning Services

Table 10: Provision of Family Planning Services

Which Hospital (Tenwek or Longisa)			Education on different Family Planning Types		Total
			Yes	No	
Tenwek	Age of Respondents	Below 24 years	4	14	18
		Above 24 years	18	14	32
	Total		22	28	50
Longisa	Age of Respondents	Below 24 years	10	11	21
		Above 24 years	14	15	29
	Total		24	26	50
Total	Age of Respondents	Below 24 years	14	25	39
		Above 24 years	32	29	61
	Total		**46**	**54**	**100**

Table 11: Family Planning Provision According to Age Groups and Facility Type

Facility	Age Groups	% of Those Offered a Contraceptive	Odds Ratio at 95% Confidence Interval	P Value
Faith based	Below 24 years	22%	0.22	0.02
	Above 25 years	56%	(0.06 ,0.83)	
Public facility	Below 24 years	45%	0.97	0.96
	Above 25 years	48%	(0.32 ,3)	

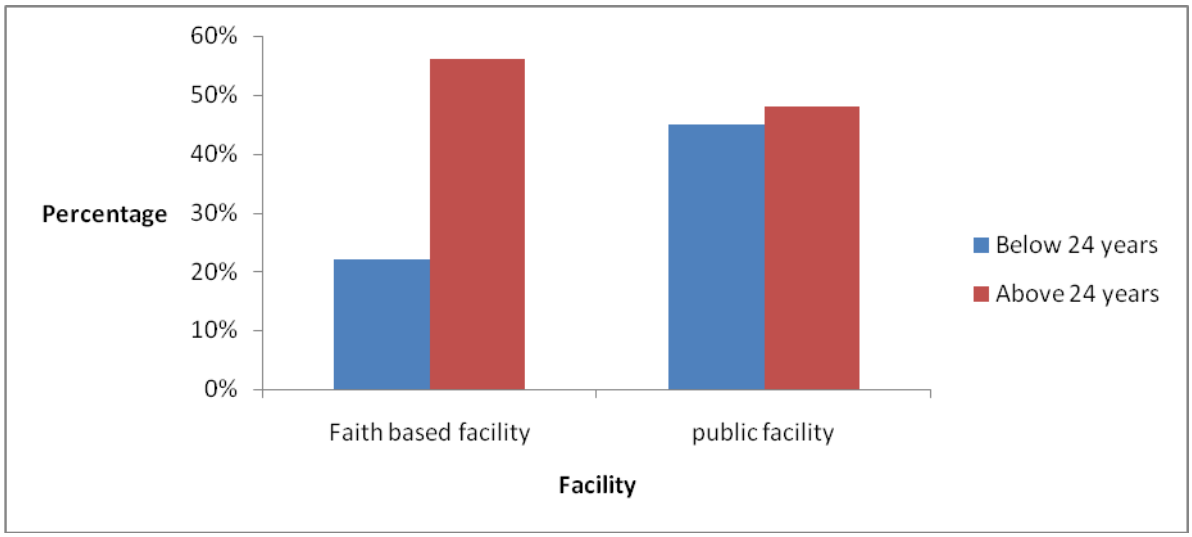

Figure 4: Percentage of Those Offered Family Planning Services in the Different Age Groups

Table 10, 11 and figure 6 shows that only 46 respondents were offered a family planning option before discharge but overall uptake was 36% as 11 respondents did not prefer to use a method. Those below 24 years of age were less likely to be offered family planning in the faith-based facility compared to their counterparts.

Analysis to check whether the differences were statistically significant was done using Pearson's Chi-Square test of independence.Aim was to examine the relationship between age and the likelihood of being offered a family planning method. Those who were more than 25 years were more likely to be offered a family planning option (56%) compared to those less than 24 years (22%) in the faith-based facility, Odds Ratio 0.22(0.06, 0.83) P value <0.02 which was statistically significant. This was not the case in a public hospital, OR 0.97(0.32, 3) P value 0.96 showing that the difference was not statistically significant.

Table 12: Family Planning Choices Made in Those Offered Family Planning

Family planning method	**Frequency**	**Percentage %**
Oral contraceptive pills	4	9
Depo Provera	20	**43**
Norplant	11	23
Tubal ligation	1	2
None	11	23
Total	**47**	**100**

From Table 12, it is evident that the most preferred family planning method across all age groups is Depo Provera (43%), followed by Norplant at 23%. 9% of the respondents preferred oral contraceptive pills, 1 respondent above the age of 40 chose bilateral tubal ligation. Of the 47 who were offered a family planning method, 11 of the decided not use any family planning method.So, overall family planning uptake was 36%.

Table 13: Showing the Age of Respondents in Relation to the Helpfulness of Information Received in Relation to Family Planning

		Adequacy of information			Likert scale P value
		Extremely Adequate	Adequate	Inadequate	
Age	Below 18years	1	2	0	< 0.00001
	18-29	15	29	1	
	30-39	16	7	0	
	Above 40	0	0	1	
Total		**32**	**38**	**2**	
P value showing relationship between satisfaction and age or type of hospital			0.082		

Table 13 gives further analysis of adequacy of information on family planning education, in relation to the different age groups. In this regard, it is evident that most of age groups find the information adequate except for one respondent below 18 years and one above age 40found the information inadequate.

Upon Analysis: A Pearson's chi square of independence was calculated 95% confidence interval showed that the satisfaction levels with education on family planning options provided were highly statistically significant P value < 0.00001. Analysis comparing if satisfaction levels were different depending on age and the type of facility the patients were managed in. A p-value was 0.082 at 95% confidence interval was not statistically significant. This infers that generally, patient's satisfaction with this care provided did not vary between the different age groups neither with the facility of management.

4.3.4 Provision of Other Reproductive and Medical Health Services

Table 14: Whether Underlying Conditions Were Addressed

		Did you Receive Care for the condition?	
		Yes	No
Total	Only 9 participants had an underlying medical condition	6	3

From table 14, it is evident that only 9 patients out the 100 respondentsreported an underlying medical condition that required attention during that admission. Only 6 out of the 9 patients reported to have received care for the underlying medical condition in addition to post abortion care.

Table 15: Table Showing Testing and Counseling on HIV and STIs

			Those tested and counseled about HIV and STIs	
			Yes	No
Total	Age of Respondents	Below 18 years	1	3
		18-29	27	34
		30-39	18	14
		Above 40	0	2
	Total		46	53

From Table 15, it is evident that out of 99 patients who disclosed their responses, that only 46 patients were counseled and tested for HIV and STIs. Additionally, only one patient below the age of 18 was tested for HIV. Neither of the two (2) patients above the age of 40 was tested for HIV. There was a missing response from 1 respondent below the age of 18 years. This information further indicates that the quality of post abortion care offered to patients in the two facilities with regards to HIV testing is poor because of high number of patients who were not counseled and tested for HIV and STIs.

Table 16: Showing Likert Scale Results of Helpfulness of Information Concerning Prevention and Management of Other Reproductive Services (HIV and STIs)

		Was above information helpful for future pregnancies?			Likert scale P value
		Extremely Helpful	Helpful	Unhelpful	
Total	Below 18 years	0	1	1	
	18-29	11	15	1	
	30-39	9	4	2	<
	Above 40	1	0	1	0.00001
	Total	21	20	5	
	P value showing relationship between satisfaction and age or type of hospital	0.125			

Table 16 shows that 41 patients out of 46 patients found the information received with regards to prevention and management of HIV and STIs helpful evidenced by (Extremely helpful-21 and helpful-20). 5 respondents found the information not be helpful.

A chi square of independence calculated at 95% confidence interval showed that the satisfaction levels the information provided was highly statistically significant P value <0.00001. A bivariate analysis comparing if satisfaction levels were different depending on age and the type of facility the patients were managed in. A p-value was 0.125 at 95%

confidence interval. This infers that generally, patient's satisfaction with care provided did not vary between the different age groups neither with the facility of management.

4.1.8 Linkage to Care

Table 17: First Place of Presentation for Care

			Frequency N=100
These two hospitals?	YES	61	61
	NO	35	35
	X	4	4

Table 18: Reasons Why They Presented to the Two Hospitals

	Why were you sent here?			
	lack of Medication	No Blood	For specialized Care	Personal Choice
A non-medical place	1	0	3	1
Dispensary/chemist	0	4	15	11
Total	1	4	18	12

From Table 17 and 18, it is evident that 35 respondents went somewhere else before arrival to the current hospital., (30/35) 86% of the patients, presented to lower level facilities (dispensary or chemist) for care before being sent to the referral hospitals. Only a few patients presented to a non-medical place for care. It is also evident that majority of the patients were referred to the Hospitals for specialized care evidenced by a frequency of 18. 12 of the respondents came to the Hospitals because of their own volition/personal choice. 4 of the patients presented to the hospitals because of the lack of blood while one (1) patient presented to the hospitals because of lack of medication at their first place of presentation.

