NURSES KNOWLEDGE TOWARDS POST ABORTION CARE IN TIER THREE HEALTH FACILITIES IN NAIROBI COUNTY-KENYA

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NURSES KNOWLEDGE TOWARDS POST ABORTION CARE IN TIER THREE HEALTH FACILITIES IN NAIROBI COUNTY-KENYA

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Abstract

Purpose: The purpose for this study was to determine nurses' knowledge towards post abortion care practices in tier three health facilities in Nairobi County-Kenya

Methodology: This was a descriptive cross-sectional survey, which applied mixed research methods targeting population of 616 nurses working in Nairobi county tier three health facilities that provide post abortion care services. A sample size of 242 nurses derived from the target population. Data was collected through stratified and simple random sampling then cleaned and analyzed using statistical package for social sciences version 24. Descriptive statistics used to describe and summarize data while inferential statistics used to test hypothesis

Findings: The study found that majority55 percent of the nurses had no pre-service training on post abortion care, majority had obtained on job-training and in-service training on post abortion care. The nurses knowledge was average at 51.21% with a very strong positive correlation at r = 0.918 and a composite mean of 3.31. There was sufficient evident to reject the null hypothesis and a significant association was declared when p-value was less than 0.05. The p-value for Ho1 and Ho2 were 0.00.

Unique contribution to theory, practice and policy: The study recommended that nurses' pre-service curriculum should be reviewed to include post abortion care training, the government should consider continuous professional development on post abortion care as increase in knowledge to increase post abortion care practice.

Keywords: *Knowledge, Post Abortion Care*

1.0 INTRODUCTION

The health of women represents the health status of any country. Reproductive health is an important component of general health of women and while reproductive health starts with conception, reproductive ill health starts with infection (Basavanthappa, 2010). More than ninety-nine percent of maternal deaths occur in the developing world. The majority of the deaths are caused by direct obstetric complications, including hemorrhage, sepsis, eclampsia, obstructed labor, and unsafe abortion practices. Post-abortion care (PAC) is an integrated service that includes emergency treatment of complications, counseling and practice of contraceptives and sexually transmitted infections (STI) services, providers training, and community empowerment through awareness-raising and social mobilization (WHO, 2014). In Africa, abortion is a taboo and complicated by the fact that access to contraceptives is still limited in Africa, largely due to cultural beliefs that limit women's access to essential contraceptives (WHO, 2012). About a fifth of all pregnancies in these countries are terminated through illegal and risky means. About 21,000 women are admitted with abortion related complications annually (CRR, 2015).

A third of the women treated are usually in their second trimester. Only 16% of the health delivery institutions can perform the manual vacuum aspiration procedure, which uses suction to empty the uterus and is the preferred method recommended by the World Health Organization (WHO, 2014). Lack of post abortion care is debilitating and sometimes-fatal as such post-abortion care is an essential healthcare services that seek to respond to the reproductive healthcare needs of Women. Nairobi County is among the 15 counties with the highest burden of maternal mortality (UNFPA, 2016). A Study on maternal mortality in urban slums in Nairobi estimated the maternal mortality ratio in the slums to be 706 deaths per 100,000 live births with thirty one percent of these deaths arising due to abortion complications (Ziraba AK, 2009). Nairobi County has four tier three hospitals and according to Ministry of Health "Clinical Management and Referral Guidelines Volume III" (2009) nurses in tier three health facilities are supposed to offer post abortion care (MOH, 2009).

In most Sub-Saharan Africa health services have always been under-funded in Kenya 90% of all maternal deaths are due to sub-standard care (MOH, 2017). Nairobi County is the smallest County but the most populous county in Kenya. It is stated that 31% of maternal deaths in Nairobi are attributed to abortions which are not properly managed (Ziraba, 2015).There are 45 hospitals in Nairobi County with bed capacity of 6,990. There are 141 health, 200 dispensaries and 551 Clinic. The public health workforce in the

county is 3695 comprising mainly of nurses, clinical officers and public health officers. The unmet need for family planning amongst the urban poor remain a big challenge due to the question of commodity accessibility and affordability (Nairobi City County, 2017).

