

**KNOWLEDGE AND UTILIZATION OF POST ABORTION CARE
SERVICES AMONG WOMEN OF REPRODUCTIVE AGE IN
OBANLIKU LOCAL GOVERNMENT
AREA OF CROSS RIVER STATE**

M.Sc. DISSERTATION

BY

**EYAM, MARY EKPOR
PG/M.Sc/09/54125**

SUBMITTED TO

**DEPARTMENT OF NURSING SCIENCES
FACULTY OF HEALTH SCIENCES AND TECHNOLOGY
COLLEGE OF MEDICINE
UNIVERSITY OF NIGERIA
ENUGU CAMPUS**

APRIL, 2016

TITLE PAGE

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**IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE
AWARD OF M.Sc. IN NURSING (MATERNAL
AND CHILD HEALTH)**

**SUPERVISOR:
Dr. (Mrs.), MADUBUKO G.U.**

APRIL, 2016

APPROVAL PAGE

CERTIFICATION

This is to certify that this research work titled (Knowledge and utilization of post-abortion care services among women of reproductive age in Obanliku Local Government Area of Cross River State Nigeria) is the original work of Eyam Mary Ekor, with Registration Number PG/M.SC/09/54125, a post graduate student in the Department of Nursing Sciences. The work embodied in this dissertation is the original and has not been submitted in part or full for any other degree in this or any other university or college.

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(Student)

Date

Dr. (Mrs.), Madubuko G.U.
(Supervisor)

Date

DEDICATION

This research work is dedicated to the Almighty God and to my father Mr. Daniel E. Enim.

ACKNOWLEDGEMENT

I acknowledge the Almighty God for His faithfulness, infinite mercy, divine protection and provision during the course of this study.

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ABSTRACT

The purpose of this study was to determine the knowledge and utilization of post abortion care among women of reproductive age (15 ÷ 49 years) in Obanliku Local Government Area of Cross River State, Nigeria. The research utilized a descriptive survey design and a sample size of 350 women of reproductive age (15 ÷ 49), selected from each of the 10 communities in the area. A structured questionnaire was used as instrument to collect data. Information obtained from the questionnaire was analyzed using the Statistical Package for Social Science (SPSS) version 21. Descriptive statistics in terms of mean and standard deviation were used; while one way Analysis of Variance (ANOVA) was used to test hypotheses. The findings of the study showed that majority 253(72.3%) of the respondents had understanding of what post abortion care is. Majority 264(75.4%) had understanding that family planning can prevent death arising from unsafe abortion. Majority 88(48.4%) who had miscarriage/abortion did not use any health facility. Only few used the hospital. Majority 88(48.4) did not use any method of family planning. Reasons such as distance to the health facility, cost of obtaining PAC services, husband's support and availability of health care services provider influenced non-use of post abortion care services. There was significant mean difference in women's understanding of post abortion care due to their educational qualification ($P < .05$, Critical $F = 2.37$). There was also a significant difference in the mean use of post abortion care services based on their occupation. ($P < .05$, critical $F = 2.37$). Based on these findings, it was recommended that PAC should be made one key component base service delivery to improve training of community based health care providers, case identification and referral while intervention needs to be put in place by stakeholders.

CHAPTER ONE

INTRODUCTION

Background to the Study

Abortion is illegal or restricted in many developing countries causing women to seek unsafe abortion that can result in serious complications such as anaemia, septicaemia, infertility and death. Globally, an estimated 40 ÷ 50 million abortions occur annually and nearly half of these are unsafe (Centre for Reproductive Rights, 2010). Worldwide unsafe abortion is common with an estimate of 19 million unsafe abortions occurring annually, resulting in 70,000 deaths and 5 million women suffering disability (Evans, Otieno ÷ Masaba, Eichleay, McCarraher, Hains Worth, Makumi etal, 2013).

World Health Organization (2010) defines unsafe abortion as any procedure for terminating an unplanned pregnancy either by persons who lack the necessary skills or is conducted in an environment that lacks the minimal medical standards or both. Tragically, unsafe abortion is the most easily preventable cause of maternal mortality. In Nigeria, the abortion law prohibits induced abortion except for medical reasons in order to save the life of the woman (Adinma, Ikeako, Adinma, Ezeama & Eke, 2010). In spite of the law, it has been estimated that 610,000 induced abortions occur yearly in Nigeria (WHO, 2010). Due to restrictive abortion laws, lack of access to safe abortion and lack of quality post abortion care in some developing countries; millions of mothers have risked and lost their lives prematurely. Over 40% of the total deaths due to unsafe abortion have occurred in Africa making it a leading cause of maternal mortality in the region (WHO, 2010).

In Nigeria, unsafe abortion accounts for approximately 11% of all maternal deaths and similar figures abound in other sub-Saharan African countries with restrictive abortion laws (Collins, Umeora & Adeoye, 2012). At the international conference on population and development held in Cairo, Egypt in 1994, the question of unsafe abortion was recognized as a major public health problem. At this conference, participants called for prompt high quality and sympathetic medical services to treat the complications of unsafe abortion (Kumbi, Melkamu & Yeneneh, 2008). More so, participating governments agreed that family planning services should be expanded and improved to avoid repeated abortion. According to Guttmacher Institute (2011), abortion related deaths and disability can be prevented in three ways: by preventing unplanned pregnancy, by providing a safe legal abortion, and by providing post abortion care (PAC).

Post abortion care as a comprehensive approach consists of a series of medical and related interventions designed to manage complications of spontaneous and induced abortion, both safe and unsafe. The care was introduced in the public health systems around the world since the 1994 International Conference on Population and Development and was programmed to meet the needs of abortion complications and at the same time be cost effective. The post abortion care concept was developed as a way to reduce maternal morbidity and mortality especially in settings where abortion laws are restrictive (Billings, Crane, Benson, Solo & Feters, 2007). The approach included: emergency treatment of incomplete abortion and its complications, family planning counseling and services, and linking the emergency treatment along with other reproductive health services (Kumbi et al, 2008).

Recently, the Post Abortion Care ConsortiumCommunity Task Force developed an expanded and updated model which includes two more elements, that is, providing appropriate counseling based on individual needs and community-provider partnership in prevention of unsafe abortion and care (Collins et al, 2013). These are important strategies for developing countries where access to safe abortion is restricted and knowledge and practice of family planning is low. In addition, due to severe poverty and lack of access to health care services in general, PAC is one of the very few opportunities for women to seek medical services and benefit from reproductive health and family planning services.

Similar to other maternal health services, utilization of post abortion care has also remained low although access to better quality post abortion care services have improved significantly in the last few years (WHO, 2013). As a result of this low usage, most women of reproductive age are liable to develop complications associated with abortion. The study therefore, aims to assess the knowledge and utilization of post abortion care services among women of reproductive age in Obanliku local government area of Cross River State.

Statement of Problem

The World Health Organization estimated that 210 million pregnancies occur each year of which 38% are planned and 22% end up in abortion (WHO, 2007). Nearly 5.5 million African women have unsafe abortion, and 36,000 of these women die from complications while a million or more experience short or long term illness and disability (WHO, 2013).

A study conducted in Ebonyi State University Teaching Hospital in 2012 revealed that one thousand three hundred and forty four (1,344) gynecological cases were admitted and of these, five hundred and fifty six (556) cases were abortion complications. In another study conducted in the University of Benin Teaching Hospital in 2010, one hundred and four (104) patients with complicated induced abortion were admitted over a five year period, about twenty one patients per year. The incidence was 27.4 per 1000 live births and 3.93% of gynaecological admissions. A similar study conducted in six States of Nigeria (Ekiti, Gombe, Kaduna, Kano, Kogi, Lagos) showed that 36% of women admitted for abortion related reasons had serious complications.

Statistics from selected health facilities in the northern part of Cross River State have shown that abortion accounts for over 10.9% of maternal mortality though significant under reporting is likely. A significant proportion of abortions and complications such as haemorrhage, septicaemia, and uterine perforation occur among women aged 25 years and below and only few facilities in the northern part of Cross River State are able to provide care for women with abortion related complications (Public Health Department 2014). More so, in Obanliku Local Government Area, the researcher observed an increased maternal mortality rate of 5% from complications of unsafe abortions. Such complications as hemorrhage, septicemia, anemia, are common due to lack of safe abortion services (Public Health Department, 2014). The question is, whether the women are knowledgeable about post abortion care services or not? If they know, are these services being utilized? This challenge motivated the researcher to assess the knowledge and utilization of post abortion care services in Obanliku LGA in the northern part of Cross River State.

Purpose of the Study

The purpose of this study was to assess knowledge and utilization of post abortion care services among women of reproductive age (15 ÷ 49 years) in Obanliku Local Government Area of Cross River State.

Research Objectives

The specific objectives were to:

1. Determine what women understand as post abortion care
2. Determine the extent to which women use post abortion care services
3. Identify reasons for non-use of post abortion care services among women of reproductive age.

Research Questions

1. What do women understand as post abortion care?
2. To what extent do women of reproductive age use post abortion care services?
3. What are the reasons for non-use of post abortion care services among women of reproductive age?

Hypotheses

1. There is no significant difference in the women's knowledge of post abortion care based on their educational qualification.
2. There is no significant difference in the women's use of post abortion care services based on their occupation.

Significance of the Study

Findings of this study will give Health care providers an insight into the knowledge and utilization of post abortion care services and will reveal reasons why these women are not making proper use of post abortion care services.

This information will also be used by Healthcare providers including Midwives in the planning and designing of different programmes that will improve their knowledge and help these women to make better use of post abortion care services. This could be done by integrating such services into already existing treatment programmes and reinforcing education on post abortion care so as to improve women's level of knowledge that may change their attitude.

Findings will also expose areas of gap which will enable stakeholders in maternal and child health such as midwives to educate and counsel the women appropriately as well as correct misconceptions if any concerning PAC services.

Findings will help in strengthening management systems through quality supervision and budgetary controls by the Ministry of Health to all health facilities in order to promote PAC services.

It will also provide opportunities for further research studies using other modes of inquiry such as qualitative designs. The implementation of the findings of this study will help in reducing maternal morbidity and mortality rates in Cross River State specifically and Nigeria in general.

Scope of the Study

The study was delimited to women of reproductive age (15 ÷ 49 years) in Obanliku Local Government Area of Cross River State. It was also confined to the following variables, assessment of knowledge, extent of utilization and reasons for non use of post abortion care services.

