UNIVERSITY OF BOTSWANA

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HEALTH CARE WORKERS KNOWLEDGE, ATTITUDES AND PRACTICE TOWARDS POST ABORTION CARE SERVICES IN GABORONE HEALTH FACILITIES

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Research Proposal

Submitted as a partial fulfilment of the requirements of Master of Nursing Science (Parent and Child Nursing)

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DEDICATION

This work is dedicated to God almighty, the source of my strength and wisdom. The women of Botswana who are working very hard to take care of their families and contribute to the development of the nation are commended. The health of women is an important step in the development and prosperity of this nation. Saving the life of a woman saves the nation. Lastly, but not least this work is dedicated to my children Bonolo, Bernedict, Letang and Pesalema and all family members.

STATEMENT OF ORIGINALITY

The information presented in this research proposal was compiled by the author at the University of Botswana as a requirement for the fulfilment of the Master of Nursing Science between July 2015 and 2017. It is the original work except where acknowledgements have been made.

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Signature of the author Date

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I am also indebted to the almighty God who has enabled me to work through this research proposal and overcome all the challenges which I faced during the period of study. I wish to extend my gratitude to my children: B and grandchildren for giving me time and space during the period of study. This work will not have been completed without the support of my colleagues and supervisors at work and my spiritual parents.

APPROVAL PAGE

The research proposal has been read and approved for the scholarship of Master of Nursing Science (Parent and Child Health Nursing-Midwifery).

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ABSTRACT

Background: Post Abortion Care is a global strategy which is used to meet the growing commitment to reduce the unacceptably high maternal death rates due to complications related to incomplete, spontaneous or unsafely induced abortion. The knowledge of correct diagnoses, attitudes and practice of post abortion care in all the setting is a determinant of the quality of care given to the clients. The purpose of this study is to assess health care workers knowledge, attitudes and practice towards post abortion care in Gaborone health care facilities so as to improve the quality of the services.

Methods: The design is a cross sectional descriptive study which triangulates quantitative survey and grounded theory as a qualitative strand. Data will be collected from the sample of the health workers who are directly or indirectly associated with post abortion care clients using self administered questionnaires, in-depth-interview and observation checklists. Concurrent parallel mixed method design will be used for sampling participants for the qualitative and quantitative components of the study. Descriptive statistics will be used to analyse quantitative data while conceptual content analysis will be used for qualitative data. Data will be merged during analysis and discussion.

Results: Information from the study will be disseminated to the relevant stakeholders through seminars, conference presentations and publications**.**

CHAPTER ONE

1.0 Introduction

Post Abortion Care (PAC) is a global strategy which is used to meet the growing commitment to reduce the high maternal morbidity and mortality due to complications related to incomplete, spontaneous or unsafely induced abortion (Paul, Gemzell-Danielsson, Kiggundu, Namugenyi & Klingberg- Allvin, 2014). Unsafe abortion is a very common occurrence in most countries of the world with about 46 million abortions each year, resulting in a large number of maternal deaths and complications (Curtis, Huber & Moss-Knight, 2010). The same authors further alluded that the serious problems are usually faced by women in developing countries.

In order to mitigate the effects of abortion, post abortion care was introduced in 1991 by International Pregnancy Advisory Services (IPAS), a non-governmental global organisation which aims at ensuring that women receive reproductive care including abortion care (Corbett and Turner, 2003). Benson (2005) and Barot (2014) described PAC as a set of interventions that include emergency treatment for complications of spontaneous or induced abortion. The interventions involve: Evacuation of the uterus within 2 hours of patient arrival to the health facility to remove products of conception in order to prevent bleeding (Ministry of Health, 2013). Management of pain and control of infection are part of the priority care for post abortion care clients to prevent fatality. Family planning is an essential part of service provision as well as management of sexually transmitted infection and HIV counselling and testing. Community empowerment through community mobilisation is a very important aspect of PAC as it improves access to the services leading to improved women's lives. Integration of counselling within all the elements ensures that holistic care is given to women and improves quality of care (Benson, 2005).

High quality post abortion care services are important to reduce maternal complications and prevent deaths (Paul et. al., 2014). Quality PAC implies that all the required services are given by workers who are welcoming and non judgemental, enabling clients to freely give adequate history to ensure correct diagnoses and management of abortion. The knowledge and skill in making the correct diagnoses, as well as correct attitudes and practice of post abortion care in all settings is a determinant of the quality of care given to the clients. If the health care worker misses the diagnoses, it delays appropriate management and timely referral of clients; commonly leading to complications and even death. Some of the complications of unsafe abortion include uterine perforations, chronic pelvic pain, secondary infertility, isolation and stigma (Adinma, Ikeako, Adinma, Ezeama, and Ugboaja, 2010).

Stigmatising attitudes toward clients who need post abortion care in the community by some health workers reduce access to the quality of service given to clients, perpetuating the cycle of unwanted pregnancy, unsafe abortion and increased morbidity and mortality (Kalu, 2012: Evens et.al., 2014). Women may return home without adequate counselling and family planning with a risk of having subsequent unwanted pregnancies and induced abortion because fertility returns within three weeks after abortion (Curtis, Huber & Moss-Knight, 2010).

In Botswana, obstetric care is provided by midwives, doctors and specialists who possess knowledge and skills to provide such service (MOH, 2012). However, there are instances whereby shortage of midwives and doctors make general nurses expand their scope of service to the provision of post abortion care. Health care workers who are not trained on PAC may not possess adequate knowledge and skills or attitudes which are needed for access to quality care. As a result, the Ministry of Health has embarked on in-service training of health care professionals on the provision of post abortion care so as to improve the service.

1.1 Background

Abortion is both a global and national problem that contributes to maternal mortality and morbidity (WHO, UNICEF, UNFPA, WORLD BANK, 2012). The death of women due to abortion related causes is unacceptable since most of the factors leading to death are preventable (MOH, 2013). There is evidence that abortion significantly increases maternal mortality ratio (MMR) in Botswana, which is estimated at one hundred and sixty three per hundred thousand (163/100 000) live births (Motlapele, 2012). According to MOH (2014) abortion is the third leading cause of direct maternal death which contributed 15% of all maternal deaths in 2007-2011. The same report stated that abortion deaths are on the increase among adults. Furthermore, Smith (2013) conducted a study which demonstrated that 16% of maternal deaths in Botswana were attributed to septic abortion which is very common with unsafe abortion. The numbers of abortion related morbidity and mortality are very high in spite of the resources that the government has put in place to prevent abortion related deaths (MOH, 2014).

For instance, Botswana participated in global efforts to reduce maternal mortality rates by adopting the strategies recommended by African countries at the inauguration of Safe Motherhood Initiative (SMI) conference held in Kenya in 1987. The aim of SMI was to reduce maternal mortality by 50% by the year 2000 and by 75% by the year 2015. Botswana launched its (SMI) programme as a strategy to improve maternal health and child survival (Panos Institute, 2002). The country started an implementation programme which started with stakeholders' consultation in 1992, which was a necessary step for the success of the programme. In 1994, The International Conference on Population and Development (ICPD) also responded to escalating inequalities that were affecting women's health, and specifically urged governments to address women's sexual reproductive health and rights and attend to

the consequences of abortion. The main amendment was the inclusion of human rights approach in the definition of safe motherhood: Defining maternal death as social injustice. This description implies it is not fair for any woman to die as a result of pregnancy because the world is committed to improving maternal health and survival.

Botswana as a country made commitment to improving women's reproductive health. In 1993 two studies were conducted: "*Safe motherhood in Botswana: Situational analysis*" (MOH, 1994) which assessed the extent of maternal mortality, its causes and consequences. Another study was conducted between 1990 and 1992 to find out determinants of maternal mortality in Botswana (Family Health Care International, 2002). These Studies indicated that abortion was identified as one of the causes of maternal deaths following hypertensive disorders of pregnancy and haemorrhage in Botswana. Consequently management of abortion was then included in the general guidelines for antenatal care and obstetric emergencies. (MOH, 1994, 1997, 2005 and 2012). These guidelines appreciated the need for post abortion care but did not include detailed process of client management and the referral process.

PAC was also incorporated in the National Sexual Reproductive Health programme which is in line with the Botswana National Health Policy of 1995 as a strategy aiming at reducing abortion related maternal and perinatal morbidity and mortality (MOH, 2013). The government of Botswana, through the Ministry of Health and the Sexual Reproductive Health Unit has embarked on training of health care workers on post abortion care in order to reduce problems associated with unsafe abortion. The fight against abortion related problems lead to the development of the comprehensive post abortion care reference manual in September 2013 to be used as a guide to improve access and to serve as a guide for post abortion care. Some studies (Haddad, 2009 and Rasch, 2011) observed that there is a relationship between maternal morbidity and mortality and abortion, as well as the laws governing abortion (If abortion is not available on request or accessible women often resort to unsafe abortion

(WHO, 2012). In Botswana, the legal framework for abortion states that a person is not criminally responsible for performing abortion in good faith and with reasonable care and surgical skill when:

a) Safe abortion is performed within the first 16 weeks of pregnancy
b) Pregnancy is the result of rape, defilement, or incest or when pregnancy would involve risk to the life of the pregnant woman or injury to her physical or mental health.
c) There is risk that the child would suffer from or later develop such serious physical or mental abnormality or disease or to be seriously handicapped.
d) Can be done by registered medical practitioner in a government hospital or registered private hospital or clinic approved for that purpose, also two practitioners must approve the abortion in writing that continuation of pregnancy would indeed involve the risk to either mother or child (Botswana Government Portal, 2014).

It is on the basis of the restrictive laws governing abortion that some clients may not qualify to access safe abortion services, hence present to the government health facility with complications of unsafe abortion and the need for post abortion care services (Koch et al, 20 15). Some of the factors which are known to contribute to unsafe abortion are low contraceptive prevalence rate which is at 52% in Botswana (United Nations, 2014). Failure to use contraceptives is associated with unwanted pregnancy which may contribute to increased incidences of unsafe abortion. High rate of unsafe abortion increases the need for quality post abortion care services so as to prevent complications, death and recurrent unplanned pregnancies which may continue the cycle of abortion related mortality. In an endeavour to increase access to PAC in Botswana, the Ministry of Health has trained about 184 General Nurses across the country since 2011. Midwives and doctors are trained on

emergency obstetrics which include post abortion care. Training of health workers is regarded as a means to improve the quality of care given to clients with the ultimate aim of reducing maternal mortality and recurrent unplanned pregnancy following unsafe abortion. Health care workers who are trained are from different levels of health care settings in Botswana including clinics, district and referral hospitals in order to respond to the needs of post abortion care clients who may present to any level of health care setting.