Nairobi has 45% of women in their reproductive health age who are either not aware of contraceptives or do not use contraceptives (KNBS, 2010). According to the Kenyan Constitution 26(4) abortion is not permitted unless in the opinion of a trained health professional (GOK, 2010) and the Health Act (2017) describes the trained health professional as a doctor, nurse, midwife or clinical officer (GOK, 2017) . Nurses form the largest group at 34% of the 3685 health workforce in Nairobi County (Nairobi City County, 2017). Thus the need to determine the knowledge and perception of nurses towards post abortion care.

1.2 Problem Statement

Worldwide 75 million women need post abortion care (PAC) services each year following safe or unsafe induced abortions and miscarriages. According to World Health Organisation 45% of abortions were unsafe every year between 2010 and 2014 and 97% of these occurred in developing countries (Ganatra B, 2017). Unsafe abortion is one of the most easily preventable causes of maternal ill health and death however; it causes approximately 13% of all maternal deaths and approximately 20% of the overall burden of maternal death as well as long-term sexual and reproductive ill health (WHO, 2014).

According to a study by Chandra-Mouli (2013), the high mortality rates and high rates of complications are emanating from lack of sufficient post abortion care in developing countries, compared to the developed countries. However, the Kenya PAC pilot project demonstrated that nurse/midwives and other non-physician health professionals if trained could safely and effectively provide post abortion care services to patients visiting their health facilities with incomplete abortion related complications using manual vacuum aspiration procedure (PRIME, 2000).

A retrospective study by Douglas et al (2016) reviewed more than 550 studies on PAC published between 1994 and 2013 in the peer-reviewed and grey literature. These studies confirmed the safety, effectiveness, and acceptability of trained nurses and midwives as providers of MVA, affirming their ability to accurately determine complete evacuation (Douglas, 2016).   Despite this, women continue to die of unsafe abortion due to access, delay in getting service and poor quality of care. Treating a typical unsafe abortion complication takes an average of 7.4 hours mostly spent by nurses or clinical officers; however, there are limited studies on nurses' knowledge, perception and practices in Nairobi County (Ministry of Health, African Population and Health Research Center and

Ipas, 2018). Being one of the counties with the highest maternal mortality rate, the researcher found it was therefore important to establish knowledge and perception of nurses towards post abortion care practices in tier three health facilities in Nairobi county-Kenya.

1.3 Study Objectives

i.   To assess the level of nurses knowledge on post abortion care practice in tier three health facilities in Nairobi County-Kenya.

ii. To determine the association between nurses knowledge and post-abortion care practices in tier three health facilities in Nairobi County-Kenya.

iii. To establish the relation nurses knowledge and   post-abortion care practices   in tier three health facilities in Nairobi County-Kenya

2.0 CONCEPTUAL FRAMEWORK

Theoretical and conceptual frameworks give life to a research. A research without the theoretical or conceptual framework makes it difficult for readers in ascertaining the academic position and the underlying factors to the researcher's assertions and/or hypotheses. The importance of the study and the scholars of the researcher is in dialogue with, whether in agreement or disagreement (Hussein, 2018). Theories are constructed in order to explain, predict and master phenomena. A theory generalizes about observations and consists of interrelated, coherent set of ideas. The idea behind this study is about quality Improvement in health care which involves the application of quality management principles and tools. This study adopted "structure-process-outcome" framework described by Donabedian.

Donabedian model provides a framework for examining health services and quality of care. In this study, the structure refers to the post abortion care practices. Nurses working in Tier three hospitals in Kenya are supposed to provide post abortion care services. Post abortion care is a sensitive service as many clients present with unsafe abortion. Women use various method to induce abortion, as such Nurses are required to possess the necessary competencies to provide the post abortion care services.