Operational Definition of terms

For the purpose of this study the following terms were defined:

Knowledge of post abortion care services: Refers to the information and understanding that women of reproductive age (15 ÷ 49 years) have regarding post abortion care services such as emergency treatment of incomplete abortion and its complications, family planning counseling and services.

Utilization of post abortion care services: The extent to which women make use of post abortion care services that are located within their reach. Such services include emergency treatment of incomplete abortion and its complications, family planning counseling and services.

Women of Reproductive Age: Women between the ages of 15 ÷ 49 years.

CHAPTER TWO

LITERATURE REVIEW

This chapter focused on the review of related literature and was discussed under the following: Conceptual, theoretical, empirical review and summary of related literature.

Conceptual Review:

Post Abortion Care (PAC)

Post abortion care: A term originated by International Project Assistance Services (IPAS), a U.S based non-governmental organization in the early 1990s, is a global initiative in response to the problems of maternal morbidity and mortality resulting from abortion complications. The term was first articulated as a critical element of women's health initiatives in IPAS 1991 strategic planning document, which encouraged the integration of post abortion care and family planning services in the health care systems, as a means of breaking the cycle of repeat unplanned pregnancy and improving the overall health status of women in the developing world (WHO, 2012).

Millions of women of reproductive age each year have abortions that are unsafe, performed either by persons lacking the necessary skills or in an environment lacking the minimal medical standard or both (WHO, 2011). However, the complications of unsafe abortion are a major contribution to maternal mortality and morbidity in developing countries and have been recognized by the international community as a key public health issue. Approximately 22 million unsafe abortions take place annually (WHO, 2012) many of which require medical care for complications such as retained products that may lead to infection and hemorrhage, injury to internal organs and psychological trauma. Many women also face long term health problems such as chronic pain, pelvic

inflammatory disease and infertility. Women who have suffered miscarriage (spontaneous abortion) and/or still birth may experience some of these complications, and also need emergency follow up treatment.

However, the role of safe abortion services in the improvement of women's health was recognized in the 1994 International Conference on Population and Development (ICPD). At this conference, participants agreed that in circumstances where abortion is not against the law, such abortion should be safe. In all cases women should have access to quality services for the management of complications arising from abortion (ICPD, 1994).

Elements of Post Abortion Care

The original PAC model consisted of three elements drawn specifically from health care delivery providers perspective (WHO 2001) without taking due cognizance of the need to accommodate the psychological and physical feelings of the client as well as the community who are the beneficiaries of the services. The three elements of the original PAC model include the following:

- Emergency treatment services for complications of spontaneous or unsafe induced abortions
- Post abortion family Planning counseling and services, and
- Links between emergency abortion treatment services and comprehensive reproductive health care provider perspective (WHO, 2001).

However, in May 2002, the PAC consortium community task force expanded the model to five elements which reflected the provider and a consumer perspective, an enhanced vision of high quality sustainable service (Evans, et al, 2013).

The model's five elements are:

- Community and service provider partnership for prevention of unplanned pregnancy and unsafe abortion, together with the mobilization of resources and ensuring that services reflect and meet community expectation and needs.
- Counseling to identify and respond to women's emotional and physical health needs and other concerns.
- Treatment of incomplete and unsafe abortion and its complications including the use of Manual Vacuum Aspiration (MVA).
- Contraceptive and family planning services to help women prevent an unplanned pregnancy or practice birth spacing and
- Linkage to reproductive and other health services that are preferably provided on-site or via referrals to other accessible facilities in the provider's network (WHO, 2001).

Women centered post abortion care was developed in 2005 as a step forward from the original PAC. It is a comprehensive approach to meeting each woman's medical and psycho-social needs at the time of treatment for abortion complications (Post Abortion Care Consortium, 2014). In the course of providing women centered post abortion care by health careworkers, factors influencing women's need for and access to care such as personal circumstances and living conditions are taken into cognizance to ensure quality service delivery (Evans et al, 2013). Post abortion care has found wide acceptability in developing countries as a very important tool in the combat of maternal mortality from abortion. In countries like Nigeria and Ghana, and many other developing countries of Asia, middle level providers especially Nurse / midwives have been trained on PAC and

have been employed widely in the provision of abortion treatment services especially in rural areas (Adinma, Ikeako, Adinma, Ezeama & Eke, 2010). The models five elements shifted the focus from facility based medical treatment to a public health approach that responds to women's broader sexual and reproductive health needs (Evans, et al, 2013).

Community and Service Provider Partnership

This element of the model recognizes community member's vital role in treatment, prevention and advocacy efforts. Community health education and mobilization have been identified as key strategies to combat unsafe abortion, increase access to and quality of post-abortion care programs and improve women's reproductive health and lives (Baird, Billings & Demuvakor, 2010).

To achieve universal local access to sustainable, high quality post abortion care and related health services, community leaders and advocacy groups, lay health care workers, traditional healers and formally trained service providers must work in partnership.

Corbett and Turner (2010) outlined the following as Components of this partnership;

- Education to increase contraceptive use and thereby help women prevent unplanned pregnancy, space birth and reduce unsafe abortion.
- Participation by community members in decisions about availability, accessibility and cost of services.
- Education about obstetric emergencies and appropriate care seeking behavior.
- Mobilization of community resources, including transportation, to ensure that women experiencing obstetric emergencies receive timely care.
- Access to services for special population of women, including adolescents, women with HIV or AIDS, women who have experienced violence or genital cutting, women who have sex with other women, refugees, commercial sex workers, and women with cognitive or physical disabilities.

- Advocacy for holistic, human rights ÿ based services that meet community expectation priorities and needs.
- Planning for sustainability

Counseling

Effective counseling enhances a woman's understanding of the psychological circumstances surrounding her reproductive past and future, and increases her confidence in her ability to participate in her health care (WHO, 2013). Client centered counseling ensures that women rather than their providers make voluntary choices about their treatment, contraceptive methods and other options. Post abortion care counseling covers more than fertility and contraception (Engender Health, 2009) although it must emphasize these elements and consist of more than information provision and sensitive communication. This counseling provides an opportunity to help women explore their feelings about their abortion, assess their coping abilities, manage anxiety and make informed decision.

Counseling is a vital element of care, moving post abortion services from being purely curative to being preventive. It helps providers determine when women need special care because of extreme emotional distress or circumstances such as young age, inexperience with the health care system or fear of discrimination (Tabbutt ÿ Henry & Graff, 2010). Some expected benefits of counseling are that client ÿ provider interaction will be more respectful, treatment will be less and use of other health services will increase, their satisfaction with the health care encounter will rise and health outcome will improve (Baird et al, 2010).

Counseling in post abortion care services aims at soliciting and affirming women's feeling thereby providing emotional support throughout the post abortion care visits. It also ensures that women receive accurate and appropriate information about their medical condition, test results, treatment, pain management option, and follow-up care. With client-centered counseling, women also would have understanding of how to prevent complications after the procedure and those they know when and where to seek care for complications if they arise (Tabbutt-Henry, et al, 2010).

Treatment:

Treatment remains a critical part of post abortion care because women who had an incomplete spontaneous or unsafely induced abortion will, in many cases, need uterine evacuation and other medical intervention (WHO, 2012). However, the revised model includes language, recognizing that post abortion care does not always involve complications, and that complications are not always life-threatening but may be in the absence of swift and appropriate medical attention. It further recognizes that safe, effective treatment involves the use of vacuum aspiration either manual or electrical, these includes standard infection prevention precautions, informed consent, appropriate pain management, sensitive physical and verbal patient contact and follow-up care (Tolossa, Meshesha & Abajobir, 2013).

Family Planning and Contraceptive Services

The revised post abortion care model recognizes that some women receiving post abortion treatment need family planning services to help them space births, while others need contraceptive services because they have no plans to conceive. Therefore the model emphasizes the importance of overcoming barriers to offering family planning and

contraceptive services during the same visit and at the same location as post abortion treatment. When a facility does not provide these services at the time of abortion related treatment, the opportunity to provide them may be lost and women may not make another visit to that facility or another, for such services (WHO, 2012).

Therefore, programme goals for the future should include universal access to and when desired, provision of family planning services following abortion whether induced (safe or unsafe) or spontaneous. The need for at least a six month pregnancy interval after a miscarriage/abortion before attempting to become pregnant again guides providers to recommend family planning for all women receiving post abortion care services (WHO, 2010). According to WHO guidance, in the immediate post abortion period, if there are no complications, women can safely use a full range of contraceptive methods, including condoms, spermicidal, oral contraceptives, emergency contraceptive pills, injectables, implants, IUDs, male and female sterilization (WHO, 2012).

However, in the case of post abortion complications, an IUD can be inserted after ruling out infection and/or genital injury. After initiating a contraceptive method, there is need to ensure that women be connected to a continuous contraceptive supply and to ongoing support to assist with contraceptive continuation. This can be made possible through the provision of information, education and communication (IEC) materials that include instructions about how to use their preferred method (USAID, 2012).

In addition, if the facility is not the one that a woman would go to for supply of her method, or if it does not have her method of choice, providers need to link the woman to a referral site. Ideally, the woman would leave the treatment facility with an interim

method to use until she obtains her preferred method at a referral site. For this to happen, facilities, contraceptive service infrastructure must be adequate, and providers must be knowledgeable about which methods are appropriate for women following treatment. (Engender Health, 2009).

Making a wide range of birth spacing practices and contraceptive methods – including, where authorized, emergency contraception available to all women of reproductive age is an effective strategy for preventing unplanned pregnancies and unsafe abortion, and for helping women achieve their reproductive desires. Facilities must ensure that treatment is not contingent upon women’s acceptance of a contraceptive method (Evans et al, 2013).

To help women who want no more children avoid unplanned pregnancy, family planning providers should make sure that they offer highly effective long acting and permanent methods as well as reversible methods suitable for birth spacing. For example, programs need to retrain clinicians to provide counseling on and insertion of IUDs particularly Copper T380A, which is effective for 12 or more years (Curtis, Huber & Moss-Knight, 2010).

According to Kidder et al, (2009), post abortion family planning improves sustainability and institutionalization of post abortion family planning counseling and services over time. In Peru and Turkey, studies showed that institutions that have strengthened the family planning component of PAC have sustained and improved family planning counseling and services well after technical assistance ended. Logically, all women receiving post abortion care should also receive contraceptive information, and a method

if they wish, likewise family planning providers should be equipped to support women who have unintended pregnancies (Benson, 2013).