According to the sexual and reproductive health policy (MOH, 2012), PAC is offered at different levels of health care settings in Botswana. Clinics are mainly the first level of contact where clients receive emergency management including diagnosis, prevention of haemorrhagic shock by giving blood expanders, initiation of antibiotics and referral to a higher facility for evacuation of the products of conception (MOH, 2014). The policy guidelines and service standards for sexual and reproductive health stipulate that PAC should be provided in all settings on a 24 hour basis such as in all hospitals and primary care facilities, to everyone who had abortion and their partners (MOH, 2012).

1.2 Statement of the Problem

One of the strategies used to increase access to PAC services comprise, in-service training of health care workers including general nurses, doctors and midwives to enhance their skill and confidence in client management (Basnett, Singh, Thapa, Andersen & Shrestha, 2011). The Ministry of Health through the sexual and reproductive health department has been conducting in-service training of the nurses, midwives and doctors on post abortion care, family planning and emergency management of obstetric conditions which are the cardinal focus of reproductive health (MOH, 2013).

According to Smith (2013) unsafe abortion contributed to 13.4% of maternal mortality in 2010. However, the maternal mortality audit committee report (MOH, 2014)

indicated that unsafe abortion is the third leading cause of maternal mortality in Botswana contributing 15%. In Gaborone district, maternal deaths associated with abortion declined in 2007 from 36.6% to 15 % (Motlapele, 2012). Nonetheless statistics showed there has not been improvement in the subsequent years as shown by the maternal mortality audit report. Madzimbamuto et.al (2014) researched on the root cause of maternal deaths in Botswana and found that one of the contributory factors to maternal deaths in Botswana is poor quality of care. Some of the women who were dying had sought for health care interventions. The authors also alluded that; personnel factors that contributed to substandard care included lack of recognition of the seriousness of the condition, lack of knowledge and skill. Delay in giving treatment, failure to follow guidelines, lack of equipment and supplies contribute to substandard care, increasing the risk of death due to abortion, (Mellerup, 2015).

Effective implementation and integration of the five components of PAC will ensure prevention of maternal mortality, unwanted pregnancy (Huber, 2016). Despite the availability of different policies that advocate for management of abortion and its complications, there are escalating numbers of women who die due to factors associated with abortion (MOH, 2014). It is therefore, important to determine if the knowledge provided through training and experience of the health provider have an impact on their attitudes and practice. In addition, there are no known studies on health care workers knowledge, attitude and practice (KAP) towards PAC services in Botswana.

1.3 Significance of the study

A study on assessment of the knowledge, attitude and practice of post abortion care will generate new knowledge and identify gaps in PAC which will facilitate improvements in planning and provision of services in the following areas:

1.3.1 Sexual Reproductive Health Care Practice / Policy

This study will contribute knowledge which will help strengthen existing strategies in provision of sexual reproductive health and rights, especially post abortion care services. The findings are expected to generate new information regarding the knowledge, attitude and practice level on the five components of PAC. Gaps will be identified and strategies to bridge those gaps will be recommended. The results of this study are expected to inform the policy that regulates PAC service implementation and inform implementers on the areas that need to be improved if PAC is to be effective in reducing maternal morbidity and mortality in Botswana.

1.3.2 Nursing and Midwifery Education

Information from this study will guide improvement of the Nursing and Midwifery curricula for training of nurses and midwives. Components of the knowledge and practice that need to be incorporated in the training will be identified and recommendations will be made to the health training institutions.

1.3.3 Nursing Research

This study is expected to generate information that will contribute to the body of knowledge in the area of post abortion care. The findings are also expected to generate more interest for researchers and health practitioners to do follow up research on the related topics and conduct the study on a larger scale.

1.4 Purpose of the study

The purpose of the study is to explore the relationship between health care workers knowledge (after training or years of experience offering PAC), competence and attitude towards providing PAC services in Gaborone health care facilities.

1.5 Objectives of the study

The objectives of the study are to:

1. Determine the level of knowledge of health care workers regarding the post abortion care services.
2. Determine the competency level of health care workers regarding post abortion care services.
3. Explore the attitudes of health care workers towards clients who need post abortion care services.
4. Establish challenges that health care workers encounter regarding the provision of post abortion care.

1.8 Summary

This chapter provided the introduction and background information on post abortion care services, and the global strategies that were initiated in order to deal with problems that arise due to unsafe abortion. The statement of the problem was stated, significance of the study, the specific objectives and the hypothesis were outlined.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

The chapter summarises key studies focusing on the knowledge, attitudes and practice of health care workers towards post abortion care so as to reveal the current information and gaps on this topic. The Literature reviews that will be presented include global and regional studies where most of the studies on the topic have been conducted. Literature search for studies in Botswana regarding the subject did not yield any results therefore; studies from other developing countries will give insight on the knowledge, attitudes and practice of post abortion care in those countries. The reviewed literature was published between 2009 and 2015, and was guided by the Post Abortion Care (PAC) model, that was adopted as a conceptual framework. Studies that were reviewed included some or all the five components of PAC.

2. 1 Conceptual Framework

Post abortion care model will be used as a conceptual framework to guide this study. The term post abortion care was first articulated in 1991in order to manage the abortion complications (Huber, 2016). There was a global concern that women were dying from complications of unsafe abortions especially where abortion laws were restrictive. Some women were resorting to termination of pregnancy which was conducted in places where it was not safe and sometimes by people who were not trained. PAC was introduced in order to break the cycle of unwanted pregnancies, complications and death due to unsafe abortions as well as to improve health status of women in the developing countries (Anderson et al, 2011). The same report indicated that: In 1993, several organisations including the Engender Health the then (AVSC International), International Pregnancy Advisory Services (IPAS), International Planned Parenthood Federation (IPPF), the Johns Hopkins Programme for

International Education in Gynaecology and Obstetrics (JPHIEGO) corporation and Pathfinder formed the post abortion consortium which was aimed at educating the community about effects of unsafe abortion and post abortion care.

In 1994 the International Conference on Population and Development (ICPD) urged all governments to regard unsafe abortion as a major public health concern because women continued to die from complications of abortion. In 1995, the International Planned Parenthood Federation (IPPF) and the International Confederation for Midwives passed a resolution promoting the participation of midwives in provision of post abortion care services, so as to increase access especially to primary health facilities. Midwives are usually the first health professionals to be contacted by women who required PAC services.

The PAC model, published in 1998 was based on Bruce's quality of care framework. Bruce framework was a client centred approach in the provision of family planning and sexual reproductive health services (Corbett & Turner, 2003). Originally the PAC model had three elements focusing on emergency treatment of post abortion complications, family planning counselling and provision of care and finally, referral to other sexual reproductive health services for management of sexually transmitted diseases and HIV infection. In 2002 the PAC consortium expanded the elements of PAC from three to five elements to include counselling and client provider interaction which are integral part of post abortion care. Community involvement with an emphasis on the public health approach was also emphasised (Huber, 2016).

2.2.1 Assumptions of Post Abortion Care Model

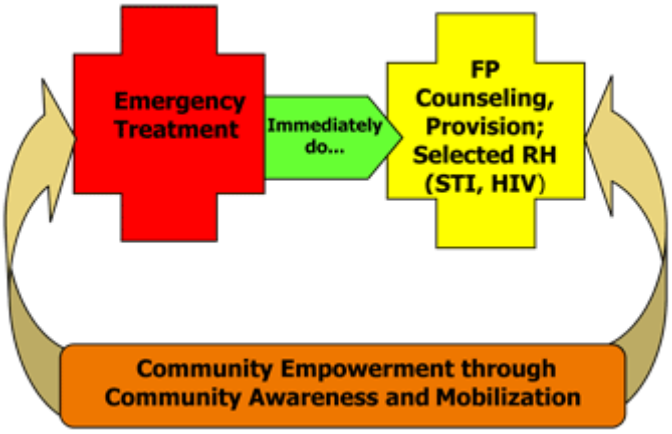
Post abortion treatment was identified as an emergency obstetric care which can reduce complications of unsafe abortion. The basic principle underlying the PAC framework is that if women who had abortion had access to PAC, they would be less likely to suffer

from abortion complications (Benson, 2005). The community as well as the health care workers who have adequate knowledge and positive attitude to management of post abortion could provide quality care. The model also assumes that post abortion contraception when provided as an integrated component can reduce incidences of unwanted pregnancies and ultimately unsafe abortion.

In order for PAC to be successful, clinical facilities must be ready to provide the service. The facilities must have appropriate equipment and supplies as well as personnel trained in clinical procedures and counselling that support service delivery, so that the care that is given is of high quality (Benson, 2005). The health care workers must be willing to provide the services, the attitude and knowledge should also be current and up to the required standard. The implications of the model are that knowledge and attitudes are very important to improve practice as well as promotion of access to quality post abortion care services.

The diagram on the next page is a diagrammatic representation of the PAC model developed by the United State Agency International Development (USAID, 2007) showing the core components of post abortion care. The diagram demonstrates the three main elements of the post abortion care model: Emergency treatment, family planning counselling and sexual reproductive health including sexually transmitted diseases and HIV and AIDS management. Empowerment of the community is also achieved through community education and motivation.

Figure 1: The USAID's Post abortion Care Model (2007)



2.1.2 Application of the conceptual framework to the study

The PAC model will be used to assess the health care workers practice based on the factors such as knowledge and attitude. In this study the PAC model will be used to to asess how the Health Care Workers (HCW) provide emergency treatment to manage complications of abortion, which have been operationalised as (practice) which is offered as priority care to prevent maternal morbidity and mortality. Family planning counselling and provision of contraceptives, is the next step which ensures prevention of future unwanted pregnancies and consequently the need for abortion. Prompt intervention (practice) is dependant on the knowledge and attitude that the HCW posssess in oder to recognise the importance of the service. According to Maxwell, Voetagbe, Paul, & Mark (2015), the abortion visit is an ideal time to offer contraception as the woman may be motivated to use a method, she is known not to be pregnant, and she is in contact with a reproductive healthcare provider. The same recommendations were shared by Maina, Mutua and Sidze (2015).

Post abortion care clients should also receive other sexual reproductive care services such as management of sexually transmitted infections, and HIV and AIDS couselling and management; so as to provide comprehensive care. Counselling on the psychological well

being of the client (practice) should be provided throughout all the phases of care. Post abortion family planning is regarded as a major component in prevention of unwanted pregnacy and support of clients. However, identification of risks factors (knowledge) as well as the desire to act (attitude) by the HCW determines the kind of services (practice) that would be rendered to the clients**.** Quality PAC services (practice) which is based on the clinical guidelines derived from the model (right knowledge, positive attitude towards care) is dependent on training and experience of the health care worker.

The PAC model has been used to guide the literature review especially regarding the knowledge, attitude and practice of the elements of PAC. The framework will also form the basis for development of data collection tools, data collection procedures, analysis and presentation of findings.

