

The Quality of Post Abortion Care Package Offered to Women Presenting to Two Referral Hospitals in Bomet County

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Abstract

In 2011, WHO reported 56 million abortions worldwide majority in the developing world. Maternal mortality in Kenya is 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 aims to determine if all the elements of CPAC are offered to women presenting to hospitals in Bomet County. A quantitative Cross-sectional study was undertaken at two referral hospitals in Bomet County. 100 respondents who presented with abortion complications were surveyed in three months with a mean age of 26.6 years. Results indicate poor access to care with 70% accessing care after 24 hours despite life threatening complications. Gaps were noted in contraceptive uptake with only 36% getting a contraceptive at discharge and of these, most were short-term methods. Young people less than 25 years were less likely to be given a contraceptive unlike their counterparts in the faith-based facility OR 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 counseled for HIV and STIs. Linkage to care was poor indicated by late access to care, there was an improper referral system and inadequacies in follow-up after discharge were also noted. Only 30% of the respondents received the whole CPAC package as required. Results indicate gaps in how frequently the elements of CPAC are provided which affects quality. Efforts need to be put in place to advocate for adherence to CPAC as stipulated in the guidelines with the aim of reducing maternal mortality.

Key words; Comprehensive Post Abortion Care, Abortion, Holistic care, Quality

Introduction

According to a WHO report by Ganatra et al, (2017), almost 56 million abortions occur every year worldwide, 99% in developing 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. In Kenya, nationwide study by Sedgh, et al (2017) estimated that close to half a million abortions occurred in Kenya in 2012 mostly induced and unsafe. 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, & Abdhahah, 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).

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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).

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, & Gessesew, 2013).

Data derived from statistics departments from the two hospitals in 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. Current observation 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.

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 an induced 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. The purpose of this study is to evaluate the compliance of hospitals 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.

Broad Objective

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

Specific objectives of the study

1. 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
2. To find out what percentage of women actually received the whole Comprehensive Post abortion package

Significance of the study

- i. 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.
- ii. 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.
- iii. 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.

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.

Study limitations

- i. 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.
- ii. 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.

Delimitations of the study

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

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.

LITERATURE REVIEW

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 abortion with 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.

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 noting substandard 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).

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 post-abortion care and mental health problems experienced by these women were not captured. 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.

Research Design and Methodology

A quantitative cross-sectional study on the quality of post-abortion care given to women presenting to two hospitals in Bomet County, Tenwek Mission Hospital and Longisa County Hospital. These two hospitals are capable of offering quality emergency obstetric care as they have the equipment and qualified personnel.

Sampling procedure

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.

Sample size

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; $20\% \leq C \leq 30\%$,

e = error margin; $0.02 \leq e \leq 0.05$.

Substituting these values in the equation, the estimated sample size (n) was 83 but 100 interview guides were issued to account for the margin of error. The study was conducted in the three months and all women who presented with pregnancy loss were recruited.

Inclusion criteria

- i. All women who presented to the two hospitals due to abortion-related complications.
- ii. 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 was impossible.

Exclusion criteria

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

Data collection Procedures.

Two female research assistants were recruited and trained to familiarize with the interview guide and the objectives of the study. The interviewers were fluent in English, Swahili and Kipsigis languages as the interview guide was translated into these three languages. The interview was conducted in a secure, safe and comfortable room to ensure confidentiality. 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 guide was used. Data on emergency care services received was filled directly from patient files. 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 interview guides were delivered sealed to the research assistants. 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. No names appeared on the interview guide. Information obtained was treated with utter confidentiality, no key identifiers of the participants were on the interview guide and they were kept safely after interviews.

Validity and reliability of the study tool

The study tool was internally Validated and content Validity was also applied. A Cronbach's alpha of 0.888 which was calculated after pretesting the study tool confirmed acceptable reliability of the interview guide. Hence approving internal consistency of the interview guide (Mondal & Mondal, 2017).

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.

Ethical considerations

Permission to do the study was sought from the two hospitals from the IREC committee and also Kabarak 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

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 was not disclosed to the guardian unless the participant permitted. No legal issues arose during the study. Participation was voluntary without coercion or incentives.

Results

Socio demographic Data

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%. 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. An estimate of 71% of the losses were spontaneous abortions while 26% were induced and 3 respondents lost the pregnancy due to trauma from assault.

Emergency Services

Table 1 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

Table 1 shows 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 2 *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 2 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.

Counseling Services and Spiritual Care

Table 3 *Feelings Experienced by Patients*

Feelings	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 4 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 4, 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.

Access to Family Planning Services

Table 5 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 6 Family planning provision according to age groups and facility type

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

Tables 5 and 6 show 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 7 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 7, 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%.

Provision of Other Reproductive and Medical Health Services

Table 8 Whether Underlying Conditions Were Addressed

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

From table 8, it is evident that only 9 patients out the 100 respondents reported 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 9 *Testing and Counseling on HIV and STIs*

		Those tested and counseled about HIV and STIs	
		Yes	No
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 9, 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.

Linkage to Care

Table 10 *First place of presentation for care*

			Frequency N=100
These two hospitals?	Yes	61	61
	No	35	35
	X	4	4

Table 11 *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 10 and 11, 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 12 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 12 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 13 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%
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 13 shows that, generally, access to post abortion care was poor only 30% being able to access emergency 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 have received at least one or two of the required services.

Discussion

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 most of 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, Gerdt, & 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.

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 field can be trained to appropriately use it especially where surgical management may be delayed or is lacking (Huber, Curtis, Irani, Pappa, & Arrington, 2016)

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; inaccessibility, 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, & Gerds, 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 contraceptive 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 (3 months 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 24 years 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, & Brahm, 2014)

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)

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)

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 enable women in the community to 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.

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 element are 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.

Summary, Conclusions, And Recommendations

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 SDGs and 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.

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.

Recommendations

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.

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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