However, integrating family planning and post abortion care is often a challenge. Barriers include: administrative and physical separation of post abortion and family planning units in health facilities, unavailability of a range of contraceptive methods, lack of training among abortion providers in contraceptive delivery, and women's lack of knowledge about contraceptive option (Benson, 2013). Furthermore, effort can be made to ensure supplies and train health center staff, in order that the majority of women who receive abortion care will leave with a contraceptive method even in countries with low contraceptive use rates and restrictive abortion law (WHO, 2013).

Reproductive and Other Health Services

An important relationship in the new model is between effective counseling and increased use of the reproductive and other health services at the time women receive post abortion care, preferably at the same facility. When a facility is unable to provide needed services, it should have functional mechanism in place for making referrals, (either within the facility or another one) receiving feedback from referral sites or providers and performing follow-up, such mechanisms should include consistent and accurate record keeping (Corbett et al, 2010).

Corbett, et al (2010) observed that, the following additional services might be offered: Education about the prevention of sexually transmitted infections, including HIV, as well as screening, diagnosis, and treatment. Services addressing gender-based violence, including screening, counseling and referral. Infertility diagnosis, counseling and

treatment. Nutrition screening, education, treatment of nutritional deficiencies, hygiene education, counseling and treatment for reproductive i related cancers.

Uterine Evacuation Methods

World Health Organization (2012) noted that uterine evacuation to remove retained products of conception is often a life-saving component of post abortion care and should be performed promptly when it is needed. Some clinical situations for which uterine evacuation is required for post abortion care include; inevitable abortion, incomplete abortion, missed abortion and molar pregnancy. In cases of missed abortion, there is no need for immediate evacuation, and the procedure can be schedule for later.

World Health Organization (2013) pointed out that there are several methods of accomplishing uterine evacuation in the first trimester. These include vacuum aspiration that involves the use of electrical or manual suction to evacuate the uterus, surgical methods such as sharp curettage also known as dilatation and curettage. Dilatation and evacuation, the use of pharmacological agents such as prostaglandin misoprostol which has demonstrated potentials in post abortion care treatment. However, within these categories, there are various techniques that can be used, depending on the skills and training of the staff, the equipment and medical agents available. The woman's individual clinical situation, uterine size, length of pregnancy and personal preferences are also key factors in determining which method is most appropriate.

Vacuum aspiration technology is considered an essential service by many national and international authorities, such as World Health Organization and the International Federation of Gynaecology and Obstetrician (Tuncalp, Grulmezoglu & Souza, 2010).

Vacuum aspiration also known as suction curettage, is a method by which the contents of the uterus are evacuated through the use of plastic or metal cannula that is attached to a vacuum source. The vacuum aspiration procedure involves dilatation of the cervix, followed by either an electronic or manual aspiration to evacuate the uterus. Depending on the uterine size and retained products of conception, vacuum aspiration takes between three to ten minutes to complete procedure (Allen & Marshall, 2012). World Health Organization (2012) pointed out that vacuum aspiration and medical abortion are recommended techniques to manage incomplete, missed or induced abortion. More so, suction is created with either an electrical or a manual pump. Both methods use the same level of suction and so can be considered equivalent terms of effectiveness and safety.

World Health Organization (2012) opined that Manual Vacuum Aspiration (MVA) is the most preferred method of uterine evacuation for post abortion care treatment and has a 99.5% success rate. However, World Health Organization recommends that sharp curettage should be used only if manual vacuum aspiration is not available (WHO, 2012). Manual vacuum aspiration is one of the safest and most effective medical procedures out of several options a woman has to end a pregnancy up to 12 weeks into the pregnancy. It involves evacuation of the uterine contents by the use of a hand-held plastic aspirator. The procedure time for manual vacuum aspiration is 5 – 15 minutes and is performed in settings such as doctors' office, clinics or emergency rooms.

More so, Allen et al, (2012) stated that manual vacuum aspiration is the most appropriate for the treatment of incomplete abortion for uterine sizes up to 12 weeks from the last menstrual period (including miscarriages, spontaneous abortion and removal of retained

products from an induced abortion), first trimester abortion and endometrial biopsy. That when compared to the sharp curettage method of abortion, the use of manual vacuum aspiration requires less cervical dilatation and is associated with less blood loss, shorter hospital stay and a reduced need for anaesthesia (Tolossa et al, 2013). Aggarwal (2011) also pointed out that manual vacuum aspiration can be carried out by qualified health care providers including physicians and mid level providers can offer MVA to their patients. A study by the University of California San Francisco has demonstrated that Nurse practitioners, Nurse Midwives and physician assistant can be trained to provide manual vacuum aspiration (California program on Access to care, 2011). World Health Organization (2012) however recommends that all women receive pain management prior to manual vacuum aspiration. Analgesics (such as Ibuprofen) and local anaesthesia are sufficient to manage pain, although pain may increase with gestational age.

However sharp curettage, also known as dilatation and curettage is a surgical procedure that involves dilatation of the cervix with mechanical dilators or pharmacological agents followed by the use of sharp metal curettes to scrape the walls of the uterus. During the procedure, the patient usually receives general or vaginal anaesthesia or light or heavy sedation. Sharp curettage is used to evacuate the uterus for both first and second trimester treatment of abortion related complications. However, World Health Organization recommends that, since sharp curettage carries greater risk, such as higher level of pain medication, longer hospital stay and higher cost it should be used only when vacuum aspiration is not available. (Tuncalp et al, 2010).

Aggarwal (2011) is of the view that pharmacological methods such as the use of misoprostol, a prostaglandin analogue developed for the treatment of gastrointestinal

indications also has the effect of softening the cervix and stimulating uterine contractions. It is commonly used for labour induction and is recognized for use in conjunction with mifepristone for induced abortion. Misoprostol has shown promising results in treating missed abortion, and is currently registered in more than 80 countries for gastrointestinal indications (WHO, 2012). Although it is presumed to be available to some degree in all of those countries, there is wide regional variation in availability, with relatively little access across Africa and South Asia (WHO, 2012). Misoprostol is not advised in cases where delayed uterine evacuation could add significant risk to the woman, in such cases, vacuum aspiration is the preferred method of treatment. However, it is important to note that the responsiveness of the uterus to misoprostol increases with the length of gestation and excessive doses taken at later gestations can potentially cause uterine rupture. Also if a pregnancy continues after a woman attempts to induce abortion with misoprostol, the fetus may develop mobiu`s syndrome, limb defects or other congenital malformations (Evens et al, 2013).

Women's Understanding of Post Abortion Care

Post abortion care has become a major strategy in the reduction of maternal mortality both at the national and global level, yet maternal mortality in Nigeria remains high especially in rural areas due to lack of adequate knowledge and poor perception about the need to utilize this reproductive health service (Taiwo, 2012).

Similarly, Abiola (2012) observed that post abortion care knowledge and usage among reproductive age women is low. Despite a wide array of researches and reports on post abortion care and in spite of all the publicity and awareness creation that pervade the social media. An issue that can be said to influence the lack of knowledge about post

abortion care is the culture of silence that still surrounds most reproductive health issues (Taiwo, 2012). This is not surprising because, a lot of women lack the accurate knowledge on reproductive health matters.

Africans generally have also been observed to feel unable to discuss reproductive health matters across barriers of gender, age differences and religion (WHO, 2012). Women of reproductive age have been perceived to have the ability to obtain their knowledge about reproductive health haphazardly from a variety of sources of which most times are the wrong sources. This results in the circulation of incorrect and incomplete information among reproductive age women and the perpetration of widespread ignorance (Abiola, 2012). Researchers have shown that as many as 80% of patients at Nigerian hospitals with abortion related complications are women of reproductive age (Taiwo, 2012).

WHO (2013) suggested that, the reason why reproductive age women often opt for unsafe abortion include lack of accurate and comprehensive information about reproductive health, lack of appropriate reproductive health counseling and clinical services, non-use or ineffective use of contraceptives by reproductive age women, fear of partner, community leaders and religious rejection, financial and emotional inability to take care of the baby.

Contraceptives usage among reproductive age women is low at 30% and considerably lower than rates reported for developed countries (Mohammed & Obono, 2010). This goes on to show that contraceptive knowledge and access is inadequate along with spontaneity of women's sexual activities. Fear of future infertility is an overriding factor in reproductive age women's decision to rely on induced abortion rather than

contraception as many focus-group participants perceived the adverse effects of modern contraceptives on fertility to be continuous and prolonged, while they saw unsafe abortion as an immediate solution to an unplanned pregnancy and thereafter one that would have a limited impact on future fertility (Abiola, 2012).

Use of Post-Abortion Care Services

Each year some 35million abortions occur in developing countries (Curtiset al, 2010). Approximately 20 million of these unsafe abortions claim the lives of 67,000 women as a result of related complications (Curtis et al, 2010).

For many post-abortion patients, lack of family planning counseling and services quickly leads to another induced abortion, because fertility returns within two tothree weeks after an induced abortion (Nasy, 2010). This therefore makes it essential to ensure that post-abortion family planning counseling and service delivery are offered to all women, who present for emergency obstetric or post-abortion care, regardless of the method of treatment (sharp curettage, electric or manual evacuation) or place of treatment, as well as to all postpartum women(WHO, 2013).

However, a 2011 global evaluation of post-abortion care programmes found that in the delivery of post abortion care services, the second component of PAC (family planning counseling and services) did not receive as much attention as the first component (emergency treatment) (Cobb, 2011). A World Bank report further recommended that Post Abortion Care be strengthened by ensuring contraceptive counseling and that family planning services be provided in the same facility where uterine evacuation was performed to decrease opportunity costs (Lule et al, 2009).At the national level certain

barriers hinder the provision of post abortion care such as lack of sufficient financing for family planning in the national budgets, lack of adequate training, lack of supportive supervision and lack of availability of PAC services at health centers and other lower level facilities (Cobb, 2011).

Barriers to post abortion care services utilization also exist at the facility level and could be grouped into two categories; Guidelines on staffing and patient education materials (IEC): The lack of written guidelines for family planning in hospitals, insufficient staff for family planning counseling and service delivery, lack of IEC materials for client's education and the lack of access to contraceptive methods during the afternoon, night and weekend shifts. Secondly, the lack of availability of contraceptive methods at the service delivery point, even when contraceptives are available in the facilities is a barrier. Lack of availability of a wide range of methods, thus limiting clients choice, and lack of record-keeping systems that serve as a reminder to use the oldest stocks first, thereby preventing the expiration of methods before they are used, and of systems that note whether women receiving PAC services also receive family planning counseling and methods before they are discharged from the facility (Cobb, 2011).