2.2 Global studies on Post Abortion Care

Basnett, Singh, Thapa, Andersen, & Shrestha (2011) conducted a research in Nepal to evaluate nurse providers' knowledge and skills (competence) in provision of comprehensive abortion Care (CAC). The nurses were trained to manage complications of spontaneous and induced abortions, for both safe and unsafe abortion according to the national comprehensive post abortion Care (PAC) training manual, the training lasted 14 days. Facility CAC logbook were evaluated, provider interviews, facility assessments, and procedure observation checklists were used to collect data. A total of 92 nurses participated in the evaluation. Data on the provision of CAC was collected from ninety six (96) nurses in fifty (50) facilities who were trained on the provision of CAC. Eighty six percent (86%) of nurses who were trained achieved clinical competency at follow up. Thirteen percent (13%) who were not providing CPAC reported that they were not assigned to CPAC, too busy or reported not having clients.

The study showed that nurses had positive attitudes according to the observation checklists when trained to provide first trimester CPAC services at the same level of efficiency and precision as the doctors. The study recommended refresher training course for nurses and midwives, and adequate supply of equipment and supplies. The relevance of the study to the current study is focused on the competence and attitudes of the nurses during provision of post abortion care, including evacuation of the uterus, counselling and referrals.

Barot (2014) produced a brief report on post abortion care in Pakistan. The report summarised a study that examined the conditions under which women obtain abortion in Pakistan. The study focused on the incidence, coverage, quality of facility based post abortion care and the extent to which recommended standards for PAC had been implemented. The report was drawn from different data sources using qualitative and quantitative methods. Several methods which were employed included: Health facility surveys, in depths interviews of women and a perspective on men on abortion and post abortion care which was carried out using informal group discussions. The findings of the study were that women with abortion complications usually seek treatment in private sector while poor women go to government facilities. Women reported that they feared being treated poorly by doctors and other staff and also, assumed that public health facilities lack proper equipment hence preferred private sector.

The results of this study showed competency gap on the recommended practice for evacuation of the uterus according World Health Organisation and national guidelines. Regarding the availability of equipment which is also regarded as an important factor in the provision of quality PAC, 91% of the facilities had equipment for D & C, 25% for Manual Vacuum Aspiration (MVA), 54% had misoprostol. Lack of necessary equipment impedes access to quality post abortion care services. A high proportion of facilities did not have

twenty four (24) hour coverage of gynaecologist and 41% did not have coverage of an anaesthetist.

In regard to family planning (FP) provision, 61% of public facilities reported to be providing the services and stated that 46% of the women left the facility with an FP method. On the issue of attitudes, 42% of women perceived that providers had negative attitudes towards PAC clients. This study is relevant to the intended study because it demonstrated that successful practice of PAC is based on the availability of equipment, trained personnel and provision of family planning. These are some of the components which the intended study seeks to find out. Some of the recommendations of the study were inclusion of PAC in the pre-service curriculum and in-service training of health providers at all levels of care among others.

2.3 Regional Studies on Post abortion Care

Few studies have looked at the knowledge, attitudes, and practices (KAP) of Health Care Workers regarding post abortion care. Adinma, Ikealo, Adinma, Ezeama and Ugboaja (2010) conducted a cross sectional prospective study focusing on awareness and practice of post abortion care services among health professionals in South East Nigeria from June to September, 2006. The respondents included nurses and doctors who were referred in the study as skilled birth attendants, general practitioners and specialist doctors. Stratified random sampling was used to categorise facilities into primary, secondary and tertiary level. Participants included in the study were selected through random sampling.

The study revealed that even though the overall awareness of PAC services was 75.5%, it was not complete regarding the five elements. Awareness on counselling was high at 72.8%, followed by referrals to other reproductive health services at 63.8%; the practice of manual vacuum extraction was at 59.3%, whereas community partnership and family

planning in the context of PAC was low at 6.2 and 6.4% respectively. The findings showed that midwives who were trained provided PAC services with the exception of Manual Vacuum Aspiration, which was mainly practiced by doctors. This study demonstrated that resources play a major role in the implementation of PAC services.

The strength of the study is on adoption of stratified random sampling and simple random sampling, to ensure representativeness of the population studied. All the facilities were included in the sampling procedure. The strength of the research was to involve both the categories of health personnel who provided direct care to the PAC clients. However, the limitation was that it was not clear if these health workers were directly working with PAC clients because if not there would be a bias. The study is relevant because it explored the knowledge and practice of PAC regarding the five elements of post abortion care just like the intended study, even though it did not include the provider's attitudes.

Another study which encompassed the knowledge, attitude and practice was conducted by Paul, Gemzell-Danieelson, Kiggundu, Namugeny, Klingberg- Alluvin (2014). A qualitative study focusing on task sharing between physicians and midwives was conducted at district level in central Uganda. The aim of the study was to explore physicians and midwives perceptions of PAC with regard to professional competencies (knowledge and practice) and methods of uterine evacuation.

An inductive study approach was used utilising qualitative method of in-depth interviews. Data on the attitudes and practice of post abortion care. Topics which were covered in the interview guide included attitudes and perception towards post abortion care. Knowledge was assessed by asking participants to define and explain how the procedures are done as well as about the methods used for uterine evacuation.

Data was collected in five districts in the central region of Uganda. Purposive sampling was used to identify data rich or key respondents. The person in charge of the facility was selected to be part of the study subject, which is regarded as the strength of the study.

All the participants signed a written consent, pilot test of the instruments were done and the interview guidelines were revised in order to prevent ambiguity of the questions, which was the strength. Data collection tools were pretested and revised to increase reliability. Data was transcribed verbatim, read through several times, coded manually and analysed using thematic analysis and inductive reasoning. Credibility was strengthened by using in vivo quotes to highlight the findings. Individuals with different culture and professional background analysed the data hence reducing bias.

The respondents showed inadequate knowledge regarding the five elements of PAC since they left out counselling. Referrals to other sexual reproductive health service providers, community involvement and attitudes were reported as positive. Midwives expressed frustrations with patients who had unsafely induced abortions and those that denied having committed abortion as they contributed to heavy workload and complicated service delivery. The researchers commented that these frustrations could lead to harsh treatment of the clients by the midwives. The methods used for uterine evacuations were similar to the ones reported in the studies that were discussed earlier. However, lack of knowledge, lack hospital guidelines and unavailability of the misoprostol was cited as some of the challenges. Other factors that contributed to underutilisation of Misoprostol were: Fear of complications such as uterine rupture and misuse of the drug.

The findings are consistent with the results of the study conducted by Adinma et al (2010) which is significant to the current study demonstrated that knowledge and attitudes impact on the practice of PAC. The results also showed lack of practice regarding all the

elements of PAC. However, this study brings more information on practice of emergency care, the choice between MVA and Misoprostol, and the involvement of midwives in the provision of post abortion care. These findings are significant pointers to the intended study because in Botswana, the Ministry of Health (2014) recommended the use of Misoprostol for management of second trimester abortions. Strength of this study was outlining the roles and responsibilities of health care workers.

Kalu, Umeor, and Sunday-Adeoye (2012) conducted a study to review the implementation of PAC services and effective linkage to other PAC services at Ebony state teaching Hospital, Abakaliki, Nigeria. A retrospective quantitative study was conducted using data on women with post abortion complications who received care from 1st July 2004 -30th June 2009, exploring experiences with the provision of post abortion care. The outpatient registers and ward admission registers were reviewed and cross checked by the researchers. The items in the questionnaire focused on the effectiveness of the PAC model and integration of the emergency treatment to other services of PAC.

The results showed that 80% of nurses and doctors who provided PAC were aware of well defined programme of PAC while 20% reported it as just a routine provided by the hospital. Only 31% of providers had formal training in PAC, 80 % believed that the programme reduced maternal mortality in the hospital (attitude). However, only 40% of the care providers integrated prompt treatment with counselling for contraceptives and other reproductive health services. Partnership between the community and the health facilities in the provision of PAC was believed to be very poor by 82.5% of the respondents whilst 62.5% believed that the services were not adolescent and single women friendly. Generally, only 47.7% of care providers thought that PAC that was implemented in Ebonyi state was satisfactory. This study highlighted that lack of training in PAC was a major challenge in the implementation of PAC. The study demonstrated the need to integrate all the services in the

PAC model to get the maximum impact and reduce maternal mortality associated with unsafe abortion. The study findings are consistent with other studies conducted in Africa (Adinma, et al 2010: Paul, et.al, 2014) which revealed an impact of knowledge on the attitude and practice of PAC especially in incorporating all the five elements.

Research conducted in Malawi by Odland, Rasmussen, Jacobsen, Kafulafula , Chanoga & Odland (2014) to investigate the use of MVA in the emergency treatment of post abortion care in Malawi, it was a retrospective cross sectional study from three public hospitals using data from 2008-2009. Data was collected by three teams of health professionals who understood medical terms. Analysis of data was achieved through the use of IBM and SPSS version 20. Values were reported as proportions with (95%) confidence interval. Regarding practice of emergency management of abortion 34.2% of first trimester abortions were treated with MVA while the rest used sharp dilatation and curettage (82.7), which was observed to be on the increase from 2010-2012. The practice was pointed to be in contrast with the international standards. Medical management with the use of Misoprostol for evacuation of the uterus was stated to be the best method but there was failure to use it due to lack of knowledge by some health care providers.

A limitation of the study was that some of the files were not reviewed due to poor record arching system by the hospitals and some files were missing. However, the strength of using retrospective data reduced bias because the recorders did not know that the information would be used for research. Therefore, it was truthful. The other strength was the use of government hospital because service delivery and availability of equipment might be different in private settings; this is also relevant to the intended study. The study recommended monitoring of clinical practice as a way to ensure adherence to set standards, for instance Misoprostol was not used because doctors felt that it was taking long to act hence they opted to MVA which showed immediate results.

Quantitative research was conducted in a rural hospital in south western Uganda; it was retrospective study using data from January 2007- April 2012 by Mellurup, Sorenson, Kuriigamba and Rudnick (2015). The study was on the quality assessment on management of complications. The research was intended to reveal emergency management of complications, evacuation of the uterus, pain management and use of antibiotics to prevent infections; these aspects are part of the components of PAC model. Cases were excluded if management was done in outpatient, or the abortion showed to be complete because full management could not be assessed. Women with gestational age of above 28 were excluded because deliveries at this stage were considered a birth. The sample was 238 out of the 331 women who were admitted from January 2007-April 2012 who met the inclusion criterion. Areas of interests to the proposed study were emergency management of complications during post abortion care. The results showed suboptimal care both in clinical assessments for life threatening complications which due to lack of following the guidelines. The delayed management of complications was attributed to lack of equipment.