A conceptual framework was used to outline the preferred approach in answering the study questions are shown in Figure 1.
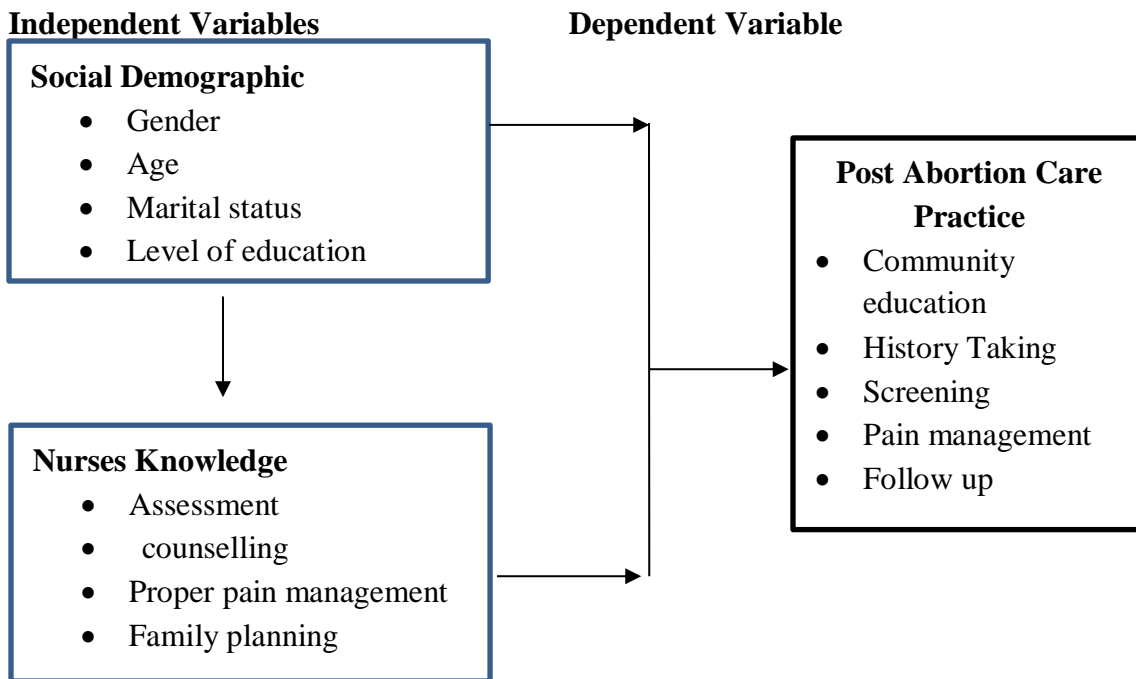
Independent Variables   **Dependent Variable**

Figure 1: Conceptual Framework

2.1 Nurses Knowledge.

Knowledge is often defined as a belief that is true and justified. This has led to its measurement by methods that solely rely on the correctness of answer (Hunt, 2003). In today's world, nurses are challenged to make quick yet critical and informed decisions about variety of patients and their problem in a complex and rapidly health care landscape (Basavanthappa, 2010). In sub-Saharan Africa where 90% of global maternal deaths occur, nurses are the frontline health care workers (WHO, 2013). A cross-sectional study carried out in Kisii District in the western part of Kenya between April 1 and April 28, 1991, with the objectives of ascertaining the attitude of 218 nurses towards induced abortion, patients, and their involvement in abortion nurses displayed a deficient knowledge of all aspects of induced abortion (Kidula NA, 1992).

3.0 METHODOLOGY

Both quantitative and qualitative methods were selected for this study. A research design is a plan, structure and strategy of investigation whose primary purpose is to obtain answers to research questions and control variance (Basavanthappa, 2010). This study adopted a non-experimental descriptive cross-sectional survey to establish knowledge and perceptions of nurses towards post abortion care practices in tier three health facilities in

Nairobi county-Kenya. Investigators who use non-experimental designs endeavour to trace relationships between variables that will provide deeper insight into the phenomena of interest (Basavanthappa, 2010). The main feature of this study was to describe specific characteristics of nurses, through self-administered questionnaires (Jaeger, 1988). Besides, the design was used because of its descriptive nature in order to assist the researcher in collecting data from nurses in tier three public health facilities in Nairobi County. The study was undertaken in April 2019 and only nurses who met the eligibility criteria were included in the study.