At the provider level, the barriers include a lack of knowledge about the early return of fertility, denial of certain or all methods to some groups, such as adolescents or women who have not yet delivered a child, a lack of patient counseling on post abortion care procedure, timing of return to fertility, and choosing and obtaining a family planning method before discharge from the facility (Curtis et al, 2010). Furthermore, obstacles to the use of post abortion family planning services also exist at the client's level, which includes fear of side effects, a belief that the risk of becoming pregnant is low, due to age,

infrequent sexual intercourse or other reasons, lack of awareness or knowledge of family planning methods and partner disapproval of contraceptive use (Curtis et al, 2010).

Cobb (2011) said that the following measures can be used in order to promote adequate utilization of post abortion care services:

Decentralization: That the decentralization of services from tertiary hospitals to health centers and health post level has been successful in increasing the uptake of post abortion care services.

Community mobilization: Studies have shown that since 2004, the PAC community mobilization activities implemented in Bolivia, Kenya & Senegal have increased knowledge of family planning methods, raised awareness of complications related to unsafe abortion and reduced stigma regarding post abortion care.

Curtis et al, (2010) said that there are strong evidences that have been suggested as interventions to increasing post abortion family planning counseling and uptake, which should be integrated into the post abortion care programmes (PAC).

Offer family planning counseling and methods at the same location where the women receives emergency treatment.

Counsel women who have had a miscarriage and want to get pregnant soon to wait at least six months before trying to conceive. However, the delay reduces the incidence of maternal anaemia, premature rupture of membranes, low birth weight and preterm deliveries in subsequent pregnancies.

Inform male partners, when the woman agrees, about her condition, treatment, follow-up care and family planning method. Also male partners should be included in family planning counseling as the woman desires.

Train midwives to counsel PAC patients on family planning, STIs/HIV and nutrition, as well as to perform other aspects of PAC, including emergency treatment.

Use dedicated family planning Nurse Counselors rather than referrals to other organizations for contraceptive services, this helps to increase immediate contraceptive acceptance for PAC patients.

Conduct contraceptive technology updates and counseling workshops for providers at the primary level to reinforce skills in post abortion family planning counseling and method provision prior to discharge.

Reasons for Non Use of Post Abortion Care Services

Annually, approximately 205 million women worldwide become pregnant, and nearly one in five (40 -50 million) choose to terminate the pregnancy for various reasons (Schuster, 2012). Nearly half of all terminated pregnancies are estimated to be unsafe, and more than 80% occur in developing countries (Guttmacher Institute, 2011). The social, cultural and religious ambivalences associated with post abortion care services often complicate the decisions towards the utilization of these services. Although the decision may be very personal, it can also be influenced by political, economic and social factors. These additional influences leads to many questions and emotion, which makes the need for reliable and accurate information important (Schuster, 2012).

Adams(2012), recognized some of the factors that may influence women's knowledge and utilization of post abortion care services and contraceptives to include: unstable relationships with the male partner, career development, poverty, lack of social support, the need to care for other young children in the family, health problems, the diagnosis of fetal abnormalities, fear of parents, and pregnancy as a result of rape or incest. Abortion stigma is another factor that influences women to opt for unsafe abortion.

According to McCleary & Sills, McGonagle & Malhotra (2012), research over the last fifteen years has repeatedly documented that women's lack of knowledge and information is one of the major reasons for their non-use of PAC. However, studies have also proven that for women, knowledge often means: an understanding of how a method works, its potential side effects, how the duration and mechanism of a method makes it appropriate for their needs. Furthermore, where or through whom it can be obtained and at what cost, and what is required of them for consistent and correct use (Ringheim & Gribble, 2010). Data also indicates that in most settings, women are not aware of multiple method choices and the differences between them. In fact, there are few settings including industrialized countries in which women are well informed on all these aspects (McCleary et al, 2012).

By lack of knowledge, women also seem to be indicating that they are missing an understanding of how exactly sex, reproduction and contraception interconnects and how their bodies work (Ringheim et al, 2010). Therefore the way that knowledge is disseminated and transferred through communities often excludes women, or limits them to women's network that may be equally ignorant or misinformed. WHO (2013) points out that women in developing countries who want to avoid a pregnancy do not use

contraceptives mainly because of insufficient knowledge about the methods, fear of social disapproval or perception of husband's opposition, fear of side effects and concerns about health, problems with access and cost, but, woman's educational level, literacy, and access to media and health services also influences whether she uses contraceptives or not. Studies have also found out that for women in South Asia, Middle East and African settings, gender disparities in formal schooling continue to be a fundamental structural factor in limiting effective learning about sex and contraception (Bellows, Bellows & Warren, 2011).

Dezordo and Mishtal (2011) said that safe abortion remains inaccessible due to stigma. To him stigma is a negative attribute ascribed to women who seek to terminate a pregnancy that marks them internally or externally, as inferior to ideals of womanhood. However, the attributes ascribed to women who undergo abortion include "shame, murder, sinfulness and criminal". Though abortion dates back to the ancient times, and it is commonly done by many women around the world, it is thus surprising that it is widely stigmatized. Though it is quite difficult to obtain definite figures on its incidence, a number of researchers have produced intelligent estimates (Adams, 2012). Stigma causes great distress and sufferings to victims and those who help them terminate the pregnancies. It stems from a number of sources including family, friends and the society as a whole and can impact an individual's health in a number of ways, often acting as an obstacle for those who would otherwise seek support (Aniteye & Mayhew, 2011).

In addition, some health care providers are also precipitators of abortion stigma and sometimes victims. In most countries, even in the United States, health care providers who have undergone the necessary training and are offering safe abortion services, are

not respected, they are seen as criminals and are refused certain privileges (Boodman, 2010).

Kumar, Hessini and Mitchell (2011) opined that across cultural context, women seeking post abortion care services and contraception are frequently characterized as sinful, selfish, dirty, irresponsible, heartless or murderous. Recent literature is also beginning to document women's fear of being stigmatized as promiscuous and irresponsible by providers of emergency contraception (Najafi, Rahman & Juni, 2011). These labels tend to be especially repressive in dampening motivation for using contraception or safe abortion among adolescent girls because of their high degree of sensitivity to social sanctions. Kumar et al, (2011) observed that the most common fear associated with contraceptives is that it results in infertility. An increasing number of studies however have documented this concern in sub-Saharan Africa, South Asia and the Middle East. (Guttmacher Institute, 2010).

Research studies in Mali found that many women fear the pill and intrauterine devices (IUDS), as this could make them sterile (Guttmacher Institute, 2010). While in Nigeria, adolescents refrain from using contraception because they fear it could have adverse effects on future fertility (Otoide, Oronsaye & Okonofua, 2011). Furthermore many women cite fear of side effect as a reason for their non-use of modern methods of contraception such as weight gain, headaches and nausea among others. Similarly, the amenorrhea associated with several modern methods not only violates nature but creates suspicion among family and community members, leading to poor treatment or ostracization of women experiencing it (Otoide et al, 2011). As one study noted, amenorrhea in young women is perceived as evil, any contraceptive likely to induce

complications will be rejected not only for fear of pregnancy but also for this cultural reasons (Guttmacher Institute, 2010).

Cultural norms and values also explicitly influences many women's decision in seeking reproductive health services. Ringler (2009) noted that culture is the cohesive glue that binds communities together, but for many women, it is the hangman's noose on which their freedom is choked. Cultural norms and values exist in almost every society or community and vary from one society to another. They are mostly known among members of the society or community and passed from generation to generation. These norms and values are considered ideals for living and behavior and any deviations from them mostly result in some negative effects.

Religion also influences a woman's decision to safe reproductive health services. A central tenet to religion and cultural dictates that considers contraception or post abortion care to be wrong is that reproductive control options interfere with natural or God given processes, including a woman's expected role in bearing children (Srikanthan & Reid, 2010). According to Srikanthan et al,(2010), the different dimensions of religiosity include religiousness, orthodoxy, faith, belief, piousness devotion and holiness. Religiosity affects individuals in a number of ways including developing a sense of compassion, honesty and altruism as well as happiness and quality of life, physical and mental health. Very often, in women's daily lives this type of brooder prohibition against violating nature gets translated as fear of modern contraception because of their perceived invasiveness.

Disempowerment in the family and community is another factor that influences knowledge and utilization of post abortion care services. Studies have documented that there is a strong link between a woman's level of empowerment in the domestic and social spheres and her ability to make and act on reproductive decisions. Women's disempowerment in the family is often manifested in a number of ways: Limited mobility or lack of access to public spaces, lack of resources, lack of decision making authority and limited communication with powerful family members, and active interference, threats or violence (McCleary-Sills et al, 2012).

While in many respects the delivery of post abortion services and contraception is a supply side issue, the imbalance of power relationships between providers and their female clients is an important demand factor affecting women's ability to exercise reproductive control (UNESCO, 2011). This imbalance of power is gendered in two important ways. First, is the provider's perception and treatment of women as minors who require permission or decisions by others in order to make reproductive choices. Secondly, it is the provider's tendency to connect service delivery options with their personal judgment of women's morality, especially in the sphere of sexuality. This demand for reproductive control can be intentional or unintentional (UNESCO, 2011).

The post abortion care (PAC) Consortium (2014) observed that barriers to the comprehensive care service delivery also exist for each of the essential elements of the PAC model. These include:

For community and service provider partnerships: women are unaware of where, why and how to access PAC services, low literacy rate among women, community members

being uninformed about danger signs during pregnancy and stigma surrounding PAC which keeps many women (particularly younger women) from seeking services.

Counseling: providers may not have the skills or time for counseling; facilities do not ensure privacy and confidentiality during counseling and provider stigma.

Treatment: Discrimination against women seeking PAC treatment, since clinical protocols do not link PAC with emergency obstetric care (EMOC) as part of maternal health. Restrictions on provision of care by non-medical professionals and resistance to task sharing, lack of tools to access quality PAC, baseline assessment, quality of care assessment, continuity of care assessment and provider attitude also influences PAC services. Furthermore lack of understanding of medical treatment with misoprostol, which can be used for PAC at the primary care level to expand services or as an additional treatment method option for women. Family planning contraceptive services are not perceived as essential component of PAC service delivery. Logistic system for supply of instrument, equipment and commodities for emergency care (including MVA and misoprostol tablets) are lacking.