A study done in Kenya titled 'post abortion services for youth and adults clients, comparing provision of services, client satisfaction and provider attitudes' was conducted by Evens et al, (2013). A descriptive post study of PAC services was conducted in eight facilities in central and Nairobi provinces in 2009, using structured phone interviews with PAC clients, in-person interviews with providers and faculty checklist. Sites were eligible for participation if they were public sector hospitals that provided PAC services, were equipped with PAC supplies and staffed with at least one provider trained to provide youth friendly services. Eight facilities with the heaviest PAC clients load according client register were selected among the twelve that met the criteria.

All providers who offered PAC in the eight facilities consented to participate, 20 providers were interviewed in person and one conducted over the phone. Information was

collected on areas that included training, knowledge and attitudes about providing family planning and PAC services. The strength of the study was based on high sample size and the sampling criterion ensured that rich data was collected. In person interviews also provided an opportunity to probe and to clarify questions. Comparison of data from the clients and health care providers also enriched the information and validated some of the findings that were reported.

The results showed that all providers reported favourable attitudes towards PAC provision; that PAC services are important and that equal treatment of clients is important regardless of age and marital status. Providers agreed that family planning and counselling should be provided to all clients. However, uptake of contraceptives after PAC was low for youth compared with adults (35% versus 48 %; $p = 0.02$). The reasons advanced for lower rate of contraceptives use were attributed to less robust family planning programmes. The findings of this study are relevant to the intended study because it explored the attitudes of the providers and provision of family planning which are some of the variables of the intended study. The strength of the study was testing multiple variables hence the study generated a lot of data from both the health care providers and clients. However, the limitations were low response rate from the clients since the study used only clients who had phones during data collection, excluding poor women and those who did not want to be contacted by phone. Participants recall bias was also highlighted as one of the limitations.

The main studies reviewed in this section used different approaches of studying the KAP but all got similar results which pointed that there is a relationship between knowledge, attitude and practice of post abortion care. Good knowledge on PAC has been associated with positive attitude, quality practices and using the safest mode of uterine evacuation and incorporation of all the elements of PAC model.

2.4 National studies on post abortion care

Literature review on post abortion care did not yield any results on studies conducted in Botswana regarding post abortion care, however, several studies conducted in developing countries especially African countries that have been reviewed shed some light on the intended study. However, a national study on the maternal mortality report (2007-2009) gave valuable information on the current status of maternal mortality in Gaborone district. The data showed that single women were affected by maternal deaths probably because they lack both social and financial support. The same report documented that single women are likely to resort to abortion. Majority of women died due to septic abortion and haemorrhage. The same report further elaborated that delaying in seeking health care by clients, making diagnoses, referral and not deciding on definitive management by health care workers were noted to be contributors to abortion deaths.

The reviewed studies pointed the need to do a similar study in Botswana to find out the current state of knowledge, attitudes and practice of PAC in the city Gaborone in order to expand the body of knowledge in this field. The methods utilised in these studies would be evaluated, the findings and recommendations would be taken into consideration when designing the study.

2.5 Operational definitions

For the purpose of this study, the terms will be defined as follows:

Abortion: The termination of pregnancy or expulsion of a non-viable fetus weighing 500g or less before (twenty-four) 24 weeks of gestation regardless of the place and the methods used. (MOH, 2010).

Post abortion care services**:** Post abortion care is a package of services comprising treatment of incomplete abortion through medical and surgical interventions, empathetic counselling, and provision of health information, PAC family planning counselling, information and a choice in family planning products (MOH, 2014).

Health care worker**:** Health care worker refers to a gynaecologist or obstetrician medical officer, midwife or a general nurses trained in post abortion care.

Unsafe abortion: It will include any a procedure for terminating a pregnancy that is performed by an individual lacking the necessary skills, or in an environment that does not conform to minimal medical standards, or both (WHO, 2012).

Contraceptives: An agent, device or drug used to prevent pregnancy (Hatcher,2013), that is issued at the health facility or the client is advised to use such as natural family planning condom, pill, implants or any suitable method.

Knowledge: The capacity to acquire, retain and use information, a mixture of comprehension, experience, discernment and skill which will be captured knowledge test using multiple choice questions and true and false. (Shelby, 2014: Vandamme, 2009).

Attitude: An inclination to react to situations to see and interpret events according to certain predispositions or to organise opinions into coherent and interrelated structures (Shelby, 2014: Vandamme, 2009). For this study attitudes will be determined by responses of the provider on the likert scale the questionnaire.

Practice: The application of rules and knowledge that leads to action (Shelby, 2014). Utilisation of observations check list will capture information on the competency level as demonstrated by the ability of care givers to perform procedural steps.

Independent variables

- Training
- Experience

Dependant variables

- Knowledge
- Attitude
- Practice

2.6 Summary

In order for post abortion care to be effective, all the five elements of post abortion care should be incorporated in client services. This chapter discussed the conceptual framework, its application to the study and the literature review. Definitions of concepts were also provided in this chapter as well as the variables which will be explored in this research.

CHAPTER 3: METHODOLODY

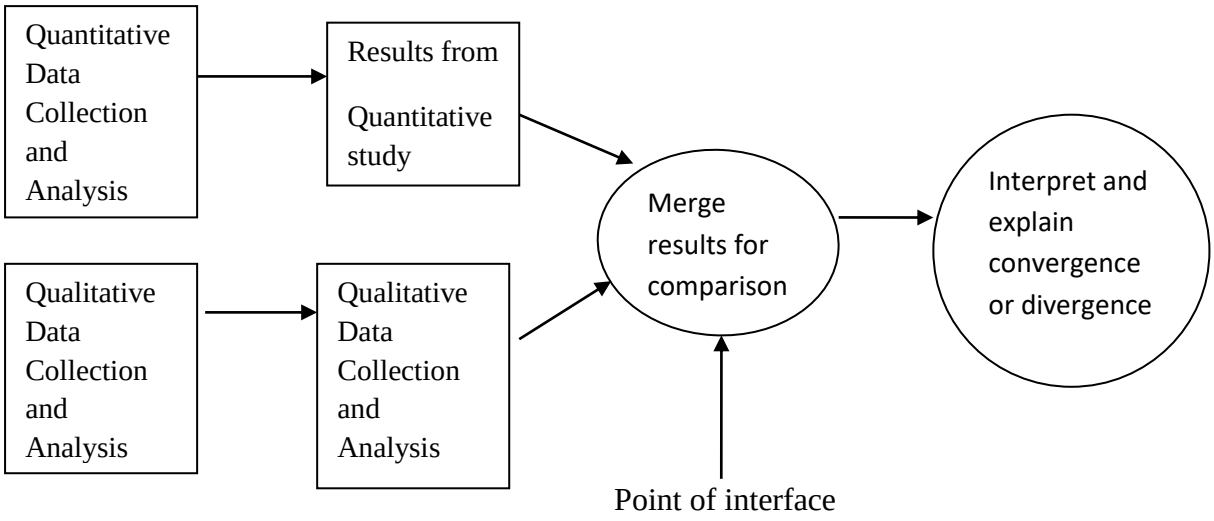
3.0 Introduction

This chapter discusses the research design, study setting, population, sampling methods, ethical considerations, data collection procedures, instruments for data collection, methods of data analysis and limitations of the study.

3.1 Research Design

This study will be informed by the mixed method approach. According to Creswell (2013) this approach involves the collection and analysis of qualitative (open-ended) and quantitative (closed-ended) data in response to stated research questions. Despite existence of various mixed method approach such as, Explanatory Sequential Mixed Method, Exploratory Sequential Mixed Method, Transformative Mixed Method, Embedded mixed methods design and multiphase mixed methods design, this study will adopt the Convergent parallel mixed method design (Fig.2. This approach is relevant as it will allow comprehensive investigation of the research problem by integrating the qualitative and quantitative information providing a coherent interpretation of the overall results. According to Creswell (2006), this approach is a traditional model of triangulation whereby the researcher collects quantitative and qualitative data separately and then converge the results to explain the phenomenon investigated. This being the case, convergent parallel mixed method approach allows opportunity for contradictions and incongruent findings to be further probed. Therefore, this approach is relevant for this study as it will present a comprehensive articulation on the health care workers knowledge and attitude towards the provision of post abortion care. This will be done through triangulation of in depth interview experiences and observations on general findings of the research survey (Amacher et al. 2016).

Fig.2 Convergent Parallel Design (adapted from Creswell, 2013)



3.2 Setting of the study

The study will be conducted in Gaborone, located on the southern district of Botswana. The study sites will include government health facilities among them Princess Marina Hospital and the clinics which provide sexual reproductive health care services including post abortion care services (MOH, 2012). The study site was chosen because of proximity to the University of Botswana where the researcher is studying in order make the study financially feasible. There are twenty-four (24) health clinics, five clinics of which provide maternity services, while sixteen (16) clinics provides other sexual and reproductive health services including post abortion care. Princess Marina Hospital provides post abortion care services for inpatient clients who are admitted at gynaecological ward and outpatient clients at sexual reproductive health clinic.

Figure 3.1: Study location, Gaborone Map: Adopted from Google Maps

3.3 Population

A population is a well-defined set that has certain specified properties from which a sample is drawn (LoBiondo-Wood and Haber, 2006). In this study the population will comprise of all the nurses, midwives and doctors in Gaborone clinics and PMH.

3.4 Sample of the study

Sampling is the process of selecting representative units of a population to represent the entire population (Ostund, Kidd, Wengstrom, & Rowa- Dewar, 2011). This study will adopt a mixed method approach therefore, sampling for both quantitative and qualitative strands are described. A total number of 100 respondents will be sampled to participate in the study. The sample will be selected according to the following:

3.4. 1 Sample Inclusion criteria

All the nurses, midwives and doctors in Gaborone will be eligible to participate in this study if they satisfying the following:

- All males or females working in a government health facility with a minimum period of one year.
- Worked in gynaecological ward or have worked in the sexual reproductive health facility providing PAC service. Additional, in case of the doctors, priority will be given to those who specialised in obstetrics and gynaecology.

3.4.2 Sampling and sample size for quantitative data

This study will use multi-stage sampling technique. The first stage will use the stratified sampling method for the purpose of categorising health practitioners according to their profession. According to LoBiondo-Wood, and Haber (2006) this method involves identifying subgroups in a population into strata, in which sample will be drawn from. After identifying the health practitioners as Doctors, Midwives and Nurses, the second stage will employ simple random sampling to identify the sample size for quantitative data from the

previously identified strata. It should be noted that, simple random sampling guarantees that differences between the sample and the population are purely by chance. The sample size will be allocated proportionally according the number of health care workers who provide direct patient care (Polit and Beck, 2010). According to Onwuegbuzie and Collins (2007) sample size is important because it determine the extent to which the researcher can make statistical or analytic generalisations. For this reason, the simple random sampling for this study will follow this formula:

$$N_h = \frac{Total\_population\_of-each\_strata\_(n_1,....n_3)}{Grand\_total\_of\_all\_Stratas} X\,(100)$$

$$therefore\_N_h\_is\_the\_sample\_size\_of\_the\_study$$

Equation 1: Formula for quantitative data sample size

Using the equation 1, the sample size is presented by Table 3.1. As such the quantitative data, will consist of hundred (100) respondents, with nine (9) of those being Doctors, fifty-four (54) constituting of Nurses and finally thirty (37) of those being midwives.