Table 19: Enquiries on Whether the Patients Were Given Clinical Follow-up on not Upon Discharge from Individual Hospitals

		Frequency n-100	Percent
Follow-up date	Yes	47	47%
	NO	44	44%
	Missing response (x)	9	9%

Data in Table 19 shows that at the point of discharge from the two hospitals, only 47 percent of the respondents reported to have been given a return date for follow-up from the two hospitals.

Table 20: Frequency on How Each of the Packages was Provided Compared to the Recommended Standard of Care

Package		Recommended Target	Percentage of Those Who Received the Care
1	Emergency care	Pain management 100% Access for care less than 24 hours; 100%	32% 30%
2	Family planning uptake	Kenyan average 59% SDG TARGET 66%	36%
3	Counseling and spiritual care	100% in those affected	66%
4	Other reproductive health services	100%	46%
5	Linkage to care	100%	47%
Overall	% of those who received all 5 elements	100%	30%

Table 20 shows that, generally, access to post abortion care was poor only 30% being able to accessemergency care on time. Pain management was inadequate since despite a majority of the women (83%) reporting pain at presentation only 32% objectively received any form of pain management. Gaps were also noted in uptake of family planning services where only 47% were offered a contraceptive method and of these,

uptake was at 36%. On spiritual care and emotional counseling, 100% of respondents reported having been emotionally affected by the abortion but only 66% reported care in that area. HIV and STIs with only 46% receiving that service while the guidelines recommend 100% care. Gaps in linkage to care were noted as represented with late access to care, improper referral system and inadequacies in follow-up after discharge. Only 30% of women received all the five elements of comprehensive post abortion care as most of the women reported not havereceivedat least one or two of the required services. Nevertheless, despite a small percentage of the surveyed respondents reporting dissatisfaction with the care provided, statistically, most patients reported high satisfaction levels with the care received.

4.4 Discussion

4.4.1 Introduction

The phrase "POST ABORTION CARE" was stated in 1991 as a vital component of advocating for women's health by the USAID strategic plan document. Many nations, Kenya included, agreed to adopt this model whose aim was to break the vicious cycle of repeat abortions from unwanted pregnancies, combat the rising cases of maternal mortality due to abortions and in turn improve women's health especially in the developing world. This package was used as a framework for providing quality abortion care when all the essential elements were provided (Corbett & Turner, 2003). This package goes in line with SDGs that state that by 2030, all countries should strive to ensure that women of reproductive age have access to sexual and reproductive health services, which also include education and information to family planning services. To achieve that goal as a country, we need to integrate reproductive health into national strategies and programs and this will also aid in meeting the goal of reducing maternal mortality rate to less than 70 per 100,000 live births by 2030(Solberg, 2015)

The aim of this study was to determine if all the elements that constitute comprehensive post abortion care are provided in our healthcare settings and if the patients are satisfied with the care provided. From the results above, it is evident that there are some elements that are well provided but we still have gaps in some of the most essential of the five elements which could explain why as a healthcare system we are still grappling with the issue of preventing maternal mortality and morbidity that result from complications of abortion. We need to aim our efforts at preventative healthcare rather than curative healthcare when it comes to matters of abortion and that means being exhaustive with the quality of care provided in our health facilities.

Socio-demographic characteristics

Majority of the study participants were young women with an average level of education, low socioeconomic status from a rural community. Results also show that mostof the pregnancy losses were first trimester abortions then followed by second trimester abortions. Most of these pregnancies were unplanned and 26% of the abortions were induced using a drug purported to be misoprostol which is a lifesaving drug used to prevent maternal mortality due to postpartum hemorrhage.

These socio-demographic characteristics of the are almost similar to most studies done in East Africa and Kenya especially in rural areas and parts with low socioeconomic status where majority of affected especially with induced abortions women are between 18-29 years, majority having a lower level of education and low source of income(KRHC & RHRA, 2010; H. Marlow et al., 2013; Puri, Vohra, Gerdts, & Foster, 2015)These factors determine a lot when it comes to these women's health seeking behavior, their ability to access and afford care and generally their views in what

constitutes quality care (Izugbara, Egesa, Kabiru, & Sidze, 2017; Maina, Mutua, & Sidze, 2015). This may explain why these women presented for care late as factors such as lack of money, ignorance and poor access to health facilities.

4.4.2 Access and Provision of Emergency Care

This study indicates that access to care in the region of study is still very poor with results showing that, 70% of the surveyed women presented to healthcare facilities after 24 hours from the onset of symptoms, which were mainly bleeding and abdominal pains. Bleeding is a life-threatening issue which could lead to very high mortality if not handled on time. Literature has looked at reasons why women present late for care. Studies done in Kenya over the years show that most women do not seek timely care even when they experience life threatening complications due reasons such as; stigma, fear of reprisal from health care workers especially when the abortion was induced, lack of money, ignorance, inaccessible facilities and also if the partner is against it they would not seek care (KRHC & RHRA, 2010; Mutua, Achia, Maina, & Izugbara, 2017; Penfold, Wendot, Nafula, & Footman, 2018).

The late presentation for care explains the increased need a lifesaving blood transfusion where 62% of the surveyed population needed blood as part of emergency care treatment. This is a burden to our health care in terms of cost as most of our lower level facilities may not have the capacity to have a blood banks, so these women have to all be sent to the referral facilities, whereas, if they presented early enough, the cost of care and burden on higher level facilities would significantly reduce. Those who required antibiotic were 19% and this could be attributed to delay which led to increase in infection of the products of conception or rather the induced abortions in unsanitary situations. 48% of these women needed to go to theater for evacuation either using manual vacuum evacuation or dilation and curettage, this could have been avoided with

early presentation. Medical management with misoprostol could have been used as it has been proven to be as effective as manual vacuum aspiration or dilation and curettage. Some of the reason's a woman may need to get to theater would be if she presents with life threatening bleeding either due to incomplete abortion or infection (Darney et al., 2018; Delvaux, Sœur, Rathavy, Crabbé, & Buvé, 2008).

Another gap was noted in the area of offering proper pain management. Upon presentation, 71% of the women reported to have abdominal pain but only 32% objectively received any form of pain management. Pain management should be offered to all women presenting with abortion complications and are in pain. A qualitative study done in Kenya by Kenya Human Rights Commission showed that one of the reasons why some women opted not to seek care from health facilities is that they were often managed without any pain relief (KRHC & RHRA, 2010) The recommended pain management according to guidelines is use of non-steroidal anti-inflammatory agents first then escalate to opioids depending on the patients pain scale. For those requiring evacuation using manual vacuum aspiration or dilatation and curettage, simple sedation or local anesthesia would suffice (Kapp, Whyte, Tang, Jackson, & Brahmi, 2013)

On the aspect of management of incomplete abortions, studies show that evacuation using misoprostol is equally as effective as dilatation and curettage or manual vacuum aspiration. The advantages of using misoprostol is accessibility and ease of use which in turn reduces the cost of care as it can be done in the lower level facilities by trained healthcare workers in every cadre (Aiken, Guthrie, Schellekens, Trussell, & Gomperts, 2018; Rasch, 2011) This study shows most of the surveyed women (89%) presented with incomplete abortions which required evacuation. The faith-based facility used medical management using misoprostol in 84% of all their incomplete abortions while public facility did either manual vacuum aspiration or dilatation and curettage to evacuate the

products of conception in 91% of the women who presented for care and needed evacuation. The reasons why the public facility prefers manual vacuum aspiration or dilatation and curettage need to be evaluated since studies show that medical management with misoprostol is equally effective. Studies show that misoprostol use reduces the cost of PAC services, as it does not require higher level skilled personnel and availability of a theater or a sterilizing unit. Misoprostol for the treatment of incomplete abortion is an important option especially in lower level facilities and any cadre in the medical filed can be trained to appropriately use it especially where surgical management may be delayed or is lacking(Huber, Curtis, Irani, Pappa, & Arrington, 2016)

On patient satisfaction, generally the respondents reported to receive adequate emergency care in both hospitals. Only 4 respondents were dissatisfied with the care from the two hospitals but reasons for dissatisfaction were not captured in this study. There was no statistical difference in satisfaction levels based on age or the type of hospital. This compared to most studies done outside Kenya and in Kenya looking at patient satisfaction that showed similar results (Evens et al., 2013; Tesfaye & Oljira, 2013b)

4.4.3 Family Planning Education and Provision

At no point should abortion be used as a method of family planning (Curtis, 2007)Family planning counseling and services is one of the most important measures of quality post abortion care if offered properly and in a timely manner. Studies show that more women are more likely to accept a family planning method and sustain its usage if it is offered early, preferably before or at the point of discharge and even then with close follow-up the rate of acceptance goes higher (Pearson et al., 2017; Tesfaye & Oljira, 2013b) Unmet need for contraceptive services lead to unwanted pregnancies and repeat

abortions. Modern long-term contraceptives remain easily available especially in the higher-level facilities but use remains low. Studies show that an estimated 120-165 million women worldwide would like to space their pregnancies but still do not use a reliable contraceptive method. Some of the reasons for not using contraceptives include; in accessibility age, partner refusal, religious values, side effect profile of some contraceptives, incorrect use and lack or false knowledge on contraceptive use as the factors that contribute to the unmet need for contraceptive use (Huber et al., 2016; Makenzius et al., 2018).