Theory Underpinning the Study

The theory of planned behavior/Reasoned Action was applied to this study. The theory was proposed by Icek Ajzen in 1985 to improve on the predictive power of the theory of Reasoned Action by including perceived behavioral control (Ajzen, 2002). The theory of Reasoned Action was in turn grounded in various theories of attitude such as learning theories, expectancy-value theories, consistency theories and attribution theories (Ajzen, 2002).

The Theory of Reasoned Action holds that, if people evaluate the suggested behavior as positive (attitude) and if they think their significant others want them to perform the behavior (subjective norm) this results in higher intentions (motivation) and they are more likely to do so (Sniehotta, 2009). A counter argument against the high relationship between behavioral intention and actual behavior has also been proposed by some researchers because of circumstantial limitations, though behavioral intention does not always lead to actual behavior. More so, behavioral intention cannot be the exclusive determinant of behavior where an individual's control over the behavior is incomplete. Ajzen introduced the theory of planned behavior by adding a new component, "perceived behavioral control". By this, he extended the theory of reasoned action to cover non-volitional behavior for predicting behavioral intentions and actual behavior.

Core Concepts and Statements

The theory of planned behavior is based on the following core concepts.

Behavioral belief: An individual's belief about consequences of a particular behavior.

The concept is based on the subjective probability that the behavior will produce a given outcome.

Attitude toward behavior: An individual's positive or negative evaluation of self performance of the particular behavior. The concept is the degree to which performance of the behavior is positively or negatively valued. It is determined by the total set of accessible behavioral beliefs linking the behavior to various outcomes and other attributes.

Normative belief: An individual's perception of social normative pressures, or relevant others beliefs that he/she should or should not perform such behavior.

Subjective norm: An individual's perception about a particular behavior, which is influenced by the judgment of significant others (e.g. parents, spouse, friends, teachers)(Amjad & Wood, 2009).

Control belief: An individual's beliefs about the presence of factors that may facilitate or impede performance of the behavior (Ajzen, 2002). The concept of perceived behavioral control is conceptually related to self-efficacy.

Perceived behavioral control: An individual's perceived ease or difficulty of performing the particular behavior (Koger & DuNann Winter, 2010). It is assumed that perceived behavioral control is determined by the total set of accessible control beliefs.

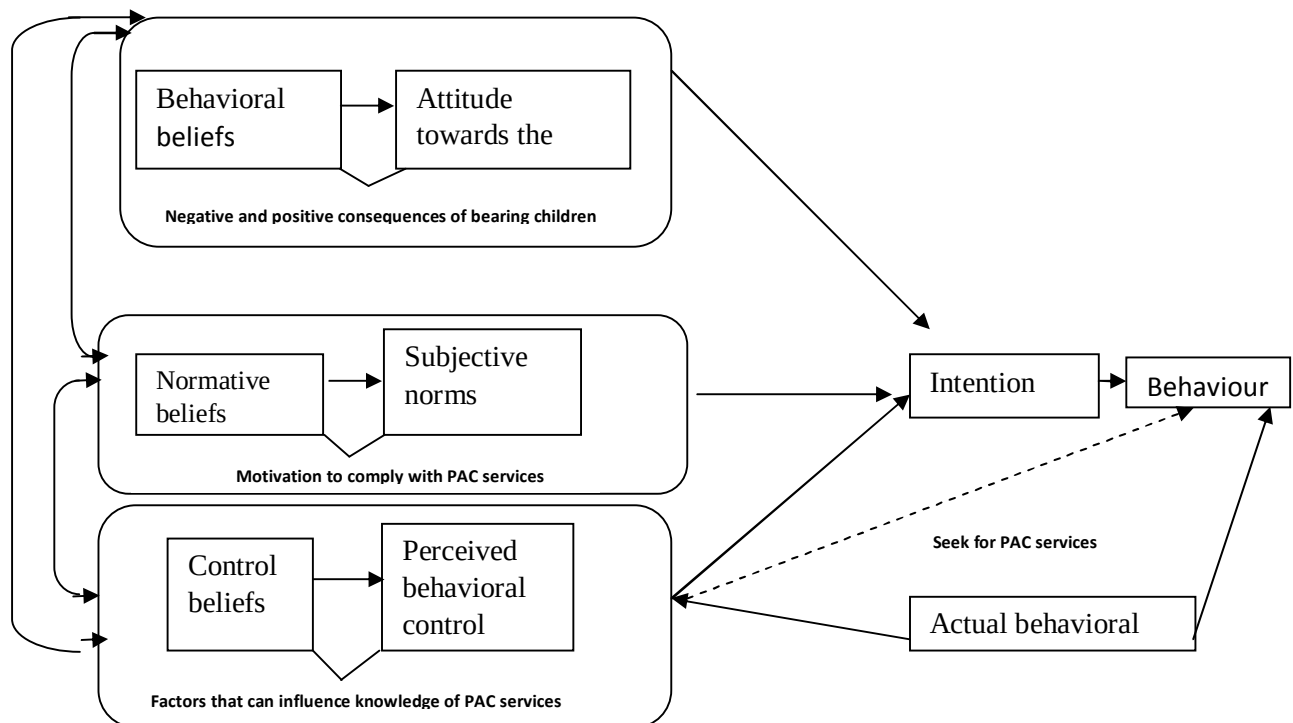
Behavioral intention: An indication of an individual's readiness to perform a given behavior. It is assumed to be an immediate antecedent of behavior (Ajzen, 2002). It is based on attitude toward the behavior, subjective norm and perceived behavioral control, with each predictor weighted for its importance in relation to the behavior and population of interest.

Behaviour: An individual's observable response in a given situation with respect to a given target. Ajzen said, a behavior is a function of compatible intentions and perceptions of behavioral control in that perceived behavioral control is expected to moderate the effect of intention on behavior, such that a favorable intention produces the behavior only when perceived behavioral control is strong.

The theory of reasoned action suggests that a person's behavior is determined by his/her intention to perform the behavior and that this intention is in turn, a function of his/her

subjective norm. The best predictor of behavior is intention. Intention is the cognitive representation of a person's readiness to perform a given behavior, and it is considered to be the immediate antecedent of behavior. This intention is determined by three things: their attitude toward the specific behavior, their subjective norms and their perceived behavioral control. The theory of planned behavior holds that only specific attitudes towards the behavior in question can be expected to predict that behavior. In addition to measuring attitude towards the behavior, it will also need to measure people's subjective norms – their beliefs about how people they care about will view the behavior in question. To predict someone intentions knowing these beliefs can be as important as knowing the person's attitudes. Finally, perceived behavioral control influences intentions. Perceived behavioral control refers to people's perceptions of their ability to perform a given behavior. These predictors lead to intention.

Major variables in the theory of planned behavior



Source: (Ajzen, 2002). Organizational, Behavioral and Human Decision Processes.

Human behavior is guided by three kinds of consideration, "behavioral beliefs", "normative beliefs" and "control beliefs". In their respective aggregates, "behavioral beliefs" produce a favorable or unfavorable "attitude toward the behavior", "normative beliefs" results in "subjective norm" and "control beliefs" gives rise to perceived "behavioral control". In combination, "attitude toward the behavior", "subjective norm" and "perceived behavioral control" lead to the formation of a behavioral intention (Ajzen, 2013). In particular "perceived behavioral control" is presumed to not only affect actual behavior directly, but also affect it indirectly through behavioral intention (Koger et al, 2010). As a general rule, the more favorable the attitude toward behavior and subjective norm, the greater the perceived behavioral control, the stronger the person's intention to perform the behavior in question should be. Finally, given a sufficient degree of actual control over the behavior, people are expected to carry out their intentions when the opportunity arises (Ajzen, 2013).

Application of Theory of Planned Behavior to the study

The theory of planned behavior is one of the most thoroughly tested and robust of the psychological models. Intentions, attitude, subjective norms and perceived behavioural control have been identified by health behavior theorists as four of the eight variables believed to account for most of the variance in any given behavior; the other variables being environmental constraints, ability, self-standards and emotion. The strength of the theoretical approach to understanding human motivation based on Ajzen's theory of planned behavior (1985) and Bandura's social cognitive theory (1977) is that it provides means of understanding both intrapersonal underlying reasons for the behavior and

reasons emanating from the individual's relationship with others or from perceived normative pressure. Understanding individual beliefs and motivations is important in itself, but because these beliefs are also formed and shaped by external forces, it is equally necessary to account for both individual and group influences.

Attitude and Beliefs: According to the theory of planned behavior, the intention to have a child or not to have a child is determined by three kinds of considerations (Ajzen, 2013). The first is behavioral beliefs; it refers to the perceived positive or negative consequences of having children and the consequences of having children and the subjective values or evaluations of these consequences. For a woman who believes that adopting a family planning method will prevent an unplanned pregnancy, which can possibly lead to an abortion, will naturally develop a positive attitude towards family planning. This positive attitude is as a result of the belief she has about family planning. The result of such a behavioral pattern is that of seeking family planning services and where there is a situation of threatened abortion, such a woman will seek health care from qualified personnel instead of other sources such as TBAS.

Normative and Subjective belief: This is the second consideration. According to the theory of planned behavior these have to do with a woman's motivation to comply with referents in question. These considerations combine to produce a perceived social pressure or subjective norm with respect to adopting a family planning method and seeking for safe abortion services from certified sources like hospitals or registered clinics. The relationship between normative beliefs and subjective norm with respect to women's knowledge and utilization of post abortion care is similar in structure to the expectancy value model of attitude. If a woman is reliably informed or she infers what

health care providers wants her to do about her fertility, the most likely option is for her to develop a positive attitude towards PAC. This positive attitude is closely linked to knowledge.

Control beliefs: This is the third consideration. These are concerned with the perceived presence of factors that can influence a woman's ability to acquire knowledge of PAC services and possibly utilize such services. Control beliefs produce a certain level of perceived control or self-efficacy in relation to PAC. The more favorable a woman's attitude and subjective norm with respect towards PAC, the greater her perceived control; the more likely it is that she will utilize the services.