Health Practitioner Strata	Population per Strata	Formula	Number of respondents sampled
Doctors	45	*(45/488) ×100*	9
Nurses	264	*(264/488) ×100*	54
Midwives	179	*(179/488) × 100*	37
Total	**488**		**100**

Table 3.1: Selection Criteria for Number of Respondents Selected for the Study

3.4.3 Sampling and sample size for qualitative data

The third stage, qualifying this study to use multi-stage sampling, is the selection of respondents for qualitative data. The selected participants will be purposively sampled to participate in an in-depth interview and participant's observation. Purposive sampling will be adopted because it will allow the researcher to collect information from a small number of key informants who are knowledgeable on post abortion care services in Gaborone. In-depth interview will explore the attitudes towards clients who need post abortion care services. Existing studies (e.g. Onwuegbuzie & Collins, 2007; Ingham- Broomfield, 2011) suggested that a sample size comprising of 30 – 50 participants will be adequate to participate in an interview and observations. Therefore, 30 respondents will be sampled to participate.

3.5 Ethical Consideration

The study will be undertaken in line with the principles of ethical research, involving human subjects. These principles include special attention in communicating the aims of the study, and ensuring upholding the rights of people participating in the research. Written informed consent which clearly stipulates the aims of the study will be given to participants. Confidentiality will be maintained by using codes not participants' names on the questionnaires and during data analysis or presentation. The questionnaire will be stored in a secure lockable cabinet where only the researcher will have access them.

3.5.1 Protecting human subjects

Permission to conduct the study will be obtained through the University of Botswana and Health Research unit of the Ministry of Health. The district health team of Gaborone City Council will be contacted to give permission to participants for the study. Identification of the researcher and ethical contact information will be included on the consent form.

3.5.2 Informed consent

Participants will be informed that their involvement in the study is voluntary and that they may withdraw at any time from participation in the study without any fear of being victimised. Participants will be asked to complete a self-administered guide which has both closed and open ended questions. Completing the survey questionnaire may take about 30 minutes, however the participants will be given time to complete the form at the own pace while interview or observation may last for an hour.

3.5.3 Potential benefits of the study

Information gathered from this study will be used to make recommendations to improve quality of the Post Abortion Care services and inform the curricula for Nursing and Midwifery. There will be no monetary or any incentive given to the participants.

3.5.4 Anonymity and privacy

Anonymity refers to protection of participants such that data could not be linked to them even by the researcher (Burns & Groove, 2011). Protecting participants' identity will be achieved by using code numbers instead of participant's names. Audio tapes will only be switched on after the introductions. Participants interview and observations would be conducted where movement will be restricted by locking the door and posting a note, "'do not disturb" on the door to ensure privacy.

3.5.5 Risks and discomfort of the study

Post abortion care may be a sensitive and uncomfortable topic to reflect on at times. Participants will be informed that they are free not to answer any part of the questionnaire or interview that they are uncomfortable with. Answering questions which may reflect on the management of the organisations such as availability of equipments, drugs and utilisation of

guidelines for client management may make some participants uncomfortable for fear of victimisation at the work place. It is on that note that assurance that the information will be kept confidential and secure will be made.

3.6 Data collection tools

Mixed methods approach uses multiple sources of research instruments (e.g., questionnaires, interviews and observations) to heighten the dependability and trustworthiness of the data and its interpretation (Polit & Beck 2010). The data collection instruments proposed for this study will be self-administered questionnaires, observation checklists for quantitative data, alongside semi-structured interviews guide for individual in-depth interview for qualitative data.

3.6.1 Quantitative Data Instrument: Self-administered questionnaires

Self-administered questionnaire will be used to conduct the survey for this study. This tool is selected because it is a cheaper and suitable way for enquiry which is simple and clear, (Burns & grove, 2011). As such, self-administered questionnaires will increase the respond rate as participants can answer them at their own pace. Further, the absence of the interviewer gives greater assurance of anonymity to the respondent. Post abortion care utilises well developed guidelines as illustrated in the conceptual framework, therefore procedural steps that are involved in giving PAC, allows development of responses which are limited to fixed categories for participants to select the correct response.

The questionnaire will be structured in such a way that it begins with section A, addressing demographic information of respondents. This will include socio-demographic variables either expressed as nominal or ordinal variables in case of closed ended question. However, open ended questions will also be integrated in the demographic section. Section B,

of the questionnaire will mostly consist of likert-type scale aimed at addressing the knowledge attitudes and practices of PAC for study participants.

The questionnaires will be given to respondents to complete at the work place after recruitment to increase response rate. After that the researcher will collect the completed questionnaires and prepare for data analysis process.

3.6.2 Observation Checklist.

Observation is a method of gathering data in quantitative studies. Burns & Grove (2011) asserted that observation of participants in a naturally occurring situation such as the clinical area provides insight about what is happening. Participative role allows the researcher to gain entry into the group and build trust that will allow the researcher to proceed (Polit and Beck 2010). The observation checklist has instructions to be followed by the researcher. The checklist items will include skills and attitudes demonstrated by the nurses and midwives during provision of PAC. Management of post abortion care usually follow standardised procedural steps which can easily be evaluated using checklist. Observational checklists are useful when the researcher has knowledge about the question under study.

Participants' observation will take place in the health facilities where post abortion care services will be offered. A location where health care services are given will be selected for data collection, observations will be made and information recorded in the checklist. The researcher will participate in minor roles of the group under study while at the same time, observing and recording the activities in context. Observation sessions will be the duration of procedure, for example family planning counselling following abortion. Areas where the researcher could not reach will be complemented by interviews (Zohrabi, 2013).

3.6.3 Qualitative Data Instruments: In-depth Interview Guide

Instruments which will be used to collect qualitative data are the interview guide**.** Semi structured interview guide will be used to collect information. An interview allows collection of in-depth information through uncovering of the details about provision of post abortion care in Gaborone health care facilities. According to Burns & Groves (2011) interviews are advantageous because the researcher can determine if respondents needs clarifications on some questions hence increasing the accuracy of the data. Furthermore, interview allows the respondents to express themselves in details, for example providing relevant examples relating to their experiences and perceptions of the phenomenon under investigation. Interviews are a good way of measuring attitudes as attested by (Zohrabi, 2013).

Selected key informants will be subject to face to face interviews whereby the researcher uses the interview guide to direct the conversation. Furthermore, open ended questions will be asked to allow the respondent to cover as much details as possible. Probes will be used to guide the participant to gather more information. Also, a voice recorder will be used to collect data. Data collection will continue until data saturation is achieved, that is when no more new information is collected (Creswell, 2013).

The interview guide will be structured such that the first section allows the respondent to complete demographic information. Section B of the interview guide will consist of open ended questions aimed at addressing knowledge, attitudes and practices of study participant in relation to PAC.

3.7 Establishment of scientific merit

Scientific merit in a qualitative study refers to the criterion that is used to assess the quality of the study (Polit and Beck, 2010). Generally before collecting data, the researcher

needs to ensure reliability and validity of the instruments that will be used for quantitative data. Reliability refers to the extent to which an instrument measures a concept. (Burns & Groove, 2011). Reliability includes dependability and consistency of the data. Triangulation of different procedures for collection of data which includes questionnaires, interviews and clinical observations will improve reliability of the data and the results.

The researcher will conduct a pilot study evaluate the clarity of the instrument. Additionally, Cronbach's alpha will be computed to establish internal consistency of the data, as such checking the reliability of the quantitative instrument. The Cronbach's alpha value ranges between 0 and 1.therefoe o- 0.5indicating none to weak reliability, 0.5- 0.7acceptable but weak, 0.9-1 too strong and may indicate that the question on the scale or measure are redundant. The good reliability of $0.8 > \alpha \geq 0.7$ will be acceptable. Burns and Groove (2011) asserted that estimate of reliability should be done on each instrument for the study.

3.7.1 Validity

Zohrabi (2013) explained that validity is concerned with whether the research is believable and true and if is evaluating what it is supposed to evaluate. One way of enhancing validity is through the use of a sufficiently large sample. The quality of the instruments are also very important, hence several procedures are used to validate the instrument and the data. The following methods will be used to establish validity:

3.7.2 Content validity

To ensure content validity, the instruments will be reviewed by health professionals who are experts in issues regarding post abortion care. The review will assist clarifying unclear questions and reword complex items and discard none functioning questions (Zohrabi, 2013). The reviewers will also check and make input on the content to ensure that all important areas are covered.

3.7.3 Construct validity

According to Burns and Groove (2011), a construct reflect the specific observable characteristic of a concept that facilitates testing of the idea. Further, factor analysis will be computed to identify clusters of related variables so as to group them together consequently forming a scale which will be utilised in data collection in the form of a likert scale.

Internal validity

It is mainly concerned with research findings and reality. Random selection of the study sample for the survey will reduce bias and increase the reality of the study findings. Data will be collected through questionnaires, participants' observations and in-depth in interviews in order to support the findings (Polit and Beck, 2010). The research data and findings will be reviewed by peers who are knowledgeable on post abortion care services in order to enhance truthfulness of the research findings (Zohrabi, 2013).

3.7.4 Utility criterion

Utility refers to degree of usefulness that the findings have for the stakeholders. The study intends to provide feedback to the health facilities in matters related to implementation of post abortion care. The study findings are likely to benefit the Institutes of Health Sciences and the Schools of Nursing in issues concerning improvement in Nursing and midwifery curricula to incorporate objectives which will help student to acquire knowledge, skills and attitudes to provide quality PAC services.

3.8 Establishment of trustworthiness for qualitative data

To enhance quality of the qualitative data and findings will be the establishment trustworthiness, Lincoln and Guba (1985) as cited by Polit and Beck (2010) suggested a criterion for developing trustworthiness: credibility, dependability, conformability and transferability.

3.8.1 Credibility

Credibility refers to confidence in the truth of the data and its interpretations (Polit and Beck, 2010). Credibility will be enhanced through the use in-depth interviews and will be enhanced by co-opting experts on the field in the analysis of the data and its interpretation so as to increase the accuracy of the information to converge the truth. A minimum of one hour will be spend with participants for in-depth interviews and for observation to allow in-depth understanding of the content of lives of health care workers as they provide post abortion care services.

3.8.2 Dependability.

Dependability refers to the stability of the data over time and conditions **(**Polit and Beck, 2010). The team of independent reviewers will be engaged to scrutinise the data collection instruments and the data collection in order to determine that instrument collect the relevant information and that answers the research question so as to enhance its stability.