From this study, results show that a majority of respondents (56.6 %) did not plan to have this pregnancy. Of note, a significant percentage of women with unplanned pregnancies were unmarried and even those who were married still had unplanned pregnancies which could be attributed to lack of contraceptive use for various reasons making it difficult for these women to plan and space their pregnancies as required. Most studies done in Kenya show that a good number of women had a prior history of a previous abortion and most of them were not using a contraceptive at the time of conception (Izugbara, Egesa, & Okelo, 2015a; Kabiru, Ushie, Mutua, & Izugbara, 2016; K. K. Ziraba et al., 2015).

In Kenya, contraceptive uptake stands at 59%, while the target according to SDGs is to be at 66% by 2030. In this study, at the point of discharge, it was noted that only 47% of these women were offered a contraceptive method and the overall uptake was at 36% at discharge as some of the women personally requested for a contraceptive. Counseling/ education on family planning was only offered to 46% of the patients, 57 % of them termed the education very adequate to help them make a decision and one patient cited the counseling service to be very inadequate. This is an area of great need and improvement should be made without discrimination based on age or any other factor.

This can be done by aggressive counseling and patient education by health care workers to determine the needs of the women. For example, women would be asked, how do they want to space their pregnancies?Do they still want children? For the unmarried, since they are sexually active, how can they be helped to prevent unwanted pregnancy? This will help health care workers offer either a short term or long-term contraceptive based on patient needs. In another study, women were offered counseling on family planning and were followed up closely up to four months which yielded a contraceptive uptake of 76% with proper counseling and follow-up (Pearson et al., 2017).

Despite most facilities reporting to provide family planning services, most studies show that a significant percentage of women seeking post abortion care still do not have access to family planning services. (Izugbara et al., 2017; Jayaweera, Ngui, Hall, & Gerdts, 2018) These results indicate that family planning education and uptake is still below the current average attainment and way below the goal according to SDGs, hence another area that needs improvement.Which contraceptives are women taking up? In Kenya, the ministry of health notes that accessibility of contraceptive in the country has improved recently. Modern contraceptives are free in government facilities. Despite these, contraceptive uptake is still low and those who take up contraceptives are noted to only use short term contraceptive methods which may be counterproductive. (Maina et al., 2015; Makenzius et al., 2018; Tesfaye & Oljira, 2013c).

In Sri Lanka a study done by DeGraff and Siddhisena 2015, where follow-up of post abortion patients discharged from health facilities showed that, of the women who received a short-term contraceptive, only 48% still used a family planning method at 8 weeks. Uptake of long-term reversible contraceptives methods is low in most countries (Benson et al., 2018; Makenzius et al., 2018) In this study, both hospitals have the ability to offer both long term and short term contraceptive methods. From the

contraceptives available, 43% (20 out of 47) of the women chose Depo Provera (3months injectable), 23% (11 out of 47) picked Norplant which is a 3-year arm implant, 9% (4 out of 47) oral contraceptive pills while one woman preferred a permanent method(tubal ligation). This compares to other studies done around Kenya that show the trend in use of short term methods and most women preferring mostly Depo Provera, oral contraceptive pills and emergency pills compared to the long term methods available (Borges, Olaolorun, Fujimori, Hoga, & Tsui, 2015; Doreen, 2010; Evens et al., 2013). Of note, only 46% of the patients managed were offered any form of education and counseling family planning. This is inadequate as according to the USAID strategic plan and our Kenyan guidelines, every woman needs to be educated and counseled on family planning methods. (Benson et al., 2018) There was a significant difference between those who was offered family planning and those who were not, depending on age. Those who were less than 24years were less likely to be offered a contraceptive compared to those above 25 years. This also greatly varied with the type of facility where those less than 24 years were even less likely to be offered a contraceptive in a faith-based facility. Reasons behind these discrepancies were not pursued in this study. This is similar to studies done around Kenya that show young women who are single from low socioeconomic status re less likely to be offered a modern contraceptive method unless they actively ask for it (Kabiru et al., 2016; Renner, De Guzman, & Brahmi, 2014).

On the aspect of patient satisfaction, generally most patients who received education on family planning (46 %) reported reception of education and counseling to be adequate in helping make decisions on how to plan their pregnancies. 2 patients cited dissatisfaction with the counseling services. There was no statistical difference in satisfaction levels based on age or facility type among those who received that care.

4.4.3 Counseling to Enhance Emotional Health and Spiritual Care

Emotional and mental health is vital portion of offering whole person care. Whole person care considers a complete person, physically, psychologically, socially, and spiritually and all this components complement each other in the prevention and management of any disease.(Dobkin, 2011; Hutchinson, 2011)Literature clearly shows that when a woman suffers an abortion, whether induced or spontaneous, an array of emotional feelings ranging from anxiety, distress, fear, guilt and some even have depression reported from 1 month to 2 years after the vent (Andersson, Christensson, & Gemzell-Danielsson, 2014; Coleman, 2011; Reardon, 2018)Therefore emotional care provides an opportunity to help women explore their feelings about their abortion, assess their coping abilities, manage anxiety and make informed decisions.

From this study, it is evident that most of the women had some form of psychological trauma with feelings of guilt, sadness, shame and grief affecting most of them. Some of them even noted relief after pregnancy loss. It is noted that a majority had more than one feeling for example, a woman would be grieving the loss of a pregnancy and feel ashamed at the same time. The study did not dig deeper to determine the extent of the emotional turmoil but it was evident that, these women required some level of counseling to enhance their mental health. Despite this, only 66% reported to get counseling which helped with their emotional health and 69% reported to have received spiritual care. This is often a neglected area of post abortion care and some studies even report that health care workers often contribute to the emotional trauma when compassionate care is not offered and verbal harassment. (Izugbara, Egesa, & Okelo, 2015b; Loi, Gemzell-Danielsson, Faxelid, & Klingberg-Allvin, 2015; Yegon, Kabanya, Echoka, & Osur, 2016)

Patient centered care needs to be enhanced to help these women cope with the loss of the pregnancy and an emotionally healthy woman is then capable of healing quicker and

capable of making informed decision about her next pregnancy. According to guidelines, offering emotional and spiritual care is a vital aspect and this needs to be done based on the needs of these women, with respect and politeness.(Reardon, 2018; World Health Organization, 2016).

The women who received emotional care and spiritual care reported high satisfaction levels with the care provided and termed the care to be helpful in term of coping with the current situation. This therefore means that improvements need to be made to ensure all women receive mental health care.

4.4.4 Other Reproductive Health Education and Services

This aspect looks at if any other important service was provided other than abortion complications. The scope was narrowed down to if patients were counseled and tested for HIV and STIs, and if the respondents received attention for any other preexisting medical condition during the hospital stay. Results show that only 9 out of 100 respondents had an underlying medical condition which needed attention during that time but only 6 out of the 9 received medical attention for it. On testing for HIV and STIs, 46% of patients were counseled and tested for HIV and STIs. Additionally, only one patient below the age of 18 was tested for HIV. None of the two (2) patients above the age of 40 was tested for HIV. This is a gap in care since this is a vulnerable population. Women presenting for post abortion care are a high-risk group when it comes to matter of STIs and HIV.