Empirical Review

A study carried out by USAID (2011) looked at the knowledge, attitude and practice of post abortion care and family planning in Ethiopia. A total sample of 3,671 women was recruited for the study. The study employed a stratified multistage sampling technique with eight reporting domains. The design provided representative sampling for urban as well as rural areas of each region. A structured questionnaire with pre-coded answers was developed and administered to aid data collection. Data analyzed using descriptive statistics. The results from the study revealed that generally, knowledge of post abortion care and family planning methods appeared to be very high among women of reproductive age in the four regions covered by the survey. The findings further revealed that, though knowledge of the methods of contraception was high in the population, knowledge of specific methods was very low particularly of long term and permanent methods of contraception.

Akinola, Fabamwo, Tayo, Alokha, Oshodi & Osinusi (2008) carried out a study on unsafe abortion and post abortion care: patients profile and perceptions in Lagos, Nigeria. Descriptive study design was used. All 435 patients who consented were recruited for the study. A pre-tested and semi-structured questionnaire was used to aid data collection. The data analyzed using SPSS Version 11. Results showed that about 64% did not employ any contraception in between the abortions due to various misconceptions while 94% regarded abortion as an acceptable mode of contraceptive. Almost half of the respondents believed that contraception could predispose to infertility. These findings highlighted that the major components of post abortion care were deficient and will need to be incorporated into practice to attain the MDGs.

In a study carried out by Tsegay (2011), on knowledge, attitude and practice of public health practitioners towards safe abortion care services in Tigray regional State, of Ethiopia, a descriptive cross-sectional study was adopted. Five zones of the region were included in this study and inclusion and exclusion criteria were used to select different study participants and areas. A sample size of 334 health practitioners was randomly selected for the study. A self reported questionnaire was developed and used for the data collection. Data collected and analyzed using STATA 10 software statistical package. The findings of the study revealed that the general knowledge of the respondents on the basic comprehensive safe abortion care (SAC) services and family planning of the region was promising and it might have played its own role in the continual reduction of abortion related maternal deaths and complications.

Another study was also conducted by Mahadean, Khalil, Hamdan-Mansour, Sato & Imoto (2012), on knowledge, attitude and practice towards post abortion care and family

planning among women in the rural southern region of Jordan. The study used a descriptive design to gather information. A sample size of 807 ever-married women aged 15 to 49 years was utilized. Stratified random sampling technique was used to recruit women for the study. Data was collected using structural interview questionnaire with open and closed ended questions. Data analyzed using SPSS version 15.0, descriptive statistics in terms of mean and standard deviation. The results of the study showed that the women in the rural areas of the southern region of Jordan lacked the basic knowledge of post-abortion care and family planning as a method of birth control. In addition, 8.4% of the respondents claimed never to have heard about any method of avoiding pregnancy.

Furthermore, Adinma, Ikeako, Adinma & Ezeama (2010), conducted a study titled, Awareness and practice of post abortion care services among health care professionals in South Eastern Nigeria in 2010. The study utilized a descriptive cross sectional survey design. A sample size of 450 health care professionals was used. Multi-stage sampling technique was used to determine respondents for the study. A questionnaire was used to obtain information from the respondents. Data obtained was analyzed using Epi-info version 2001. The findings of the study revealed that the overall awareness of post abortion care services was high (75.5%) and therefore commendable, however awareness seems to be incomplete regarding the five elements of post abortion care and family planning.

In terms of use, Melkemu, Betre & Tesfaye (2010) considered the utilization of post abortion care services in three regional States of Ethiopia. The study employed a descriptive cross-sectional design. Simple random sampling technique was used to select a sample size of 1492 women of reproductive age, service providers, and key informants

of the sample districts. Both quantitative and qualitative study techniques including structured interview questionnaires, focus group discussion and in depth interviews were used for data collection. Multivariate statistics was used to analyze data. The findings of the study revealed that majority of the respondents preferred public health facilities. Furthermore the respondents gave reasons why they did not visit health facilities for post abortion care services and family planning such as lack of community support, unavailability of services, services were expensive, facilities were distantly located and lack of means of transportation.

Ansari, Zainullah, Mikim, Tappis, Kols, Currie, etal (2015) also conducted a study on Assessment of Post-abortion care in health facilities in Afghanistan. The study utilized a descriptive cross-sectional survey design with a sample size of 222 participants. Data collection was with the aid of a questionnaire. Descriptive and inferential statistics in terms of student t-test and chi- square tests was used to analyze data. The results of the study revealed that 78% of the facilities had manual vacuum aspirators, 75% had flexible canulas, and only 70% of the facilities had both items necessary for post abortion care provision. Furthermore both short and long acting contraceptives were available, though varied significantly across facility types in terms of supply. However, only 68% of all providers felt confident in their ability to perform the services. The study findings showed that though most facilities had adequate supply of the necessary equipments for post abortion care and family planning services, the capacity of the health care providers to deliver this services was limited resulting to under utilization.

Giaw and Regassa (2011) conducted another study on post abortion care and family planning services utilization in Mojo town of Ethiopia. The study employed a cross-

sectional design and a sample size of 551 women aged 15-49 selected through systematic random sampling technique. A pre-tested questionnaire was used for data collection from the participants. Data analyzed using Univariate and Bivariate statistics. The findings of the study revealed that the level of knowledge and approval of post abortion care and family planning were high, 91.5% and 82.2% respectively. However, the actual practice was found to be low, where only 38.3% were utilizing such services at the time of the survey.

Sundby (2013), considered a study on Access to post abortion care (PAC) in Burkina-faso: An ethnographic study Seydou Drabo in Oslo. This study utilized an ethnographic approach. 250 post abortion care patients, relatives and health care providers made up the study sample. In keeping with the research objectives a combination of ethnographic methods, were used for data collection including consultations of documents, observation and formal in depth interview as well as informal interviews. The data analysis was an ongoing process, during and after the data collection. Four interviews with health care providers and two interviews with women were transcribed during the field work. The findings from the study reveals that the utilization of post abortion care and family planning services is dependent on the perceptions and practices of the women, their relatives and the health care providers which are constructed by social norms, structural and organizational constraints regarding the provision of PAC and family planning.

Considering the reasons for non-use of post abortion care services, Appiah (2013) examined the psychosocial factors and their impact on unsafe abortion in the greater Accra region of Ghana. The study used a descriptive co- relational design. Convenience sampling technique was employed and a sample size of 100 respondents was selected

for the study. A questionnaire with a total of five scales was used for the purpose of data collection. Data analyzed using the statistical package for social sciences (SPSS) version 17.0. The results from this study showed that knowledge of Ghana's abortion laws, religious beliefs significantly predicted the utilization of post-abortion care and family planning services. On the other hand stigma and Ghana's cultural norms did not significantly predict the knowledge and utilization of post abortion care and family service in Ghana.

Awoyemi and Novignon (2014) looked at the demand for abortion and post abortion care in Ibadan, Nigeria. The study employed data from a hospital-based/exploratory survey carried out between the months of March to September 2010. A sample of 384 women of reproductive age was used. Data was collected using a questionnaire. Data used for the analysis was a source from a primary hospital based survey of women of reproductive age. Descriptive statistics was used to analyze data. A probit model was also fitted to determine the factors that influenced demand for abortion and PAC. The results showed that 62% of respondents demanded for abortion while 52.3% of those that demanded for abortion received post abortion care. The findings of this study suggest that while abortion is illegal in Nigeria, some women in the city of Ibadan do abort unplanned pregnancies. The consequence of this is the absence of proper post abortion care. The findings again showed that income was a significant determinant of abortion and post-abortion care demand. Women with higher income were more likely to demand abortion and post abortion care. Married women were found to be less likely to demand for abortion and post abortion care. Older women were significantly less likely to demand for

abortion and post abortion care. Mother's education was only statistically significant in determining abortion demand but not post abortion care demand.

Ayalnesh, Atsedo, Amare, Gebre and Atsedo (2013) also studied factors influencing utilization of post abortion care in selected government health institution, Addis Abba in Ethiopia. Institutional based cross-sectional study was conducted among 153 respondents aged 15-49 years. A structured pre-tested questionnaire was used for data collection. Data collected was entered into EPI-info version 3.5.1 and analyzed using SPSS version 20 software. The results of the study showed that 95% of the respondents had knowledge towards the elements of post abortion care and 69% of respondents were not utilizing post abortion care and family planning services, which revealed that though there was adequate knowledge, utilization of post abortion and family planning services was minimal.

In another study, Mudokwenyi Rawdon, Ehlers & Bezuident (2012) examined factors influencing post-abortion outcome among high risk patients in Zimbabwe. The study used a retrospective case-control design to compare two groups (cases and control) of post abortion women. The research population comprised of 4895 admissions for post abortion complications. The sample was drawn from hospital obstetric records of women who were admitted with post abortion complications from 1 January 1995 till 31 December 1997. For every case, two controls were selected. The post abortion cases and controls were identified from the admission and death registers. Each case was given a code number, which it shared with its selected two controls to avoid using the same controls twice for another case. The research instruments used were a hospital census form and an obstetric record form. The data was analyzed using chi-square and stepwise

logistic regression. The findings of the study revealed that a combination of advanced maternal age, high parity and social economic status reflected by high unemployment, seemed to have compromised the resilience of the post abortion women who died, though contraceptive use was a corner stone for preventing unwanted pregnancies.

Omo-Aghoja, Aghoja, Omo-Aghoja Okonofua, Aghedo, Umueri, Otayohwo, Feyi ï Waboso, Onowhakpor and Inikori (2009) carried out a study on factors associated with knowledge, practice and perceptions of contraception in Amukpe, Delta state in Nigeria. The study utilized a descriptive cross-sectional survey design. A convenient sample of 1,528 women of reproductive age was used. A well structured questionnaire was used for data collection which was preceded by a focus group discussion and in depth interviews to assess the views and perception of participants. Data from the survey was entered into a computer database using Epi - info 2000 software and further analyzed using univariate and bivariate statistics. The result revealed a high level of contraceptive awareness among the respondents. Majority, 92.3% had previous knowledge from relative/Friend, 31.7% from Nurses and 17.3% from Doctors. However 53.1% of respondents had never used contraception as an element of post abortion care. The findings however showed a high level of awareness and a low level of practice due to the following factors: ineffective conveyance of relevant information to clients, low literacy levels, extremes of reproductive age and parity, fear of side effects and lack of spousal consent.