3.8.3 Conformability.

Conformability refers to the objectivity of the data, accuracy, relevance and common meaning achieved by two or more independent people. Involvement of independent reviewers is necessary to make sure that the findings reflect the participant's voice and not the researcher's biases **(**Polite and Beck, 2010).

3.8.4 Transferability.

Polit and Beck (2010) described transferability as the extent to which the findings can be applicable to other settings or similar groups. To ensure transferability, the results will be shared with various health care workers to verify if they represent the knowledge and practice of PAC in the facilities.

3.9 Data analysis

The data analysis procedure will involve analysis of quantitative data and qualitative data. Quantitative data will be analysed using Statistical Package for Social Science (SPSS) version 23. To examine the research question, a binary logistic regression will be conducted to determine if the independent variables predict the dependent variable. The binary logistic regression is an appropriate statistical analysis because the purpose of research is to determine if a set of independent variables predict a dichotomous dependent variable. For this research study, the independent variables are training and experience; independent variables are knowledge, attitudes and practice. Logistic regression provides a quantified value of strength, removing confounding effects.

Microsoft excel will be used for the purpose of data presentation of descriptive statistics which will be generated by the researcher. Descriptive statistics organises and summarise numerical data gathered from a sample (Nieswiadomy, 2008). Further, the descriptive statistics will include measures of central tendency (e.g., mean, mode and median). Variability of the distribution would also be described to show the extent to which the score differ from one another, the range and the standard deviation (SD) will be described. Descriptive statistics will enable the researcher to report knowledge, practice and attitudes of the study participants and identify the relationship between the variables.

Conceptual Content analysis method will be used to analyse the qualitative data. Data will be collected and analysed simultaneously (Creswell, 2006). The first step is to identify the concepts which are answering the research question of the study. Identification of common phrases will be made and given codes so as to reduce the bulkiness of the data. Content areas that are represented in both data sets will be compared, contrasted and merged in the discussion tables. The quantitative analysis will be conducted alongside the qualitative

analyses in order to integrate data to answer the question: What is the health care workers knowledge, attitudes and practice towards post abortion care in Gaborone health facilities.

3.10 Estimation of duration of study

Duration of study is estimated to be eight months including the time of seeking permission for the study, recruitment of participants, data collection, analysis and dissemination of the results to the stakeholders.

3.11 Dissemination of results

The results of the study will be disseminated through conferences, feedback to the stakeholders through written report and published in refereed journals where information could be accessible.

3.12 Limitations of the study

The study is undertaken by a part time student who is facing challenges in doing both research work and meeting the obligations of the employer. Another limitation is associated with funding because the researcher does not have sponsorship to accomplish the research work.

3.13 Summary

This chapter discussed the methods: Including the research design, study population, the sampling procedure and the instruments for data collection and analysis and ethical considerations. Copies of the tools to be used for the study and the consent form are attached in the appendices.

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APPENDICES

Appendix 1: Request for permission to conduct research

University of Botswana

School of Graduate Studies

Private bag 00706

Gaborone

03 January 2018

The Principal Research Officer

Health Research Unit

Ministry of Health

Private bag 0038

Gaborone

UFS: Head of department, School of nursing

Dear Sir/ Madam

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH

This letter seeks to request permission to conduct research study with title "Health care workers knowledge, attitudes and practice towards post abortion care services in Gaborone health facilities". I am Master of Nursing Science student, studying at the University of Botswana. The study is a partial fulfilment requirement for the programme. The study will be conducted at selected government health care clinics and Princess Marina Hospital.

Participation in the study is voluntary; the nature of the study will be discussed with the participants, those who consent will be will be asked to fill a questionnaire which will last

about 45- 60 minutes. Some participants will be engaged in in-depth interview or observation for period of one (1) hour.

Participants may not directly benefit from the study; however results from the study may contribute new information to the body of knowledge within the nursing and midwifery profession and health care in general. The results of the study may also inform training of nurses and midwives and the implementation of post abortion care.

Please find enclosed the research proposal.

Yours faithfully

Lesedi Mosebetsi

Appendix 2: Request for permission to conduct research

University of Botswana

School of Graduate Studies

Private bag 00706

Gaborone

03 January 2018

The Coordinator

Gaborone District Health Management Team

Private bag RW 004

Gaborone

UFS: Head of department, School of nursing

Dear Sir/ Madam

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH

This letter seeks to request permission to conduct research study with title "Health care workers knowledge, attitudes and practice towards post abortion care services in Gaborone health facilities". Permission is sought to recruit participants who will volunteer to respond to the questionnaire from the selected government clinics in Gaborone health district. I am Master of Nursing Science student, studying at the University of Botswana.

Participation in the study is voluntary; the nature of the study will be discussed with the participants, those who consent will be will be asked to fill a questionnaire which will last about 45- 60 minutes. Some participants will be engaged in in-depth interview or observation for period of one (1) hour.

Participants may not directly benefit from the study; however results from the study may contribute new information to the body of knowledge within the nursing and midwifery profession and health care in general.

The results of the study may also inform training of nurses and midwives and the implementation of post abortion care. The study is a partial fulfilment requirement for the programme.

Yours faithfully

Lesedi Mosebetsi

Appendix 3: Request for permission to test the research instrument

University of Botswana

School of Graduate Studies

Private bag 00706

Gaborone

03 January 2018

The Coordinator

South East District Health Management Team

Private bag 14

Ramotswa

UFS: Head of department, School of nursing

Dear Sir/ Madam

RE: REQUEST FOR PERMISSION TO CONDUCT A PILOT STUDY TO TEST THE RESEARCH INSTRUMENT.

This letter seeks to request permission to do a pilot test in your clinics so as to test the research instrument that will be used for data collection. The study title is "Health care workers knowledge, attitudes and practice towards post abortion care services in Gaborone health facilities". I am Master of Nursing Science student at the University of Botswana. The study is therefore a partial fulfilment requirement for the programme.

Permission is sought to recruit participants who will volunteer to respond to the questionnaire from the selected government clinics in Ramotswa. Some participants will be engaged in in-depth interview or observation for period of one (1) hour.

Participation in the study is voluntary; the nature of the study will be discussed with the participants, those who consent will be will be asked to participate in testing of the

instruments. Participants may not directly benefit from the study; however results from the study may contribute new information to the body of knowledge within the nursing and midwifery profession and health care in general.

The results of the study may also inform training of nurses and midwives and the implementation of post abortion care.

Yours faithfully

Lesedi Mosebetsi

Appendix 4: Demographic Profile

English version

Code number_____ **Date_____**

Topic: Health care workers knowledge, attitudes and practice towards post abortion care services in Gaborone health facilities.

Instructions: Please indicate your answer by writing or ticking (√) the appropriate answer in the space provided.

Section A

1. Facility name_____
2. Telephone _____
3. Age in year's _____
4. **Sex**: female 01 ☐ Male 02 ☐
5. **Nationality**: Motswana ☐

   Other: Specify _____
6. **Church affiliation** _____
7. **Marital status / Living arrangement**

   Single ☐ Married ☐ Divorced ☐ Widow ☐

   Cohabitation ☐
8. **Highest level of educational qualification**

   Certificate ☐ Diploma ☐ Degree ☐ Masters ☐ Doctorate (PHD) ☐
9. **Professional qualification (s**)

   Nursing ☐ Midwifery ☐ Doctor ☐ Gynaecologist ☐ Obstetrician ☐

10. **Employment status**

Permanent and pensionable ☐

On contract ☐

SECTION B: In-depth Interview Guide

Introduction:

- You are requested to respond verbally to the following questions which will guide in answering the question on the health care workers knowledge, attitude and practice towards post abortion care.
- The interview will be recorded in an audio tape which will be destroyed after transcription.
- Please describe as thoroughly as possible giving details according to your knowledge, attitude and practice of post abortion care.

1. What are the common reasons for seeking health care for post abortion client in this facility?

2. What type of post abortion care services are provided in this facility?

3. What is the procedure that is followed when a client comes with incomplete abortion?

4. Who provides post abortion care services?

   Probe: who provides emergency care, evacuation of the uterus, pain management, counselling referrals?

5. Which methods of uterine evacuation are used for incomplete abortion?

Probe: what determines the type of uterine evacuation used?

6. What type of clients should be provided with post abortion care?

7. Which drugs, supplies and equipment are available in this facility?

8. What kind of training did you receive in relation to providing PAC services?

9. How long in terms of years of experience have you been providing PAC services?

10. What do you think could be done to improve PAC services in this facility?

KAELO YA POTSOLOTSO: DIPOTSO KA GA WENA

Setswana version

Setlhogo: Patlisiso ka kitso, mekgwa and ditlamelo tse badiri ba botsogo ba difang badirisi mo dikokelong tsa Gaborone.

Ditaelo: Araba dipotso tse di lateng ka go kgwarela karabo (√) kgotsa go kwala mafoko a a tshwanetseng.

Kgaolo ya ntlha

1. Leina la kokelo _____
2. Nomore ya mogala _____
3. Palo ya dingwaga _____
4. **Bong**: 01.Mosadi ☐ 02.Monna ☐
5. **Morafe**: Motswana Morafe o mongwe (tlhalosa) _____
6. **O leloko la kereke efe?** _____
7. **Seemo sa lenyalo**

Ga ke a nyala / nyalwa ☐ ke nyetse /nyetswe ☐ ke tlhadile ☐ ke Motlholagadi ☐

Ke nna le mokapelo ☐

8. **Seemo sa thuto**

Certificate ☐ Diploma ☐ Degree ☐ Masters ☐ Doctorate ☐

9. **Tiro e o e e ithutetseng**

Kgwarela tsotlhe tse di tshwanetseng (√)

Booki ☐ pelegiso ☐ Bongaka ☐ Bongaka jwa pelegi ☐

10. **Seemo sa phiro**:

Modiri wa sennela ruri ☐

Modiri wa konteraka ☐

Kitsiso:

- O kopiwa go araba dipotso tse di latelang go thusa go araba potso ka ga kitso, maitsholo le go fa ditlamelo morago ga tshenyego ya boimana.
- Potsolotso e, e tla gatisiwa ka sekapa mantswe mme e fetolelwe ko mokwalong, , sekapa mantswe se tla senngwa morago ga thanolo.
- O kopiwa go tlhalosa ka botlalo ka fa go kgonagalang ka teng o o fa dintlha ka kitso ya gago, ka maitsholo le ditlamelo tsa morago ga tshenyego ya boimana.

1. Ke mabaka afe a a dirang gore batho batle go kopa dithuso mo lefelong le?
2. Ke dife dithuso tsa morago ga tshenyegelo boimana tse di fiwang mo kokelong e?
3. Thulaganyo e e salwang morago fa motho a tsile go kopa ditlameo tsa morago ga tshenyegelo boimana ke di efe?
4. Ke modiri wa mofuta ofe yo o fang ditlamelo tsa morago ga tshenyego ya boimana?