Prompt testing and management in this vulnerable group is acceptable and relevant that is why it is part of the comprehensive post abortion care package.(Avery & Lazdane, 2008; A. K. Ziraba, Madise, Mills, Kyobutungi, & Ezeh, 2009) Those who test positive should be informed, counseled and advised about treatment and partner notification, and

then proper follow-up or referral should be in place. These women, especially the unmarried and minors are exposed to unprotected sex and studies show that most healthcare providers miss this important aspect during care**.** This is an opportunity for these women to receive education on condom use or dual protection from unwanted pregnancy and also prevention of STIs and HIV.Few studies have been done to look at this unmet need in this population in relation to CPAC. A study that looked at this aspect reported this as an unmet need in this populations (Griffith, 2014; Kinaro et al., 2009; Susheela et al, 2013)

4.4.5 Linkage to Care

Linkage to care looked at whether there was a proper referral system, if the patients were aware of danger signs and was able to seek care early and also if there was follow-up after discharge. Results show that access to care was problematic due to the large number of patients (70%) reporting for care late, more than 24 hours. 63% of respondents reported to have received any form of education either from a health facility or in the community on dangers of abortion and pregnancy complications. Of note, a majority (90%) of patients actually presented to a health facility as their first place for care. This is a good sign, but those who presented to other non-medical places came to health facilities not because they were referred but either due to own volition or the need for blood. On review of follow-up for further management, only 46% were given a return date or even referred elsewhere for further care.

Studies have been done looking at reasons why women especially with abortion complications present to care late. Reasons vary from stigma from the community and health facilities especially in those with induced abortions, fear of embarrassment, financial problems, lack of awareness, ignorance where women put off care until their condition is life threatening and poor referral systems(Marlow et al., 2014; Ushie et al.,

2018) this can be solved by aggressive community involvement by use of community health workers who will educate the community on dangers of abortion and its complications and this will increase awareness of CPAC services offered in the health facilities. CHWs are able to reach those who are unable to get to health facilities to provide post abortion family planning counseling and services, education and timely referral to facilities. This will also enablewomen in the communityto recognize danger signs during pregnancy such as bleeding and encourage prompt health-seeking behavior.This partnership between the community and health care providers will ensure that the community expectations and needs are met (Kalu, Umeora, & Sunday-Adeoye, 2012) Proper linkage to care with proper and timely referral systems coupled with community education will improve access to care.

4.5 Objective Three; How Many Respondents Received the Full CPAC Package

From this study, only 30% of the respondents received all the five elements of CPAC according to the guidelines. This is because some reported to have failed to receive one or two of the CPAC elements. Despite literature showing that when CPAC is offered there is improvement in maternal mortality and mortality, no quantitative study published has looked at the complete post abortion care package by evaluating how frequently or how many post abortion care clients received the full CPAC package. Some studies look at the elements independently and those that attempt to look at more than one elementare qualitative studies.The fact that only 30% received the care required is concerning as most vital elements of care are missed and this points towards gaps in the quality of care provided in facilities in Bomet County.The recommended minimum number needed to use as a measure of quality is lacking in the guidelines or literature but

the recommendation is that measures have to be put into place to ensure most women if not all receive the full CPAC package.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This chapter gives a summary of the study findings, highlighting the gaps recognized in the post abortion care provided. Recommendations on how post abortion care can be improved in our health facilities are highlighted and areas that need further research emphasized.

5.2 Summary

This study shows that, generally, access to post abortion care was poor with up to 70% of surveyed women accessing care after 24 hours despite life threatening complications. This in turn led to high cost of care, where some of the patients who could be managed in the lower level facilities needed referral to higher level facilities. A majority (62%) needed blood and 89% required evacuation of retained products of conception. Pain management was inadequate since despite a majority of the women (83%) reporting pain at presentation only 32% objectively received any form of pain management. Gaps were also noted in uptake of family planning services where only 47% were offered a contraceptive method and of these, uptake was at 36%, way below recommended 66% target by SDGsand the options chosen were mainly short term methods which many studies show that these short term methods were not sustainable as majority of women did not continue to use any family planning method at three months on follow-up. Those who were more than 25 years were more likely to be offered a family planning option (56%) compared to those less than 24 years (22%) in the faith-based facility with OR of 0.22(0.06,0.83) P value <0.02. This was not the case in a public hospital, OR 0.97(0.32, 3) P value 0.96. This is way below the average recorded uptake of 59% in Kenya and the target of 66% according to SDGs. On spiritual care and emotional counseling, 100% of

respondents reported having been emotionally affected by the abortion but only 66% reported care in that area. There are still gaps in proactive counseling and testing for HIV and STIs with only 46% receiving that service while the guidelines recommend 100% care. Since this is a vulnerable population, this is a missed opportunity for aggressive testing of HIV and STIs to ensure early management and also according to Kenyan guideline in preventing mother to child HIV transmission, all pregnant women need to be counseled and tested as soon as they present for care. Gaps in linkage to care were noted as represented with late access to care, improper referral system and inadequacies in follow-up after discharge. Only 30% of women received all the five elements of comprehensive post abortion care. Nevertheless,despite some reporting dissatisfaction with care provided, statistically, most patients reported high satisfaction levels with the care received.

5.3 Conclusions

Results indicate that the quality of post abortion care provided in our facilities is still below the recommended standard of care as portrayed by how frequently the five packages are provided. Gaps are noted in how frequently the elements of comprehensive post abortion care are provided in Bomet County in reference to the guideline's requirements.Only 30% of the surveyed population reported to receive all the elements that constitute CPAC. On emergency care improvement need to be made in pain management, improve access to care in the lower level facilities. Family planning provision and counseling is also another element that needs aggressive improvement especially to those less than 24 years of age. Mental health needs to be emphasized as a vital element that needs to be provided to every woman who presents for care. Missed opportunities in counseling for STIs and HIV were noted which needs improvement. Strategies on proper referral systems with community involvement and close follow-up

of these patients need to be put in place by the care providers. Despite patients citing high satisfaction levels with the care provided, there are still vital components that need improvement in our health facilities.

5.4 Recommendations

5.4.1 Policy Recommendations

i. Ministry of Health needs to ensure that health facilities are adhering to standard of care by offering comprehensive post abortion care package as stipulated in the guidelines. The lower level facilities need to be equipped to handle post abortion complications to ease the burden on referral hospitals.

ii. Health facilities need to strengthen community and service provider partnerships to bring care closer to the community. Each facility also needs to run quality improvement projects, find areas that need improvement, and work on these areas in order to provide quality comprehensive post abortion care

iii. Health care professionals of all cadres need to be frequently trained on the post abortion care package so that they can offer it as whole.

iv. Community education and awareness by use community health workers to ensure that women can recognize early danger signs during pregnancy and for then to help with a prompt and proper referral system.

5.4.2 Recommendations for Further Research

i. Qualitative aspect to find out reasons why there are gaps in post abortion care in our facilities and awareness of healthcare professional on aspects of CPAC.

ii. A qualitative study to find out factors affecting early access to care among women with abortion complications in this region and how that can be improved.

iii. Qualitative data on perceptions of women on what constitutes quality care and their level of awareness of their rights to quality care.

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APPENDICES

Appendix I:Consent and Interview Guide

Consent/Assent Form for Participation in the Study

Study Identification Number:

Date: _____

Principal Investigator: Dr. MourineMelenia
Address: TenwekMission Hospital. Family Medicine Department.

Introduction (This was done by the research assistant)

I am a health worker currently stationed at Tenwek Mission Hospital. I would like to invite you to take part in a research study. To be sure that you understand what it means to be involved in this study the following details will be explained to you.

This study aims to determine if women who have lost a pregnancy are given adequate care for the complications that they suffer.

If you agree to take part in the research study, you will be asked to fill in or respond to an interview guide. Your name will not be recorded in the interview guide. In case you are not sure of the care you received then some information may be completed from your patient file records. The interview guide will be marked with study numbers for analysis only. The information you give will be treated as confidential. Filling of the interview guide will not take more than 30 minutes.

Possible risks of the study

We do not anticipate any risks. You are free to decide if you want to participate in the study or not. Your decision will not be used against you or affect your care in any way if you decide not to participate in the study.

Confidentiality

The information we collect will be kept confidential. The research reports and publications will not reveal your identity.

Compensation

We will not be able to provide you with any payment or gift for being in the research but we will appreciate your participation.

Participant's Agreement

The above document describing the

Signature of participant/guardian or thumb print_____ Date ____/____/____

I certify that I have explained the nature and purpose of the study to the participant whose study Identification number is _____

Signature and name of person obtaining consent

The Quality of Post Abortion care given to Women Presenting to Two Hospitals In Bomet County.