Summary of Literature Review

This chapter reviewed related literature which was discussed under the conceptual, theoretical and empirical review. The conceptual review considered the concept of post abortion care. Post abortion care was first articulated as a critical element of women's

health initiative in IPAS 1991 strategic planning document, which encouraged the integration of post abortion care and family planning services in an attempt to break the cycle of repeated unwanted pregnancies especially in developing countries. The original elements of the PAC model consisted of three elements. However, in May 2002, the elements were expanded to five which reflected both the provider and consumer perspective. Several methods of uterine evacuation exist ranging from vacuum aspiration that involves the use of electric or manual suction to evacuate the uterus, surgical methods of dilatation and evacuation and the use of pharmacological agents. The post abortion period provides a critical opportunity to provide information on family planning services. Family planning and contraceptive methods in Nigeria have been divided into hormonal, intrauterine, Barrier method of contraceptives and Natural family planning method. The conceptual review also covered the four objectives of the study viz: Knowledge, use and reasons for non-use of post abortion care services. The theory of planned Behaviour/Reason Action was applied to the study. Empirical review covered the four objectives of the study.

Literature reviewed covered studies within and outside Nigeria. However, no study on PAC has been carried out in Obanliku Local Government Area of Cross River State. To this end, research gaps exist, and it is this challenge that has motivated the researcher to determine the knowledge and utilization of post abortion care services in Obanliku Local Government Area.

CHAPTER THREE

RESEARCH METHODS

This chapter presents the research designs, description of the area of study, population of the study, sample, inclusion criteria, sampling procedure, instrument for data collection, instrument validation and reliability, ethical consideration, procedure for data collection and method of data analysis.

Research Design

The study adopted a descriptive design to determine the knowledge and utilization of post-abortion care services among women of reproductive age in Obanliku Local government Area of Cross River State. A descriptive design aims at observing, describing and documenting aspects of a situation on the phenomenon of a life situation as it normally occurs (Polit & Beck 2008).

Area of Study

The area covered in this study is Obanliku Local Government Area in the Northern Senatorial District, of Cross River State, Nigeria. The Local Government Area is made up of Sankwala, Basang, Busi, Becheve, Utangha, Bisu, Bishiri South, Bishiri North, Bendi I, Bendi II, which make up the ten wards in Obanliku Local Government Area. The Local Government is bounded in the North by the Tiv people of Benue State, in the South by the Boki people of Cross River State, in the East by the Akwaya people of Cameroon republic and in the West by the Obudu people of Cross River State. Obanliku local government consists of ten political wards. The area lies between latitude 15⁰N and 5⁰S of the equator. The area has a total population of 109,633 people with 55,998 females and

53,635 male (Population Census, 2006). The common language of the people is Bishiri. Most of the people around the environment are civil servants, businessmen, traders and farmers. However, their major occupation is farming and the following crops thrive well in the area, yam, Rice, banana, pear, cocoa, and oil palm. The people experience both dry and wet seasons. The wet season begins from April and stops in October, while the dry season starts in November and terminates in March. During the dry seasons, people experience so much of harmattan and cold because of the hilly nature of their topography.

The people of Obanliku are predominantly Christians, a small percentage are Muslims and traditionalist. The local government has both traditional and orthodox health care services. The distribution of health centers and hospitals/clinics are such that every ward has access to health care services. The health facilities include one general hospital, 10 primary health centers, 68 health post and 5 private clinics. The general hospital and the other health facilities provide a lot of services which include provision of inpatient and outpatient services. Both general hospital and other health facilities are adequately staffed and they also render services to patients from Benue State, Cameroon and Cross River State respectively. The general hospital serves as a referral centre to other health facilities.

Population of the Study

The National programme on immunization (NPI) of the Federal Ministry of Health (2006) states that the population of women of child bearing age in every community is 22% of the entire population. 22% of the population of women of child bearing age (15-49 years) in Obanliku Local Government Area which is 55,998 is thus estimated to be 2,545. Therefore, this number represents the target population.

Sample

The minimum sample size of 346 was determined using the formula by Isreal (2009).

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

Where n = Sample size

N = population

e = level of error = 0.05

See appendix 2 for calculation.

Sampling Procedure

Simple random sampling procedure with replacement was used to select 5 wards out of the 10 political wards. 2 communities were randomly selected from each of the 5 wards from the list of the communities under it making a total of 10 communities. Each community formed a stratum for the study. 35 respondents wererandomly selected from each of the ten communities for the study. The respondents were selected from each community until the required number was obtained based on the inclusion criteria.

Inclusion criteria

Women of reproductive age (15 ï 49years).

Respondents who are willing to participate in the study.

Those residing within Obanliku Local Government Area as at the time of the study.

Instrument for Data Collection

The instrument for data collection was a researcher developed questionnaire consisting of 37 items presented in Sections A, B, C and D. Section A consists of 9 items on the demographic data of the respondents. While sections B, C & D are based on the objectives of the study. Section B consists of 11 close ended questions on the knowledge of post abortion care services. Section C consist of 7 items, While, section D consists of ten questions based on a four point likert rating scale of strongly agree (4 points), Agree (3 points), Disagree (2 points) and Strongly Disagree (1 point) for questions on reasons for non use of post abortion care services. Respondents were asked to tick the option that best suit them.

Validity of Instrument

The questionnaire was submitted to the researcher's supervisor, two lecturers in the Department of Nursing Sciences and clinical experts (a Gynecologist and a Midwife) for face and content validity. They were given a copy of the instrument to critically assess the accuracy of the instrument. Corrections were effected to modify the instrument before it was administered to the respondents.

Reliability of Instrument

In order to establish the reliability of the instrument, a pilot test was carried out. The questionnaire was administered to 35 women of reproductive age (15-49 years) in Obudu Local Government Area (representing 10% of the sample size). A split-half method was used to calculate the reliability. The data collected was analyzed using Spearman Brown

Co-efficient statistical test. The reliability of the instrument obtained was 0.74 (see Appendix 3). Hence, the questionnaire was found to be reliable.

Ethical Consideration

A letter of introduction was collected from the Head, Department of Nursing Sciences. Ethical approval to carry out the study was obtained from the Ethical Review Unit in the Ministry of Health Calabar, Cross River State. The procedure and benefits of the study were explained to the participants after which a written informed consent was obtained from each study participant at the beginning of the study after being informed of the objectives of the study. They were assured of strict confidentiality with regards to any information obtained from them. The respondents' rights were respected at all times to discontinue the study at any time.

Procedure for Data Collection

The ethical approval was used to obtain permission from the clan head and ward chiefs. The questionnaire was used as a guide to obtain information from the women who met the inclusion criteria. Four (4) research assistants were selected to assist in data collection. The research assistants (Nurse/midwife) were selected from health facilities located within the study site. They were informed of the purpose of the study and instructed on the data collection procedure and how to approach the respondents. The respondents were met at their homes, consent was obtained and copies of the questionnaires given to them to fill. Completed questionnaires were collected on the spot. The entire exercise lasted for a period of one month.

Method of Data Analysis

Item by item description of data was carried out to show responses of frequency and percentages using the computer software programme Statistical Package for the Social Sciences (SPSS version 21). Descriptive statistics in terms of mean and standard deviation were used to analyze questions on knowledge and use of post abortion care services. While one way analysis of variance (ANOVA) was used to test hypotheses. The level of significance was set at 0.05. A decision rule of 2.5 was used to reject or accept items on the likert scale.

CHAPTER FOUR

PRESENTATION OF RESULTS

This chapter presented the results and summary of the findings. The results are presented in a tabular form according to the research questions. Out of the 350 questionnaires distributed, 350 questionnaires were correctly filled and returned giving a returned rate of 100%.

Table 1: Demographic Characteristics of Respondents

(n – 350)			
	Characteristics	f	%
Age:	16i 20	2	0.6
	21i 25	34	9.7
	26i 30	61	17.4
	31i 35	58	16.6
	36i 40	50	14.2
	41 - 45	73	20.9
	46 -50	72	20.6
	Mean $\bar{X}$	37.6	
Marital Status:	Single	59	16.9
	Married	279	79.7
	Divorced	12	3.4
Religion:	Christianity	300	85.7
	Islam	16	4.6
	Traditional religion	34	9.7
Highest Educational Attainment:	No formal education	11	3.1
	Primary	49	14.0
	Junior secondary	77	22.0
	Senior secondary	119	34.0
	Tertiary	94	26.9
Occupation:	Subsistent farming	82	23.4
	Petty trading	129	36.9
	Professional	77	22.0
	Artisan	62	17.7
Number of deliveries:	None	12	3.4
	1 i 3	215	61.5
	4 i 6	96	27.4
	7 i 9	27	7.7
Number of miscarriages/abortion:	0	168	48
	1 i 2	159	45.4
	3 i 4	23	6.6

Table 1 showed that 2(0.6%) respondents were between 15 ÷ 20 years while 73(20.9%) were 41 ÷ 45 years. Information on marital status showed that 279(79.7%) women were married, 59(16.9%) were single and 12(3.4%) were divorced. On religion, majority of women 300 (85.7%) were Christian, 34(9.7%) traditionalist while 16(4.6%) were Muslim. With reference to the highest level of education, majority 119(34.0%) completed senior secondary education while 11(3.1%) had no formal education. With regards to occupation, majority 129(36.9%) were petty traders while 62(17.7%) were artisans. On number of deliveries, majority 215(61.5%) had 1 ÷ 3 deliveries and 12(3.4%) had no delivery. On number of miscarriages/abortion, 168(48%) had no miscarriage/abortion, 159(45.4%) had 1 ÷ 2 miscarriages/abortion and 23(6.6%) had 3 ÷ 4 miscarriages/abortion.

Research Question 1:

What do women understand as post abortion care?

Table 2: Women's Understanding of Post Abortion Care
(n = 350)

Women's Understanding	Yes F	%	No F	%
PAC is the care given to a woman following miscarriage/abortion.	253	72.3	97	27.7
PAC comprises of emergency treatment following an abortion	247	70.6	103	29.4
PAC services are offered only in a health facility.	225	64.3	125	35.7
PAC services can be provided by any trained person	243	69.4	107	30.6
Counseling is an important element of PAC	238	68.0	112	32.0
Family planning and contraceptives can be offered during PAC	248	70.9	102	29.1
Family planning can prevent death arising from unsafe abortion	264	75.4	86	24.6
Family planning can prevent an unplanned pregnancy	271	77.4	79	22.6
PAC is done within 12 weeks of spontaneous abortion	240	68.6	110	31.4
PAC with MVA can prevent complications associated with miscarriage/abortion.	253	72.3	97	27.7

Table 2 indicates that majority of the respondents 253 (72.3%) understood that post abortion care (PAC) is the care given to a woman following miscarriage/abortion. 247 (70.6%) understood that PAC comprises of emergency treatment following miscarriage/abortion, 264 (75.4) also understood that family planning can prevent death arising from unsafe abortion. While 271(77.4%) respondents understood that family planning can prevent unplanned pregnancy and 253 (72.3%) understood that PAC with MVA can prevent complications associated with an abortion.