According to Ogula (2005), a population refers to any group of institutions, people or objects that have common characteristics. The target population for this study were nurses working in county referral facilities (Tier 3) in Nairobi County that offer abortion care services. Nurses were selected since they account for 34% of the entire workforce of the county and are largest group of health care workers providing frontline health care services. A reconnaissance survey of all the county referral facilities (Tier 3) was conducted prior to data collection. The County has four Tier 3 health facilities namely Pumwani, Mbagathi, Embakasi (Mama Lucy Kibaki), and Dagoretti (Mutuuini). Six hundred and sixteen Nurses working in these facilities were the unit of analysis. Determination of the proper sample size is crucial in any study in which a sample has to be taken. This is because the size of the sample is the one of the most important determinants of the accuracy of research results (Basavanthappa, 2010). In this study, Yamane & Taro (Yamane, 1967) provides a simplified formula to calculate the sample size calculation on the simplified formula. Therefore: $n = N/1+N (e)^2$ Where n = is the desired size of the sample. N is the size of the population that in my case was 168+192 +172+84=616. e = is the level of precision level at 0.05 at 95% confidence interval. $n = 616/1+616*0.005^2$=**242.**

All nurses who met the eligibility criteria, which was being a qualified nurse working in the selected facilities and voluntarily consenting to the study were included in the study. Those who were sick, on leave or on official duties away from the workstation during data collection were excluded. This was to ensure a homogenous group of respondents. If a population is not heterogeneous, a small group can represent them (Basavanthappa, 2010). Data serve as the raw as materials for analysis without which no specific inferences can be drawn on the questions under study. Data provide the facts required for constructing measurement scales and tables (Basavanthappa, 2010). The questionnaire had four main section one for socio-demographic characteristics, the other one for knowledge and the third part was on perception while the last part was on post abortion care practices. The key informant guide was to triangulate the data collected using questionnaire. Nursing services

managers were selected for the key informant interviews as they hold crucial information related to the study. The researcher sought ethical clearance from Kenyatta University Graduate School REF: P57/20433/10, Kenyatta University Research and Ethical Committee PKU/357/1331 as well as the National Council for Science, Technology and Innovation (NACOSTI) Permit No Ref. No NACOSTI/P/18/5883/4997 and Nairobi County Government research authorization REF: GL/NC/141/VOL.VI/103 upon fulfilment of the pre-requisite requirements and statutory fees. Prior to data collection, the researcher recruited and trained four-research assistants on ethical considerations (informed consent and data security) during data collection.

4.0 RESULTS AND DISCUSSION

Table one shows the researcher distributed 267 questionnaires where 199 of the 242 required were returned representing 82% of the respondents 18% non-response. The response rate was considered adequate for the analysis. One hundred percent response rate was not attained because the questionnaires were administered through drop and pick method. According to Mugenda and Mugenda (2003), data analysis can be done if you have at least 50% thus 82% response was considered adequate for data analysis in this study. Some of the respondents did not return the questionnaires while some were absent during the picking time.

4.1 Socio-demographic data of the Respondents

The study sought to establish socio-demographic data of the respondents who took part in this study. As indicated in Figure 2, only 30.8% of the respondents were males while majority 69.2% were females. The study sought to establish socio-demographic data of the respondents who took part in this study. On post abortion care training, majority of the respondents (54.9%) had not attended training on post abortion care, 16.9% had attended on-job training and 10.3% of them attended in service training on post abortion care while 17.9% had attended training on post abortion care during pre-service.
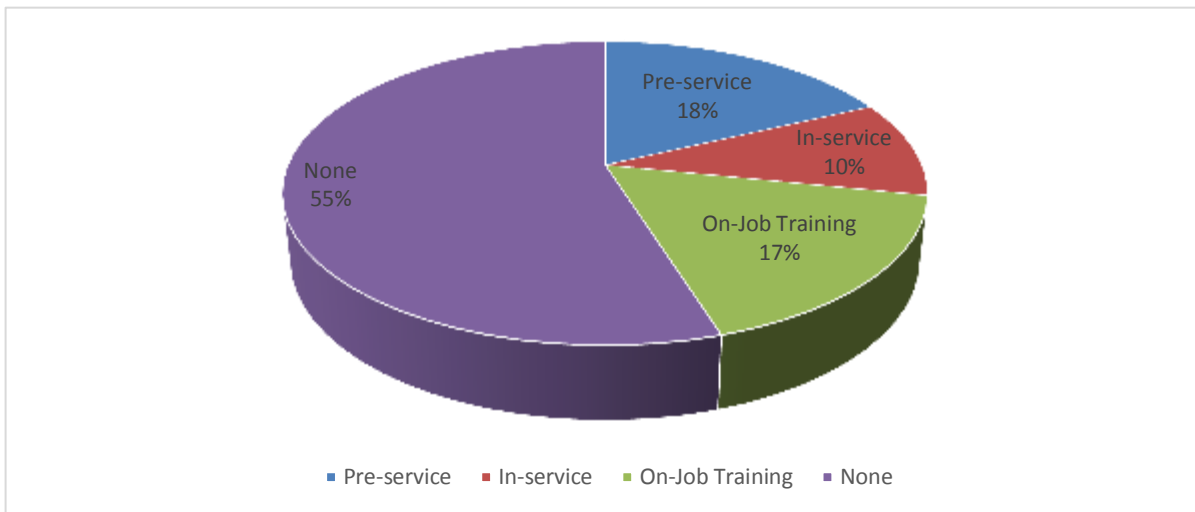
Figure 2: PAC training of the Respondents (n=195)