Dipotso tse di gwetlhang dikgang

Thuso ya potlako e fiwa ke bodiredi bofe?

Go tlhatswa popelo go dirwa ke badiri bafe, go ritibatsa ditlhabi, bogakolodi le go romela ko dikokelong tsa seelo se se kwa godimo?

5. Go dirisiwa mofuta ofe wa go tlhatswa popelo?

Dipotso tse di gwetlhang dikgang: Ke eng se laolang go tlhopiwa ga mofuta wa go tlhatswa popelo?

6. Ke bafe ba kopa dithuso ba ba tshwanelwang ke go fiwa ditlamelo tsa morago ga tshenyego ya boimana?
7. Ke dife dikgwetlho tse di lebaneng badiri ba botsogo malebang le go fa ditlamelo tsa morago ga tshenyego ya boimana
8. Ke eng se o akanyang seka dirwa go tokafatsa ditlamelo tse di fiwang mo kokelong e?

Bokhutlo jwa dipotso **Ke a leboga**

Appendix 5: Survey Questionnaire

Title: Health care workers knowledge, attitudes and practice towards post abortion care services in Gaborone health care facilities.

Participant Code Number: _____ Date _____

Instructions: Please indicate your answer by writing or ticking (√) the appropriate response in the Column provided.

Section A: demographic data

1. Facility name_____
2. Telephone _____
3. Age in years _____
4. **Sex**: Female 01 ☐ Male 02 ☐
5. **Nationality**: Motswana ☐

   Other: Specify _____
6. **Church affiliation** _____
7. **Marital status / Living arrangement**

   Single ☐ Married ☐ Divorced ☐ Widow ☐

   Cohabitation ☐
8. **Highest level of educational qualification**

   Certificate ☐ Diploma ☐ Degree ☐ Masters ☐ Doctorate (PHD) ☐
9. **Professional qualification** (s)

   Tick all that apply (√)

   Nursing ☐ Midwifery ☐ Doctor ☐ Gyaenacologist ☐ Obstetrician ☐

10. **Employment status**

A. Permanent ☐

b. Contract ☐

Section B: Health workers' knowledge on post abortion care services.

Please answer the following questions by circling letter next to the correct response.

11. What is the recommend time for evacuation of the uterus for a client who has incomplete abortion?
    A. 2 hours
    B. 3 hours
    C. 4 hours
    D. 24 hours

12. Which of the following are signs of an incomplete abortion?
    A. Vaginal bleeding
    B. Open cervical os
    C. Lower abdominal pains
    D. Offensive vaginal discharge

13. Which of the following methods of uterine evacuation is recommended for pregnancy which is **less than 12 weeks**?
    A. Oxytocin
    A. Misoprostol
    B. Dilatation & Curettage
    C. Manual Vacuum Aspiration

14. What are the common side effects of medication that the patient may experience after evacuation of uterus using misoprostol?

    A. No side effects
    B. Epigastric pain
    C. Bleeding increases
    D. Headache and fainting

15. What will be the appropriate management of a client who needs IUCD after Manual Vacuum Aspiration who has no signs of infection?

IUCD may be inserted:

A. Immediately
B. Within 1 week
C. After 6 weeks
D. After 6 months

Instruction

Tick either True (T) OR False against the appropriate statements in the provided space.

NO	STATEMENT	T	F
16.	Pre-procedure counselling on all available methods for uterine evacuation should be given to all patients		
17.	Management of pain and control of infections are part of the priority care for post abortion care clients to prevent fatality		
18.	Safe abortion is performed within the first 16 weeks of pregnancy		
19.	A client may fall pregnant within 10 days after evacuation of the uterus		
20.	The patient does not feel any discomfort during the evacuation of the uterus		

Thank you for your participation **End of test**

Provider attitudes towards PAC service provision.

21. Please rate the following statements according to how you feel about the provision of post abortion care.

ATTITUDE	**Strongly Agree 1**	**Agree 2**	**Neither 3**	**Disagree 4**	**Strongly disagree 5**
a) Providing PAC services is important					
b) It is wrong to provide PAC services					
c) Pac services should be given as an emergency management					
d) Unmarried women should not have sex before marriage					
e) Youth should be provides with PAC services					
f) Youth should not have sex until they are married					
g) PAC clients need psychological counselling					
h) PAC clients need to be punished for committing unsafe abortion					
i) Privacy and confidentiality important in the management PAC clients					

22. Do you provide PAC services in your current facility?

YES ☐ NO ☐

23. If no, what are the reasons for not providing PAC services?

_____

24. A. What do you think could be done to improve PAC services in this facility?

Tick all that apply (√)

1. Facilitative supervision/mentoring	
2. In-service training	
3. Improve equipment supply	
4. Improve drug supply	
5. Provide a private counselling area	
6. Provide IEC material	
7. Do community mobilisation	

25. B. Others specify

_____

_____

End of questionnaire **Thank you for your participation**

QUESTIONNAIRE / POTSOLOTSO

Setlhogo: Patlisiso ka kitso, mekgwa le ditlamelo tse badiri ba botsogo ba difang badirisi mo dikokelong tsa Gaborone.

Nomore ya moarabi _____ Letsatsi_____

Ditaelo: Araba dipotso tse di lateng ka go kgwarela **(**√**)** karabo kgotsa go kwala mafoko a a tshwanetseng.

KGAOLO YA NTLHA: DIPOTSO KA GA WENA

1. Leina la kokelo _____
2. Nomore ya mogala _____
3. Palo ya dingwaga_____

4. **Bong**: 01.Mosadi ☐ 02.Monna ☐
5. **Morafe**: Motswana ☐ Morafe o mongwe _____

6. O leloko la kereke efe? _____

7. Seemo sa lenyalo

Ga ke a nyala/ nyalwa ☐ ke nyetse/ nyetswe ☐ ke tlhadile ☐ ke Motlholagadi ☐

Ke nna le mokapelo ☐

8. **Dithuto tse ke di fitlheletseng**:

Certificate ☐ Diploma ☐ Degree ☐ Masters ☐ Doctorate (PHD) ☐

Tiro e ke e ithutetseng

Kgwarela tsotlhe tse di lebaneng (√)

Booki ☐ Pelegiso ☐ Bongaka ☐ Bongaka jwa bomme ☐

9. **Seemo sa phiro**:

Modiri wa sennela ruri ☐

Modiri wa konteraka ☐

Section B: Kitso ya badiri ba botsogo ka ditlamelo tsa morago ga tshenyegelo boimana.

Ditaelo**: Araba dipotso tse di tse di lateng ka go agelela karabo e e lebaneng.**

11. Ke efe nako e e tshwanetseng go tlhatswa popelo fa tshenyego boimana e sa felela?

Go tlhatswa popelo go tshwanetse go dirwa mo lobakeng lwa....

A. Oura tse pedi
B. Oura tse tharo
C. Oura tse tse nne
D. Letsatsi

12. Ke dife dikai tsa tse di latelang tse di supang gore tshenyego boimana ga e a felela?

A. Go tswa madi ka ko bosading
B. Go bulega ga molomo wa popelo
C. Ditlhabi ko tlase ga mpa
D. Monko o o nkang go tswa mo bosading

13. Ke tsamaiso efe ee siametseng go thusa motho yo o tlhokang lupu morago ga go senyegelwa ke boimana fa go sena dikai tsa tshwaelo ya megare epe?

    Lupu e ka tsenngwa :

    A. Ka nako ya go fa thuso

    A. Mo sebakeng sa beke

    B. Morago ga beke tse thataro

    C. Morago ga kgwedi tse thataro

14. Ke difе ditlamorago tse di ka ikutlwelwang ke molwetsi morago ga go tlhatswa popelo?

    A. Ga go na ditlamorago
    B. Botlho mo setshwabung
    C. Go tswa madi go a oketsega
    D. Go opiwa ke tlhogo le go idibala

15. Ke efe mefuta ya go tlhatswa popelo e e dirisiwang fa dibeke tsa boimana di le ko tlase ga 12 (lesome le bobedi) ?

    A. Molemo wa tiripi (oxytocin)
    B. Molemo wa Misoprostol
    C. Tirisi ya ditshipi
    D. Go goga ka vacuum

Ditaelo: **kgwarela (√) ka fo supa boammaruri (B) kgotsa Go se boammaruri (G)**

Go bapa le diele tse di latelang mo bokosong e e lebaneng.

Palo	**Diele**	**B**	**G**
16.	Balwetsi botlhe ba tswanetse go itsisiwe ka mefuta yotlhe ya go tlhatswa popelo pela ga e dirwa		
17.	Go ritibatsa ditlhabi le go alafa tshwaelo ke megare ke karolo ya popota ya go fa ditlamelo tsa morago fa tshenyego ya boimana go thibelo loso		
18	Go fedisa boimana mo go babalesegileng go dirwa mo bekeng tsa ntlha tse di lesome le borataro		
19.	Motho o ka ima mo malatsing a a lesome morago ga go tlhatswa popelo.		
20.	Molwetsi ga a utlwe go tshwenyega gope ka nako ya go tlhatswa popelo		

21. Maitsholo a badiri ba botsogo malebang le go fa dithuso tsa morago ga tshenyego ya boimana.

Kgwarela karabo tsotlhe tse di lebaneng (√)

Mokgwa / Maitsholo	Ke dumela thata 1	Ke a dumela 2	Ga ke tsee lethakore lepe 3	Ga ke dumele 4	Ga ke dumale gotlhelele 5
a) Go botlhokwa go fa dithuso tsa morago ga tshenyego ya boimana					
b) Ga go a siama go fa dithuso tsa morago ga tshenyego ya boimana					
c) Dithuso tsa moraga ga tshenyego ya boimana ke dithuso tsa potlako					
d) Bomme ba ba sa nyalwang ga ba tshwanela go tlhakanele dikobo pele ga lenyalo					
e) Banana ba tswanelwa ke ditlamelo tsa PAC					
f) Banana ga ba tshwanela go tlhakanele dikobo ba ise ba nyalwe					
g) Balwetsi ba tshenyegelo boimana ba tlhoka bogakolodi					
h) Balwetsi ba tshenyegelo boimana ba tshwanetse go otlhaelwa go senya boimana ka fa go sa babalesegang					
i) Sephiri le go thusediwa fa bothokong go botlhokwa mo tlamelong ya PAC					

22. A lo fa dithuso tsa morago ga tshenyego ya boimana?

Ee ☐ Nnyaa ☐

23. Fa karabo e e fa godimo e le nnyaa, tlholosa?

_____

24. **A.ke eng se se ka dirwang go tokafatsa ditlamelo mo kokelwang e mabapi le go thusa ba ba latlhegetsweng ke boimana?**

Kgwarela karabo tsotlhe tse di lebaneng (√)

1. Go nonotsha bokgoni ka thotloetso le go supegediwa	
2. Ithutontsho mo tirong	
3. Go tokafatsa seemo sa go nna teng didirisiwa	
4. Go tokafatsa seemo sa go nna teng melemo	
5. Go nna le lefelo lele faphegileng la bogakolodi	
6. Go nna teng ga dipampitshana tsa go anamisa kitso	
7. Go kgothatsa setshaba	

B. Tse dingwe tlhalosa

_____

Ke a leboga **Bokhutlo jwa potsolotso.**

Appendix 6: Observation checklists

Instructions: Rate the performance of the service provider for each task using the following scale.