Identification

Patient's Study Number _____ _____ _____

Socio Demographic Data

1. What is your age in years? _____ _____
2. What is your marital status?
   a) Single
   b) Married
   c) Divorced
   d) Separated
3. What is your completed level of education?
   a) None
   b) Primary
   c) Secondary
   d) College/ University
4. What is your source of income?
   a) Formal employment
   b) Business (Jua kali)
   c) Family support
   d) None

Section A: Pregnancy History

1. How many pregnancies have you had? _____
2. How far along was this pregnancy? Weeks/months or first day of menstrual period _____
3. Did you plan to have this pregnancy?
   a. Yes
   b. No
4. Have you lost any other pregnancy before this one?
   a. Yes
   b. No
5. How did you lose this pregnancy?
   a. Was assaulted
   b. Used some pills
   c. Used unknown medication (herbal)
   d. Something was placed in the birth canal outside a health facility
   e. Spontaneous bleeding and pain
   f. Other (state) _____

Section B: Emergency Care Services

1. How long did it take you to access care?
   a. Less than 24 hrs.
   b. More than 24 hrs.
   c. More than a week
2. Which of these problems did the patient present with? (TICK all that apply) to be **Completed Fromchart Reviews**

Bleeding
Severe abdominal pain
Sepsis /infection
Uterine perforation/rupture
Intestinal injuries
Genital trauma
Anemia
None
Other (state)

3. Which of these emergency services did the patient receive? (to be completed from chart reviews) choose all that apply.

	Yes	No
Vitals signs checked		
Evacuation using misoprostol		
Theater (MVA/ Dilatation and Curettage		
Antibiotics		
Intravenous fluids		
Blood transfusion		
Pain management		
HIV testing		
Treatment or testing for STIs		
None of the above		

4. Were you satisfied with the way you were treated immediately you presented to this hospital?

Extremely Satisfied	Very satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Dissatisfied	Extremely Dissatisfied
1	2	3	4	5	6

Counselling Services Offered

1. Did you experience any of these feelings? (Choose all that apply)
   a. Felt worthless
   b. Sad
   c. Guilt
   d. Felt judged
   e. Shame
   f. Grief
   g. relief
   h. Other(state) _____
2. Did anyone address any of these feelings?
   a. Yes
   b. No

3. How adequately were the feelings addressed?

Extremely adequate	Very adequate	Moderately adequate	Moderately inadequate	Inadequate	Extremely inadequate
1	2	3	4	5	6

4. Did you receive any spiritual care during your hospital stay?

a. Yes

b. No

Was the spiritual care you received helpful?

Extremely helpful	Very helpful	slightly helpful	Slightly unhelpful	unhelpful	Extremely unhelpful
1	2	3	4	5	6

Family Planning Counselling

5. Did you receive any education on different types of family planning?

a. Yes

b. No

6. Were you offered any family planning options?

a. Yes

b. No

If yes, which one did you choose?

Oral contraceptive pills	
3 monthly injection (DepoProvera)	
3/5-yearoption(jadelle/Norplant)	
Intrauterine device	
Condoms	
Tubal ligation	
None	

7. Was the information on family planning adequate in helping you plan for future pregnancies?

Extremely adequate	Very adequate	Moderately adequate	Moderately inadequate	Inadequate	Extremely inadequate
1	2	3	4	5	6

Other Reproductive Health Education And Services

8. Do you have any other underlying medical condition apart from the one you presented with?
   a. Yes
   b. No
9. Did you receive care for the medical condition?
   a. Yes
   b. No
10. Were you tested and counseled about HIV?
    a. Yes
    b. No
11. During your hospital stay did someone takes time to educate you on dangers associated with abortion/pregnancy loss?
    a. Yes
    b. No
12. Did you get an education on what to do when you face problems in your next pregnancy?
    a. Yes
    b. No
13. Was all the above information helpful in helping you care for yourself in the future?

Extremely helpful	Very helpful	slightly helpful	Slightly unhelpful	unhelpful	Extremely unhelpful
1	2	3	4	5	6

Linkage To Care

14. Was this the first place you presented for care?
    a. Yes
    b. No
15. If yes, where did you first go?
    a. A friends place
    b. A midwifes home
    c. To a herbalist
    d. To a dispensary/health facility
    e. To a chemist
    f. Other (state) _____
16. Why were you sent here?
    a. Lack of medication
    b. No blood
    c. No doctor
    d. For specialized care
    e. Personal choice
    f. Other(state) _____
17. Have you been given a clinic follow up after this discharge?
    a. Yes
    b. No
18. On the scale of 1-6, how satisfied were you with the care you received during the hospital stay?

Extremely satisfied	Very satisfied	Somewhat satisfied	Somewhat dissatisfied	Dissatisfied	Very dissatisfied
1	2	3	4	5	6

19. Did you have any of these thoughts during your care?

I felt judged during my care	
I felt I was ignored most times	
I felt I was being judged	
I felt well cared for	

Appendix II: Swahili Interview Guide

Fomu Ya Idhini Kwa Anayeshiriki Katika Somo

Nambari Ya Utambulisho Wa Somo:_____

Tarehe: _____

Daktari Mkuu Anayefanya Uchunguzi: Dk Mourine Melenia

Anwani: Hospitali ya Umisionari ya Tenwek : Kitengo cha Dawa ya familia.

Utangulizi (Huu utafanywa na msaidizi wa utafiti)

Mimi ni mfanyikazi wa afya anayefanya kazi kwa sasa katika Hospitali ya Umisionari ya Tenwek facility. Ningependa kukukaribisha kushiriki katika somo la utafiti. Ili kuwa na uhakika ya kwamba unaelewa maana ya kushiriki katika somo hili, maelezo yafuatayo yatafafanuliwa kwako.Lengo la somo hili ni kupambanua ikiwa wanawake ambao wamepoteza ujauzito wao wanapokea huduma bora kwa matatizo yanayowakumba.

Ikiwa unakubali kushiriki katika utafiti wa somo utaulizwa kujaza mapengo kwenye hojaji. Jina lako halitaorodheshwa kwenye hojaji. Hojaji itasahihishwa kupitia nambari ya somo kwa ajili ya uchanganuzi tu. Habari unayotoa itawekwa kuwa siri. Kujaza hojaji haitachukua muda mrefu

Hatari zitakazoweza kupatikana kwa somo

Sisi hatutarajii kuwepo na hatari zozote.

Uko huru kuamua ikiwa unataka kushiriki kwa somo au hapana. Uamuzi wako hautatumiwa kukupinga ikiwa utaamua kutoshiriki kwenye somo.

Uaminifu

Habari tutakazokusanya zitawekwa sirini.

Ripoti za utafiti na uchapishaji hazitaonyesha utambulisho wako.

Malipo

Hatutaweza kukupa malipo yoyote au zawadi kwa kushiriki katika utafiti lakini tutakushukuru kwa kushiriki kwako.

MAKUBALIANO YA MSHIRIKI

Maandishi yaliyoandikwa yanaeleza

Sahihi ya Mshiriiki_____ tarehe ____/_____/_____

Ninahakikisha kwamba nimeeleza hali na lengo la somo kwa mshiriki ambaye nambari yake ya utambulisho ni _____

Sahihi ya mtu anayekubali idhini_____

HOJAJI

UBORA WA HUDUMA YA AFYA BAADA YA MIMBA KUHARIBIKA KWA WANAWAKE WANAODHURIA HOSPITALI MBILI KATIKA KAUNTI YA BOMET.

UTAMBULISHO

Nambari ya mgonjwa anayeshiriki kwa somo:_____

TAKWIMU YA UZAZI KATIKA JAMII

1. Je, una miaka mingapi?_____
2. Je, uchumba wako ni nini?
   a) Hujaolewa.
   b) Umeolewa.
   c) Mmetalikiana na mume wako.
   d) Mmetengana na mume wako.
3. Je, umefika kiwango kipi kwa elimu yako?
   a) Hakuna
   b) Shule ya msingi.
   c) Shule ya upili.
   d) Chuo cha elimu au chuo kikuu.
4. Je, ni nini kinachokupa mapato ?
   a) Kuajiriwa.
   b) Biashara(jua kali).
   c) Kusaidiwa na familia.
   d) Hakuna.