Source: Author (2019)

4.2 Post Abortion Care Practices

The study establish post abortion care practices among nurses in tier three health facilities within Nairobi County-Kenya. Table 4.3 shows various statements on the extent to which nurses participate in post abortion care practices. On integration of post abortion services with other Reproductive Health Services, majority of them (60%) indicated it was very low. On the extent to which nurses provide guidance and counselling on prevention of unwanted pregnancy to women seeking post abortion care services, majority of them (43.1%) indicated it was low.

On the extent to which nurses offer post abortion care pain relief to women seeking abortion services, Forty two percent indicated it was high. On the extent to which the hospital adhere to infection prevention protocols in regards to post abortion care, majority of them (52.3%) indicated it was high. On the extent to which the hospital applies the current technology in management of post abortion services, majority of them (75.3%) indicated it was very low. On the extent to which nurses are conversant to post abortion laws and guidelines as stipulated in the constitution, majority of them (74.4%) indicated it was very low. On the extent to which the existing policies on referral on unsafe abortion cases are adhered to, majority of them (68.8%) indicated it was high.

Table 1: Post Abortion Care Practices (n=195)

Statements	L F (%)	M F (%)	H F (%)	Mean	S.Dev
To what extent do you integrate post abortion services with other Reproductive Health Services?	117(60)	34(17.4)	44(22.6)	2.32	1.359
To what extent do you provide guidance and counselling on prevention of unwanted pregnancy to women seeking post abortion care services?	84(43.1)	59(30.3)	52(26.6)	2.79	1.359
To what extent do you offer post abortion care pain relief to women seeking post abortion services?	63(32.3)	49(25.1)	83(42.6)	3.20	1.345
To What extent does the hospital adhere to infection prevention protocols in regards to post abortion care	45(23.1)	48(24.6)	102(52.3)	3.40	1.349
To what extent does the hospital apply the current technology in management of post abortion services?	147(75.3)	29(14.9)	19(9.8)	1.95	1.071
To what extent are you conversant to post abortion laws and guidelines as stipulated in the constitution?	145(74.4)	17(8.7)	33(16.9)	2.14	1.263
To what extent are the existing policies on referral on unsafe abortion cases adhered?	33(16.9)	28(14.4)	134(68.8)	3.77	1.155
Composite Mean				**2.51**	

Source: Author (2019)

The composite mean was used which was obtained using the means of each statement. The rating scale adopted was as follows; (1.0-1.7)-Low, (1.8-3.3)-average, (3.4-5.0)-High. The findings established that the post abortion care practices were generally average as indicated by a composite mean of 2.51. The findings from the

respondents align with the information from the Key informant interviews. According to all the key informants, post abortion care services are offered in their respective facilities. However, the post abortion care services differed from one facility to another. At Mbagathi and Pumwani tier three hospitals, *screening is done and only very serious emergencies requiring theatre are admitted. The rest of the clients are referred to other facilities*. At Mutuuini Tier, three hospital PAC *clients are assessed and referred to other hospitals*. At Mama Lucy Tier, three hospital PAC clients are offered all the services and only conditions that cannot be managed at the facility are referred or there when there is stock out of PAC commodities like the MVA kits. According to one of the Key informants, *"The County doesn't allocate budget for post abortion care and they rely on partners"*

4.6 Post Abortion Care knowledge

This study further sought to establish the general rating of each statement on nurses' knowledge on post abortion care practice in tier three hospitals in Nairobi County. The rating scale based on the mean scores adopted was as follows; (1.0 - 1.7)-Disagree, (1.8-3.3)-Uncertain, (3.4-5.0)-Agree. The findings on table 4.3 indicated that slightly less than half (42.5%) of the respondents agreed that nurses should provide enabling environment for Post abortion care, On assessment as to whether nurses should offer High quality post abortion education to women and in the community, only (48.7%) of the nurses agreed.   This shows that nurses were uncertain on whether to offer enabling environment and community outreaches on post abortion care.