Key: **0** -tasks not performed

1 - task not performed correctly

2- task performed correctly but was not done according to step by step process

3 -tasks efficiently and precisely performed

N/A- task not required

Step/ task – for PAC counselling -Getting ready	0	1	2	3	N/A
1. Greet the woman/ couple with respect and kindness					
2. Introduces self to the client					
3. Assure the necessary privacy and confidentiality					
4. Assess the patient for shock and other life threatening conditions and takes action					
5. if any complications are found, stabilises the patient and transfer if necessary					
6. Takes history-menstrual history and last normal menstrual period					
7. Ask about family planning method used					
8. Ask about pregnancy symptoms					
9. Ask about incomplete abortion symptoms-vaginal bleeding, lower abdominal pains and vaginal discharge					
10. Ask about fever, chills and malaise					
11. Discusses her reproductive goals /plans as appropriate					
12. If the client is considering contraceptive : She should be assisted to choose a method					

Checklist before the MVA procedure for uterine evacuation	0	1	2	3	N/A
Task/step					
1. Tells the client what is going to be done and encourage her to ask questions					
2. Informs the patient that there may be discomfort during the procedure and the provider informs the client before that that step.					
3. Ensures that the client has emptied the bladder					
4. Cleans the perennial area for the patient					
5. Asks the client about allergies to medications					
6. Provides pain medication and antibiotics (prophylaxis)					
7. Provides sterile equipment – cannula, MVA equipment- disinfects the work area					
8. Use appropriate protective clothes, wash hands with soap and water and dries them					

Performing MVA procedure	0	1	2	3	N/A
1. Administer analgesia					
2. Insert vaginal speculum to see the cervix					
3. Applies aseptic technique					
4. Uses no touch technique with cannula and maintains sterile field throughout the procedure					
5. Ensures thoroughness of evacuation –examines tissues for completeness					
6. Pays attention to the client throughout procedure and give reassurance					
7. If client chose IUCD- inserted immediately					
Post procedure checklist					
8. Transfers the client to recovery area					
9. Monitors the client status immediately after the procedure- vital signs, bleeding and comfort					
10. After recovery assist the client to choose FP method if not given earlier					
11. Gives client discharge instructions and a follow up date					

Step/ task – Medication abortion checklist	0	1	2	3	N/A
1. Greet the woman/ couple with respect and kindness					
2. Introduces self to the client					
3. Assure the necessary privacy and confidentiality					
4. Assess the patient: Confirm that the client is eligible for medication abortion					
5. Pre- procedure counselling-ensure that client was counselled on all available methods for uterine evacuation appropriate for her condition					
6. Confirm that the patient understands common side effects and their management if necessary: pain, bleeding, fever/chills, nausea and vomiting, diarrhoea, headaches/fainting, dizziness.					
7. Inform the client that 2-8% of women may require additional intervention if the drug fail- surgical intervention.					
8. Inform client about warning signs and inform her to consult a health facility if experiencing: severe pain, fever for more than four (4) hours, and vaginal discharge with foul smell. No bleeding seven days after treatment (continuation) of pregnancy.					
9. Explain dosages and administration of mifepristone and misoprostol to the client: **For pregnancies up to 12 weeks gestation**: • take one (1) tablet of 200mg mifepristone with water today(mark the time on her file/card • On day 3 take four (4) tablets of misoprostol (800mg) sublingually					

Contraceptive counselling and method provision checklist	0	1	2	3	N/A
1. Greet the woman respectfully and with kindness					
2. Assure necessary privacy and confidentiality					
3. Obtain brief history including reproductive history					
4. Obtain contraceptive history : The type of method used -How the method was used - Ask if the method was discontinued and why - Concerns with the method					
5. Ask about fertility goals					
6. Provide contraceptive counselling using brochure or guidelines: discuss all the method according to client needs.					
7. Explain to the client that she can get pregnant as soon as the next ten (10) days					
8. Provide the client with her method or refer if the method is not available at the facility					
9. If family planning method is not take immediately provide client with temporary method e.g. condom					
10. Confirm with the woman that she understands what to do if she experiences any side effects or problems with the chosen method.					
11. Provide follow up instructions; when to review					
12. Address other reproductive needs (STIs, HIV) as appropriate					

Appendix one 7: Consent to participate in research study

Participant code no----------

Title of the study: Health care workers knowledge, attitudes and practice towards post abortion care in Gaborone health care facilities.

Background: The purpose of the study is to assess health care workers knowledge, attitudes and practice towards post abortion care in Gaborone health care facilities, and come up with the recommendations that will be used to improve quality of the PAC services, a copy this consent form will be given to you.

Principal Researcher: Ms Lesedi Mosebetsi

I understand that I am being asked to participate in a research study. The purpose of the study is to assess health care workers knowledge, attitudes and practice towards post abortion care services in Gaborone health care facilities. Lesedi Mosebetsi, a Master of Nursing science student researcher studying with the University of Botswana has discussed with me the nature of this study. Information gathered from this study will be used make the recommendations to improve quality of the Post Abortion Care services. I realise that participating in this study is voluntary and that I may withdraw at any time. I am asked to participate in data collection through, self administered questionnaire, in depth interview or observation. I understand that no identity will be revealed when information is collected, stored or analysed.

Risks of and discomfort of the study: Post abortion care may be a sensitive topic and uncomfortable topic to reflect on at times. Participants are informed that they free not to answer any part of the questionnaire that they are uncomfortable with. Answering questions which may reflect on the management of the organisations such as availability of equipments,

drugs and utilisation of guidelines for client management may make some participants uncomfortable for fear of victimisation at the work place; assurance that the information will be kept confidential and secure.

Potential benefits of the study: Information gathered from this study will be used to make recommendations to improve quality of the Post Abortion Care services and inform the curricula for Nursing and Midwifery. There will be no monetary or any incentive given to the participants.

There are no known risks or direct benefits in participating in this study. However the information obtained from this study may be used to improved post abortion care services.

I have read and understood this consent form and all my questions have been answered. I agree to participate understand that I will be given a copy of this consent form.

_____ _____

Signature of participant Date

_____ _____

Signature of researcher Date

Contact

If you have any questions concerning the research you may contact the researcher at:

Lesedi Mosebetsi
P O BOX V202
Ramotswa
Telephone: 5391330
Mobile 72257769

Appendix 8: Time line

This research is expected to be completed in ten (10) months from 1st February 2017 ending 31st November 2018. The following table demonstrates how the study is organised including: The process for ethical approval, collecting data, data analysis and report writing.

Time	**Activity**	**Description**
1st February 2018	Ethical approval	Submission of the proposal for ethical approval by the institutional review board of the University of Botswana and the Ministry of Health.
TESTING THE INSTRUMENT		
16th February 2018 to 28th February 2018	Recruitment of participants for pilot testing the instruments and pilot testing.	Recruitment of participants and respondents and testing the instruments for validity and making amendments

CONDUCTING THE STUDY		
Time	**Activity**	**Description**
16th March 2018 to 31st March 2018	Recruitment of participants for the study and data collection	Recruitment of health care workers (midwives, doctors, specialists and nurses) for self administered questionnaires.
1st April 2017 to 15th April 2018	Recruitment of participants for the study and data collection	Recruitment of health care workers (midwives and nurses) for interview
16th April to 2018 to 30th April 2018	Recruitment of participants for the study and data collection	Recruitment of health care workers (midwives) for observation
1st May 2018 to 30th June 2018	Data collection continue and development of the data base for data entry in SPSS spreadsheet	Collection of data and concurrent data analysis for interview and observation, and analysis for the quantitative study and merging the results

Time	**Activity**	**Description**
1st July 2018 to 30th July 2018	Report writing	The report will show the knowledge, attitude and practice of health care workers in Gaborone health facilities.
1st August to 2018 to 5th August to 2018	Sharing the results	Sharing the results with the stakeholders: Ministry of health and Gaborone District health management team and university of Botswana

Appendix 9: Research Budget

BUDGET ITEM	UNIT COST/ MULTIPLYING FACTOR	TOTAL COST
A. Stationary/supplies		
• A4 photocopying paper	10 x P70.00 each	P700.00
• USB	1x 200 each	P200.00
• Pen (ink)	200 x P2.00 each	P400.00
• Audio recorder	1 x 500 each	P500.00
• 2 batteries	10 x 15.00 each	P150.00
	Stationary total	**P1950.00**
Typing and Printing		
• Permission letters	6 Letters at P10.00 per page	P60.00
• Questionnaire/ data collection instrument	9 pages x 1 copy at P10.00 per page	P90.00
• Interview guide	3 pages x 1 copy at P10.00 per page	P30.00
• Observation checklist	5 pages x 30 at P10.00 per page	P150.00
• Research proposal	95 pages at P10.00 per page	P1020.00
	Typing total	**P1323.00**

Photocopying		
• Permission letters	6 copies at P2.00 per page	P12.00
• Questionnaire/ data collection instrument	100 copies x 9 pages at P2.00 per page	P1800.00
• Interview guide	3 pages x 2 copy at P2.00 per page	P12.00
• Observation checklist	5 pages x 30 at P2.00 per page	P300.00
• Research proposal	6 copies x 95 pages at P2.00 per page	P1224.00
	Total photocopying	**P3348.00**

TRANSPORT **Permission letters**		
• Ministry of Health • Princess Marina Hospital	Return trip P4.00 x 2 x 2 Return trip P4.00 x 2 x 2	P16.00 P16.00
• Gaborone District Health Management Team	Return trip P4.00 x 2 x 2	P16.00
• South District Health Management Team	Return trip bus fare and taxi fare P 22.00 x 2	P44.00
• Pilot testing	P4.00 x 2 x 3 days	P24.00
• **Data collection** Princess Marina hospital • Gaborone facilities • Research assistants allowance	P4.00 x 2 x 3 days P4.00 x 2 x 12 x 3 days P300 x 2 x 3 days	P24.00 P288.00 P 1800.00
Meals	**45.00 X 13 days**	**P765**
	Total transport and meals	**P2969.00**

Binding		
Final research proposal	6 copies x P150.00 per copy	P900.00
Final research report	6 copies at P150.00 per copy	P900.00
	Binding total	**P1800.00**
	GRAND TOTAL	**P11390.00**
	Contingencies 10%	**P1390.00**
	Total	**12780.00**