SEHEMU YA (A):HISTORIA YA UJAUZITO

1. Je umewahi kuwa na ujauzito ngapi?_____
2. Je, ujauzito huu ulikuwa wa muda gani?

   Wiki au miezi au siku ya kwanza ya siku zako za mwezi?
3. Je, ulikuwa umepangia kuwa na mimba?

   a.Ndio

   b.Hapana

4. Je, umewahi kupoteza mimba nyingine kabla ya hii?

   a.Ndio

   b.Hapana

5. Je, ulipoteza aje ujauzito huu?

a. Nilipigwa
b. Nilitumia dawa fulani.
c. Nilitumia madawa yasiyojulikana(kienyeji)
d. Kitu kiliingizwa kwenye njia ya uzazi nje ya kituo cha afya.
e. Kuvuja kwa hiari na kwa uchungu.
f. Mengine (taja)_____

SEHEMU YA B: HUDUMA YA DHARURA KWA AFYA

1.Je, ilichukua Muda Gani kwako kupokea huduma ya afya?

a) Chini ya masaa 24.
b) Zaidi ya masaa 24.
c) Zaidi ya wiki moja

2. Which of these problems did the patient present with? (TICK all that apply) **TO BE COMPLETED FROM CHART REVIEWS**

Bleeding	
Severe abdominal pain	
Sepsis /infection	
Uterine perforation/rupture	
Intestinal injuries	
Genital trauma	
Anaemia	
None	
OTHER (state)	

2. Which of these emergency services did the patient receive? (to be completed from chart reviews) choose all that apply.

	YES	**NO**
Vitals signs checked		
Evacuation using misoprostol		
Theater (MVA/ Dilatation and Curratage		
Antibiotics		
Intravenous fluids		
Blood transfusion		
Pain management		
HIV testing		

Treatment or testing for STIs		
None of the above		

3. Je, ulitosheka kwa jinsi ulivyotibiwa mara tu ulipoeleza shida yako kwa hospitali hii?

Mno	Kabisa	Kiasi	Kidogo	Sikutosheka	Sikutosheka kabisa
1	2	3	4	5	6

UHUSIANO WA HUDUMA YA AFYA

1. Je, hapa ni pahali pa kwanza kwako kutembelea kwa ajili ya huduma ya afya?
   a. Ndio.
   b. Hapana.
2. Ikiwa jibu lako ni hapana, je, ulienda wapi mara ya kwanza?
   a. Kwa pahali pa rafiki yangu.
   b. Kwa nyumba ya mkunga
   c. Kwa mtaalamu wa mitishamba
   d. Kwa zahanati au kituo cha afya
   e. Kwa duka la dawa
   f. Mengine(taja)_____
3. Ni kwa nini ulitumwa hapa?
   a. Ukosefu wa madawa
   b. Hakuna damu
   c. Hakuna daktari
   d. Kwa huduma maalum
   e. Chaguo la kibinafsi
   f. Mengine(taja)_____
4. Baada ya kuruhusiwa kuondoka hospitalini, je, daktari yeyote aliweza kukutembelea kuona unavyoendelea kiafya?
   a. Ndio
   b. Hapana
5. Kwa kutathmini kuanzia 1-6, je, ulitosheka aje kwa huduma uliyopokea ulipolazwa kwa hospitali?

Nilitosheka Mno	Nilitosheka Kabisa	Nilitosheka Kiasi	Sikutosheka kiasi	Sikutosheka	Sikutosheka kabisa

1	2	3	4	5	6

USHAURI NASAHA ULIOTOLEWA

1. Je, uliweza kuhisi hisia zozote kati ya hisia zifuatazo?

(Uchague zote zinazofaa).

a. Kuhisi kutokuwa mtu wa maana.
b. Kuhuzunika.
c. Kuwa na hatia.
d. Kuhisi kuhukumiwa.
e. Kuona haya.
f. Kusikitika.
g. Kutulia.
h. Zingine(taja)_____

2. Je, mtu yeyote aliweza kushughulikia hisia zozote zilizotajwa?
   a) Ndio
   b) Hapana
3. Je, kwa ubora upi hisia hizi ziliweza kushughulikiwa?

Bora mno	Bora kabisa	Bora kiasi	Bora kidogo	Haikuwa Bora	Haikuwa bora kabisa
1	2	3	4	5	6

4. Je, ulipokea mawaidha yeyote kutoka kwa wahubiri ulipokaa kwa hospitali?
   a. Ndio
   b. Hapana
5. Je, mawaidha ya wahubiri wa dini ilikusaidia aje?

Ilinisaidia mno	Ilinisaidia kabisa	Ilinisaidia kiasi	Haikunisaidia Kiasi	Haikusaidia	Haikusaidia mno
1	2	3	4	5	6

USHAURI WA KUPANGA UZAZI

6. Je, ulipokea ushauri wowote kuhusu aina tofauti za kupanga uzazi?
   a. Ndio
   b. Hapana
7. Je, ulipewa uchague upangaji wowote wa uzazi?

a. Ndio

b. Hapana

8. Ikiwa jibu lako ni ndio, je, ulichagua gani?

Tembe za kuzuia mimba kwa kumeza	
Kudungwa sindano ya miezi mitatu (depo Provera)	
Kudungwa sindano ya miaka mitatu au miaka mitano (jadelle/ norplant)	
Kuingizwa kidude cha kuzuia mimba kupitia njia ya uzazi(intrauterine device)	
Kondomu	
Kufunga uzazi kwa njia ya tubal ligation	
Hakuna	

9. Je, maelezo uliyopewa kuhusu kupanga uzazi yalikuwa bora kwa kukusaidia kupanga ujauzito wako wa siku za usoni?.

Bora zaidi	Bora Kabisa	Bora kiasi	Si bora Kiasi	Si Bora	Si bora zaidi
1	2	3	4	5	6

HUDUMA NA MASHAURI MENGINE YA UZAZI BORA

1. Je, unazo shida zozote kiafya ambazo sio zenye umezitaja?
   a. Ndio
   b. Hapana
2. Je, ulihudumiwa kwa shida hizo za kiafya?
   a. Ndio
   b. Hapana
3. Je, ulipimwa na kushauriwa kuhusu Ukimwi?
   a. Ndio
   b. Hapana
4. Je ulipolazwa kwa hospitali, mtu yeyote aliweza kukuelimisha kuhusu hatari zinazoambatana na kuafya mimba au kupoteza ujauzito?
   a. Ndio
   b. Hapana
5. Je,ulifundishwa vitu vya kufanya ikiwa utapata shida kwa ujauzito wako unaofuata?

a.Ndio

b.Hapana

6. Je, maelezo uliyopewa ni wa msaada kwako katika siku za usoni?

Inasaidia mno	Inasaidia kabisa	Inasaidia kiasi	Haisaidii Kiasi	Haisaidii	Haisaidii kabisa
1	2	3	4	5	6

Appendix III: Kipsigis Interview Guide

Fomitab Chamchinet En Inendet Ne Egu Agenge En Ichek Che Wolu Tebutik En Chigilisietab Kamatikab Sigisiet.

Koitetab chigilisiet:_____

Tarigit:_____

Chepkerichot Ne O Ne Yae Chigilisiet:

Dr. Mourine Melenia.

Kebeberta:Sipitalitab Tenwek Hospital.

Taunet:(Kiyae niton toretindetab chigilisiet)

Anendet ko a cheboitiot ne boisie en sipitalitab Tenwek facility.Asome atachin iegu agenge en ichek che wolu tebutik agobo chigilisietab kamatikab sigisiet.Si kobit inyoru imanit noton ko si imuch iguiye amu nee si iegu agenge en ichek che wolu tebutik, ko che isubu kebendi kearorun komie.

Tokchinetab ge nebo chigilisioni ko si kobit kenai komie ngot ko miten kamatik che kikomuch kobeet managenywan ak konyor ichek toretet ne kararan amun en nyalilwogik che nyoru ichek.

Ngot iyani iegu agenge en che wolu tebutik kesomin inyiit nafasisiek che mi tebutik .makisire kaineng'ung en tebutik chuton.Kibendi kisoisoni tebutik koyob koitosiek che kakinyoru en wolutik si kobit kotoret kogon naet ne nin kityo. Ng'alek che wolu kebendi kekonori en ung'at. Kanyitetab tebutik ko magoi koib kasarta ne koi.

Ng'oiyondit Ne Imuchi Kobit Eng' Chigilisiet

Echek ko mokimongu komi ng'oiyondit agetugul. Itiagat ilewen iegu agenge en che wolu tebutikana iesie.Tileng'ung ko magoi keboisien kiruogun ngot ilewen iesie iwolu tebutikche kitebe.