Nurses should offer high-quality counselling related to post abortion care, majority of them (60%) agreed but only 32.8% agreed that nurses should effectively provide integrated post abortion care. When a patient in pain is receiving analgesic medication on a "p.r.n." (when necessary) basis, it is appropriate for the patient to request pain medications before the pain returns, (48.2%) agreed. while 54.8% agreed that nurses should Provide immediate post-abortion contraception (including IUDs, implants, DMPA). This implies that nurses are ready to provide post abortion contraception however there is need to update their knowledge on pain management and integration of post abortion care with other reproductive health services. Only 36.9% agreed that nurses should provide high quality sexually transmitted infection and reproductive tract infection care to post abortion care clients, 40.5% disagreed that nurses should offer screening and referral for reproductive tract cancers to post abortion care clients and majority (53.8%) agreed that nurses should provide pre-conception care to Post abortion clients. The findings reveals that nurses have low knowledge on screening of other conditions that

post abortion clients they may have but are aware of the need to prevent future pregnancies through pre-conception care.

Table 2 Post Abortion Care knowledge (n=195)

Statements	Disagree F (%)	Uncertain F (%)	Agree F (%)	Mean	S.Dev
Nurses should provide enabling environment for Post abortion care	66(33.9)	46 (23.6)	83 (42.5)	3.19	1.381
Nurses should offer High quality post abortion education to women and in the community	64 (31.3)	39 (20.0)	95(48.7)	3.25	1.440
Nurses should offer high-quality counselling related to post abortion care	57 (29.3)	37 (19.0)	117 (60)	3.54	1.273
When a patient in pain is receiving analgesic medication on a ''p.r.n.'' (when necessary) basis, it is appropriate for the patient to request pain medications before the pain returns	51 (26.2)	51 (26.2)	93 (47.6)	3.27	1.220
Nurses should Provide immediate post-abortion contraception (including IUDs, implants, DMPA)	42 (21.5)	47 (24.1)	106 (54.4)	3.42	1.205
Nurses should offer screening and referral for reproductive tract infections to post abortion care clients	71 (36.4)	45 (23.1)	79 (40.5)	3.08	1.393
Nurses should provide pre-conception care to Post abortion clients	54 (27.7)	36 (18.5)	105 (53.8)	3.37	1.380
Composite Mean					**3.31**

Source: Author (2019)

This study further sought to establish the general rating of the nurses' knowledge on post

abortion care practice in tier three hospitals in Nairobi County. The composite mean was used which was obtained using the means of each statement. The rating scale adopted was as follows; (1.0-1.7)-Low, (1.8-3.3)-average, (3.4-5.0)-High. The findings established that the nurses' knowledge towards post abortion care practice was generally average as indicated by a composite mean of 3.31.

Hypothesis Testing

H$_o$ There is no significant association between nurses' knowledge and practice of post abortion care in tier three hospitals in Nairobi County.

Null hypothesis was to be rejected in favour of the alternative hypothesis when the p-value is less than or equal to 0.05 at 5% level of significance or the chi-square value is greater than it's corresponding critical value. In this study as presented in Table 4.6, the p-value was less than 0.05, similarly chi-square value was greater than its corresponding critical value resulting in rejection of the null hypotheses. This indicated that there was sufficient evidence to reject the null hypothesis in favour of the alternative hypothesis and conclusion made that there is significant association between nurses' knowledge and post abortion care practice in tier three hospitals in Nairobi County.