Ung'utiet

Ng'alek che kibendi kiyumi kekonori en ung'at .Wolutikab chigilisiet ak sirutik ko magoi kobor kaineng'ung.

Melekto.

Makimuchi kegonin melekto age tugul anan ko konunotiot amun kelewen iegu agenge en che wolu tebutik kobaten kimwaun kongoi amun en kasetab it ne keyan iegu agenge en ichek che wolu tebutik .

KAYONCHINET AK INENDET NE WOLU TEBUTIK.

Sirutik che kigisir koboru;

_____tarigit_____/___ /_____

Ayani ale kaamuch aaroru kit ne u ak tokchinetab chigilisiet en inendet ne egu agenge en che wolu tebutik noton koitetab kainenyin ko_____

Chiletab siyetab inendet ne kanyor chamchinet_____

TEBUTIK

KANYOISET AK RIPSET NE NYOLU YE KAKO GOTENOK LAKWET NE TOM KOIT KASARTAB SIGET EN RUONDAB MO NE BO KAMATIK CHE BWONE SIPITALISIEK OENG' EN KAUNTI NE BO BOMET.

NAETAB KAINET.

Koitetab inendet ne kinyor kagotenet ak kowolu tebutik _____

KOITETAB SIGISIET EN NGANASET

1 Tos itinye kenyisiek ata ?

2 Tos kotuneng'ung' ko nee?

a) Tomo kitunin
b) Kikitunin
c) Kiotiachge ak moning'otiondengu'ung'(divorce)
d) Kiobesie ak moning'otiondeng'ung'

5.0 Kiimuch iit ano en somaneng'ung ?Momiten

a) Primary
b) Secondary
c) Sugulitab musoknotet (college)
d) Sugulitab barak (university)

3.Tos ne kit ne gonin melekto?

a) Boisiet ne kikisirin
b) Mung'aret (jua kali)
c) Toretet koyob bikab gaa
d) Momiten

KEBEBERTA NE TAI

NG'ALALET AGOBO KIT NE KI U MANAGET

1. Tos kiimuch imanach konyil ata?_____
2. Tos kibo kasarta ne tian manageng'ung'?
3. Wigit anan arawek anan betut ne tai ye kin imi betusiek?
4. Tos kiketet imanach?
   a) Ee
   b) Achicha
5. Tos mi kasarta ne kiimenge managegung' ne ma inoni?
   a) Ee
   b) Achicha
6. Tos kikayaak nee si imenge manageng'ung'
   a) Kikigotenon
   b) Kikaboisien kerichek alak tugul
   c) Kikaboisien kerichek che makiguitos (kerichekab kipgaa)
   d) Kikitorchi kit oretab sigisiet en ole lo ak sipitali.
   e) Kimong' korotik ichegen ko ma en chamet ago ki ng'wan mising.
   f) Alak (arorun)_____

KEBEBERTA NE BO OENG'
TORETET EN CHOKCHINET NE BO CHAMETABGE NE BO BORTO.

1.Tos kiib kasarta ne tian si nyoru toretet ne bo chametabge ne bo borto?

a) Mosir saisiek 24.
b) Saisiek che sire 24.
c) Betusiek che sire wigit agenge.

2. Which of these problems did the patient present with? (TICK all that apply) TO BE COMPLETED FROM CHART REVIEWS

Bleeding	
Severe abdominal pain	
Sepsis /infection	
Uterine perforation/rupture	
Intestinal injuries	
Genital trauma	
Anaemia	

None	
OTHER (state)	

3. Which of these emergency services did the patient receive? (To be completed from chart reviews) choose all that apply.

	YES	NO
Vitals signs checked		
Evacuation using misoprostol		
Theater (MVA/ Dilatation and Curratage		
Antibiotics		
Intravenous fluids		
Blood transfusion		
Pain management		
HIV testing		
Treatment or testing for STIs		
None of the above		

4. Tos kiiyamage en ole kikitoretiten kin ko kemwa en kasaraton kaimutieng'ung' en sipitali ini?

Kiayamage missing ine	Kiayamage mising	Kiayamage Ngele gele	Kiayamage Kiten	Mayamage	Mayamage Missing
1	2	3	4	5	6

KAROGENDOETAB TORETOSIEK ALAK CHE BO CHAMETABGE NE BO BORTO

1. Tos iyeyu ko ki ne tai inyon inyoru toretet ne bo chametabge ne bo borto?
   a) Ee
   b) Achicha
2. Ngot ko wolutieng'ung ko achicha ko tos ano ole ki iwe en kasarta ne bo tai? Gotab choruenyun
   a) Gotab toretindetab sigisiet (mid- wife)
   b) Gotab chepkerichot ne igoitoi kerichekap kipgaa
   c) Sipitali
   d) Tugetab kerichek

e) Alak (mwa)

3. Tos nee kit ne kiyain kiyogun inyon sipitali yu?
   a) Rorunetab kerichek.
   b) Momi korotik.
   c) Momi daktari.
   d) Si kobit anyor toretet ne inegen
   e) Ki aleweni anegen.
   f) Alak (arorun)
4. Ye kinkiyonun imande en sipitali ko tos ki imuch korutechin chepkerichot agetugul kogeer ole itestoi tai?
   a) Ee
   b) Achicha
5. Asi kimuch kiguiyo komie kinamen agenge agoi lo, tos kiigerte ano toretet ne kiinyoru ye kin kekerin en sipitali?

Kiayamage mising ine	Kiayamage mising	Kiayamage ngele gele	Kiayamage kiten	Mayamage	Mayamage Mising
1	2	3	4	5	6

KOTIGONUTIK AK CHERUTIK CHE KIKIGON

1 Tos kiimuch igas ne ngalek che isibu?

a) kiagas ko u a chito ne mabo komonut.
b) kiaimge mising'
c) kinaman lelutiet
d) kiagas koyomege kiruokwon
e) kialilan
f) kianyalil
g) kiamuny
h) Alak (mwa choton)

2. Tos kiimuch chi kotigonin ak kocherin en tuguchu kaking'alalen?

(a)Ee
(b)Achicha

Tos kinyolu toretet ne kikitoretin en tuguchu ki imuch ibun?

Ki kararan	Mayait	Ki mi yon	Kikararan	Kimakarara	Kimakarara

mising toretet	toretet	toretet	kiten toretet	n toretet	n toretet mising’
1	2	3	4	5	6

2. Tos kiinyoru kotigonet ak cherset koyob amdoik ye kin imi sipitali?

(a)EE

(b)ACHICHA

3. Tos kiimuch kotoretin kotigonutik ak chersosiek koyob amdoik?

Kitoreton Mising Ine	Kitoreton mising	Kitoreton kiten	Kitoreton Ngele gele	Motoreton	Motoreton mising ine
1	2	3	4	5	6

CHERSETAB PANGANETAB SIGISIET

4. Tos kiimuch inyoru chersetab panganetab sigisiet agetugul?

a) Ee

b) Achicha

5.Tos kikigonin ilewen panganetab sigisiet agetugul?

a) Ee

b) Achicha

6. Ngot ko wolutieng’ung’ ko Ee, ko tos kiilewen ainon en chu isubu?

Kerichek che kilugui
Kerut sindanutab arawek somok
Kerut sindanutab kenyisiek somok anan kenyisiek mut
Kinde uzit ne tere sigisiet en oretab sigisiet (intrauterine device)
Momiten

7. Tos ng’alek che kikimwaun konamge ak panganetab sigisiet ko ki nyolu kotoretin sikobit itet sigisieng’ung’ en betusiek che bwone?