Table 3 Hypothesis 1 Summary Table(n=195)

Null Hypothesis	Test	Chi-Square Value	Degrees Of Freedom	Critical Value	P-Value	Decision
Hypothesis 1	Chi-Square Test	2369.736	1980	2084.632	0.00	Reject **H$_o$**

Source: Author (2019)

Workforce study (2012) which states that nursing is a female dominated profession, most of nurses employed in the public sector has diploma as the highest level of education. Fifty five percent of the respondents had not been taught on post abortion care during their studies while the other 18% were taught during pre-service, 10% taught as in-service and 17% on-job training. This lack of training exemplify that nurses may not have adequate knowledge and skills to attend to post abortion care holistically.

This is consistent with published literature that health providers require adequate training and induction as well as protocols on post abortion care (WHO, 2017). The willingness to attend on-job and in-service post abortion care training is a positive though is an indicator on the nurses' willingness to participate in practice of post abortion care it cannot be relied upon. The findings of this study aligns to the findings by James (2015) that

employees are likely to seek to work in abortion related field if they had a personal history of abortion or sought out professional opportunities to participate in abortion care during their training (James, 2015). The findings relates to a recent study by Amanda (2019) that found that scaling up task sharing with midwives in post abortion care using misoprostol is safe, and highly acceptable to women and can improve access. The findings supports the Ministry of Health (2019) findings on the need to equip reproductive health providers with the necessary knowledge and skills to provide timely quality PAC services to reduce morbidity and mortality associated with the complications of abortion (Ministry of Health, 2019). Nurses require adequate training and induction as well as protocols on uptake of Post abortion care services similar to what was done in Ethiopia after legal reforms that were done recently(WHO, 2017). According to health assessment survey (2017) Nairobi County had the lowest level of satisfaction of health services at 38% with only 44% stating that the services are better than before devolution of health services(KIPPRA, 2017).

The general rating of the level of nurses' knowledge in regards to their role on post abortion care in tier three hospitals in Nairobi County and established that the level of knowledge was generally average as indicated by a composite mean of 3.31. This study further sought to establish the general rating of the level of nurses' knowledge in regards to the importance of post abortion care in tier three hospitals in Nairobi County and established that the level of knowledge was average at 51.21%. These findings aligns with findings of Chandra-Mouli (2013) that the knowledge, skills and perceptions among nurses regarding the use of the guidelines to deliver high quality care to the population of women who seek post abortion care services from hospitals is still wanting (Chandra-Mouli, 2013).

The Kenya PAC pilot project demonstrated that nurse/midwives and other non-physician health professionals if trained could safely and effectively provide PAC services to patients visiting their health facilities with incomplete abortion related complications using MVA procedure (PRIME, 2000). The study agree with a study by Loi(2015), that nurses in the Sub-Saharan Africa and South Asia are aware of the post abortion care guidelines and are trained on how to translate the guideline into practice. Pearson correlation coefficient revealed there was a very strong positive association (0.918) between the knowledge and post abortion care practice. Hypothesis test conducted also showed that there is significant association between nurses' knowledge and of post abortion care practice in tier three hospitals in Nairobi County.

5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The study examined two areas (knowledge and perception) to determine post abortion care practice.   The level of knowledge of nurses on post abortion care in tier three health facilities in Nairobi county-Kenya was average (51.21) though most of them were not taught on post abortion care during their studies but majority had undergone on job training. There is significant association between nurses' knowledge and practice of post abortion care in tier three hospitals in Nairobi County

Conclusion

The study concluded that knowledge influences the post abortion care practice. A higher level of knowledge s post abortion will increase the uptake of post abortion care in Nairobi County. To improve the level of knowledge and skills on post abortion care practice.   Pre-service training of nurses should incorporate post abortion care training. Qualified nurses to be trained on post abortion care competencies. County to consider task sharing to improve Nurses skills as they can effectively offer health education on prevention of unsafe abortion, which contribute to the majority of Post abortion clients is entirely preventable and remains a significant cause of maternal morbidity and mortality in Kenya. Unsafe abortion is characterized by inadequacy of skills on the part of the provider and use of hazardous techniques and unsanitary facilities.

Recommendations

The study recommended that nurses' pre-service curriculum should be reviewed to include post abortion care training, the government should consider continuous professional development on post abortion care as increase in knowledge to increase post abortion care practice. This would contribute to the government effort to reduce maternal morbidity and mortality due to unsafe abortions. The study recommends more qualitative and longitudinal studies and includes post abortion clients perspectives.

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