Nyolu mising ine	Nyolu mising	Nyolu kiten	Manyolu Kiten	Ma nyolu	Ma nyolu Mising ine
1	2	3	4	5	6

TORETET AK CHERUTIK ALAK KONAMGE AK SIGISIET NE NYOLU

1.Tos itinye kaimutik alak tugul konamge ak chametabge ne bo borto che ma chu kaimwa?

a) Ee

b) Achicha

2. Tos kiinyoru toretet en kaimutik choton bo borto?

a) Ee

b) Achicha

3. Tos kikichigilin ak kecherin konamge ak miandab Ukimwi? Tos ye kin kekerin en sipitali ko tos kiimuch chi agetugul konetin agobo ng'oinyondisiek che ibu kororogunetab moet en chamet anan yon ko mong' moet ko ma chamet?

a) Ee

b) Achicha

4. Tos kikinetin tuguk che nyolu keyai yon kenyoru ng'oiyondit en manageng'ung ne nyone?

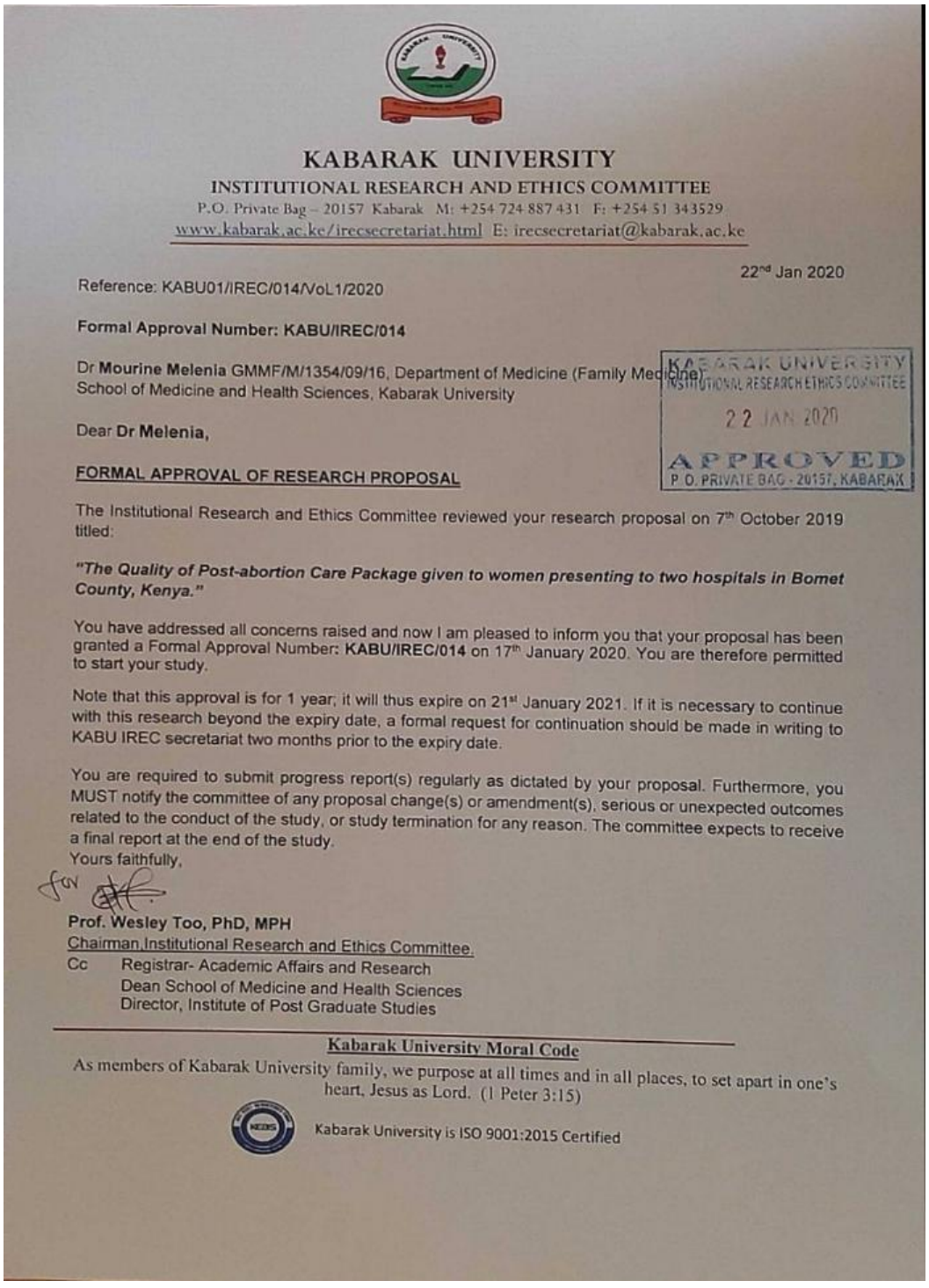
a. Ee

b. Achicha

5. Tos ng'alek che kikimwaun ko bo komonutiet en inyendet en betusiek che bwone?

Bo komonutiet mising ine	Bo komonut mising	Bo komonut kiten	Mo bo komonut Kiten	Mo bo komonut	Mo bo komonut mising ine
1	2	3	4	5	6

Appendix IV: University Research Authoization Letter



KABARAK UNIVERSITY
INSTITUTIONAL RESEARCH AND ETHICS COMMITTEE
P.O. Private Bag – 20157 Kabarak M: +254 724 887 431 F: +254 51 343529
www.kabarak.ac.ke/irecsecretariat.html E: irecsecretariat@kabarak.ac.ke

22nd Jan 2020

Reference: KABU01/IREC/014/VoL1/2020

Formal Approval Number: KABU/IREC/014

Dr **Mourine Melenia** GMMF/M/1354/09/16, Department of Medicine (Family Medicine)
School of Medicine and Health Sciences, Kabarak University

KABARAK UNIVERSITY
INSTITUTIONAL RESEARCH ETHICS COMMITTEE
22 JAN 2020
APPROVED
P. O. PRIVATE BAG - 20157, KABARAK

Dear **Dr Melenia,**

FORMAL APPROVAL OF RESEARCH PROPOSAL

The Institutional Research and Ethics Committee reviewed your research proposal on 7th October 2019 titled:

"The Quality of Post-abortion Care Package given to women presenting to two hospitals in Bomet County, Kenya."

You have addressed all concerns raised and now I am pleased to inform you that your proposal has been granted a Formal Approval Number: **KABU/IREC/014** on 17th January 2020. You are therefore permitted to start your study.

Note that this approval is for 1 year, it will thus expire on 21st January 2021. If it is necessary to continue with this research beyond the expiry date, a formal request for continuation should be made in writing to KABU IREC secretariat two months prior to the expiry date.

You are required to submit progress report(s) regularly as dictated by your proposal. Furthermore, you MUST notify the committee of any proposal change(s) or amendment(s), serious or unexpected outcomes related to the conduct of the study, or study termination for any reason. The committee expects to receive a final report at the end of the study.

Yours faithfully,

for

Prof. Wesley Too, PhD, MPH
Chairman,Institutional Research and Ethics Committee.

Cc Registrar- Academic Affairs and Research
Dean School of Medicine and Health Sciences
Director, Institute of Post Graduate Studies

Kabarak University Moral Code

As members of Kabarak University family, we purpose at all times and in all places, to set apart in one's heart, Jesus as Lord. (1 Peter 3:15)

Kabarak University is ISO 9001:2015 Certified

Appendix VI: Tenwek IREC Authorization letter

TENWEK HOSPITAL

A ministry of Africa Gospel Church

Postal Address
P.O. Box 39 Bomet – 20400 Kenya
Tel: (254)0728-091900,0735-580580/
020 -2045542
Fax: 020-2-45416/5375
E-mail: tenwek@tenwek.com
Website: www.tenwekhospital.org

4th December 2018

Dear Dr. Mourine Melenia,

Regarding your research proposal titled:

"Methods, complications of abortion and quality of post abortion care in Bomet County"

Your proposal was reviewed by the Tenwek Hospital Institutional Research and Ethics Committee on 16th October 2018 later the corrections you addressed from your letter dated 16th November, you have satisfactorily addressed the IREC issues via the documents you submitted to us.

The Tenwek Hospital IREC approves your research proposal. If any issues arise with the study or its conduct, inform the IREC immediately through *researchmanagertenwek@gmail.com*. Any protocol deviations or amendments should be submitted to the IREC for approval. All adverse events should be reported in writing immediately (within 5 business days) to the IREC through the email above. Any clearances and requirements for material transfer should comply with international standards.

This approval will expire on 4th December 2019. Kindly provide an update at one year or at the completion of study, whichever is sooner.
Blessings!

Sincerely,

MEDICAL SUPERINTENDENT
TENWEK HOSPITAL
P. O. Box 39
BOMET - 20400

Stephen L. Burgert, MD
Medical Superintendent
IREC Chair

Appendix VII: NACOSTI Research Authorization

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: 468832

Date of Issue: 12/September/2019

RESEARCH LICENSE

This is to Certify that Dr.. MOURINE MELENIA of Kabarak University, has been licensed to conduct research in Bomet on the topic: THE QUALITY OF POST ABORTION CARE PACKAGE GIVEN TO WOMEN PRESENTING TO TWO HOSPITALS IN BOMET COUNTY. for the period ending :.12/September/2020.

License No: NACOSTI/P/19/619

468832

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

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