Research Question 2:

To what extent do women of reproductive age who have had miscarriage/abortion use post abortion care services?

Table 3: Use of PAC Services

(n = 182)			
Use of PAC services		Frequency	%
Period (weeks)	0 ï 12 weeks	136	74.7
	13 ï 24 weeks	32	17.6
	25 ï 36 weeks	14	7.7
Place	At home	88	48.4
	Hospital	48	26.4
	Chemist shop	13	7.1
	Nursing home	33	18.1
Method used	Native herbs	10	5.5
	Oral herbs	15	8.2
	MVA/Dilatation and curettage	24	13.2
	Vaginal pessaries	13	7.1
	Injections	32	17.6
	None	88	48.4
Service Provider	Doctor	48	26.4
	Nurse	36	19.8
	Chemist man	10	5.5
	Native doctor	5	2.7
	TBA	23	12.6
	None	60	33.0
Current practice of family planning	Yes	60	33.0
	No	122	67.0

Table 3 showed that of the 182 (52%) respondents who had miscarriage/abortion, majority 136 (74.7%) had miscarriage/abortion between 0 ï 12 weeks, 32 (17.6%) had miscarriage/abortion within 13 ï 24 weeks and 14 (7.7%) between 25 ï 36 weeks. Considering the place where the miscarriage/abortion was terminated, majority 88(48.4%) was at home, 48(26.4%) was in the hospital while 13(17.1%) was in a chemist

shop. With regards to the method used, majority 88(48.4%) did not use any method, 32(17.6%) used injections, only 10 (5.5%) used native herbs. Based on the service provider that assisted them in carrying out the procedure, majority 60 (33.0%) had no service provider. 48(26.4%) were assisted by a doctor, 36(19.8%) were assisted by a nurse and 5 (2.7%) were assisted by a native doctor. In another dimension, majority 122(67.0%) agreed that they were not doing anything to delay pregnancy while 60 (33.0%) were currently doing something to delay pregnancy.

Table 4:

Extent of Use of Post Abortion Family Planning Methods

(n – 182)

Method	Never	Rarely	Sometimes	Regularly	$\bar{X}$	SD
Pills	102(56%)	20(11%)	2(1.1%)	58(31.9%)	.99	1.44
Injectable	116(63.7%)	28(15.4%)	4(2.2%)	34(18.7%)	.61	1.08
Natural method	96(52.7%)	50(27.5%)	20(11.0%)	16(8.8%)	.61	0.08
Vaginal pessaries	125(68.7%)	5(2.7%)	30(16.5%)	22(12.1%)	.50	0.89
Barrier method	87(47.8%)	37(20.3%)	28(15.4%)	30(16.5%)	.85	1.31
Implants	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)	-	-
Copper T380A	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)	-	-

Table 4 showed that 58(31.9%) respondent used pill regularly, 2(1.1%) sometimes, while majority 102(56%) had never used the pill. Also 34(18.7%) respondents used injectables regularly, 4(2.2%) sometimes, while majority 116(63.7%) had never used injectables. For the natural method, 16(8.8%) used this regularly, 20(11.0%) sometimes and majority 96(52.7%) had never used the natural method of family planning. For vaginal pessaries 22(12.1%) used regularly, 30(16.5%) sometimes and majority 125(68.7%) had never

used pessaries. Majority 87(47.8%) had never used the barrier method, 30(16.5%) had used it regularly and 37(20.3%) had used rarely.

Research Question 3:

What are the reasons for non-use of post abortion care services?

Table 5: Reasons for Non-use of PAC Services

Reasons	(n – 350)					S.D
	SA	A	D	SD	$\bar{X}$	
Health facility for PAC services is too far.	140(40.0)	97(27.7)	56(16.0)	57(16.3%)	2.59	1.30
Cost of obtaining PAC services	122(34.9)	111(31.7)	69(19.7)	48(13.7)	2.77	1.17
PAC services are not readily available	124(35.4)	111(31.7)	70(20)	45(12.9)	2.79	1.16
Fear of PAC services	161(46.0)	89(25.4)	48(13.7)	52(14.9)	2.89	1.21
Husband does not give needed support for PAC	129(36.9)	85(24.3)	71(20.3)	65(18.5)	2.76	1.20
I do not have sufficient money	120(34.3)	92(26.3)	71(20.3)	67(19.1)	2.72	1.19
PAC services providers are not always available	117(33.4)	76(21.7)	90(25.8)	67(19.1)	2.66	1.19
The health care provider's attitude makes me dislike PAC services.	100(28.6)	70(20.0)	109(31.1)	71(20.3)	2.54	2.41
My religion does not accept artificial family planning method	59(16.9)	60(17.1)	91(26.0)	140(40.0)	1.96	1.12
My culture forbids child spacing through artificial family planning	53(15.1)	56(16.0)	105(30.0)	136(38.9)	1.93	1.01

Table 5 reveals that out of the 10 reasons which the researcher hypothesized could likely be responsible for using PAC services, 8 of this were statistically significant and 2 reasons were not significant. From this table, respondents evidence showed that the health facility where PAC services were provided is too far from their homes (mean = 2.59, SD = 1.30), for the cost of obtaining PAC services ($\bar{X}$ = 2.77, SD = 1.7), data also

showed that PAC services were not readily available in the health facility ($\bar{X} = 2.79$, SD = 1.16), respondents who were afraid of PAC services such as family planning ($\bar{X} = 2.89$, SD = 1.21). For women whose husbands do not give needed support ($\bar{X} = 2.76$, SD = 1.20), I do not have sufficient money ($\bar{X} = 2.72$, SD = 1.19), PAC service providers are not always available in the health facility ($\bar{X} = 2.66$, SD = 1.19) and the attitude of the health care providers makes them dislike the services, ($\bar{X} = 2.54$, SD = 2.41). My religion does not accept artificial family planning method ($\bar{X} = 1.96$, SD = 1.12), while my culture forbids child spacing through artificial family planning ($\bar{X} = 1.93$, SD = 1.07).

Hypothesis One

There is no significant difference in women's knowledge of post abortion care based on their educational qualification.

Table 6: Mean and Standard Deviation of Respondent's Knowledge of Post Abortion Care Based on Educational Qualification
(n = 350)

Educational Qualification	N	Mean	SD
No formal education	11	1.45	2.66
Primary education	49	4.06	4.45
Junior secondary	77	6.94	4.04
Senior secondary	119	7.64	3.32
Tertiary	94	8.77	2.33

From the table above, women in the study group who had tertiary education had the highest mean knowledge of post abortion care ($\bar{X} = 8.77$, $SD = 2.33$), which was closely followed by those who completed senior secondary education ($\bar{X} = 7.64$, $SD = 3.32$). Those without formal education showed the least mean knowledge of post abortion care. From the table, it could be observed that the women's mean knowledge of post abortion care was closely and directly associated with their level of education, the higher the level of education, the higher the mean knowledge of post abortion care.

Table 7: Results of One Way ANOVA of the Influence of Educational Qualification on Women's Knowledge of Post Abortion Care

Source	SS	Df	ms	F	P-Value
Between groups	1100.542	4	275.136	23.319	.000
Within groups	4070.532	345	11.799		
Total	5171	.074	349		

*Significant, $P < .05$ Critical F = 2.37

From Table 7 above, the calculated F-value arising from the test of the hypothesis was 23.319, while the critical F-value was 2.37 ($\alpha = .05$)

Hypothesis Two

There is no significant difference in the women's use of post abortion care services based on their occupation.

Table 8: Mean and Standard Deviation of Women's Use of Post Abortion Care Services Based on their Occupation

(n = 350)			
Occupation	N	Mean	SD
Subsistent farming	86	26.84	9.24
Petty trading	125	26.31	7.86
Professional	77	24.25	8.57
Artisan	62	26.23	7.01

From Table 8, it could be seen that those respondents who are subsistent farmers showed the highest mean use of post abortion care services ($\bar{X} = 28.75$, $SD = 6.70$). This was closely followed by petty trading ($\bar{X} = 26.31$, $SD = 7.86$) and artisan ($\bar{X} = 26.23$, $SD = 7.01$).

Table 9: Results of One Way ANOVA of the Influence of Women's Occupation and Use of Post Abortion Care Services

Source	Ss	Df	ms	F	P-value
Between groups	1150.457	5	230.091	3.194*	.008
Within groups	24710.093	343	72.041		
Total	25860.550	348			

*Significant, $P < .05$, critical $F = 2.37$

From Table 9 above, the calculated f-value was 3.194 as against the critical f-value of 2.37 ($\alpha = .05$). Since the calculated f-value of 2.37 was greater than the critical f-value of 3.194. The null hypothesis was rejected. Thus, the test was significant and the null hypothesis was rejected. Therefore, the study concluded that there is a significant difference in the mean use of post abortion care services based on their occupations.

Summary of Findings

1. Majority 253(72.3%) of the respondents understood that PAC is the care given to a woman following miscarriage/abortion.
2. Majority 264(75.4%) also understood that the utilization of any family planning method of choice can prevent death arising from unsafe abortion.
3. Majority 136(74.7%) had miscarriage/abortion between 0 to 12 weeks.
4. Majority 88(48.4%) had the miscarriage/abortion at home and did not use any health facility, but 48(26.4%) used the hospital while 33(18.1%) respondents used nursing homes during pregnancy termination.
5. Majority 88(48.4%) did not use any method of family planning for terminating pregnancy, only few 32(17.6%) used injections and 24(13.2%) used MVA in terminating pregnancy.

6. Only 58(31.9%) use pill regularly to prevent pregnancy.
7. Reasons for non-use of PAC services by respondents were, distance to health facility, cost of obtaining PAC services, availability of PAC services, fear of PAC services, lack of husband's support and availability of PAC services provider.
8. There was a significant difference in women's understanding of post abortion care due to their educational qualification (F-value 23.319).
9. There was also a significant difference in the use of post abortion care services based on their occupation (F-value 3.194).

CHAPTER FIVE

DISCUSSION OF FINDINGS

This chapter presents discussion of major findings, implications for Nursing, limitations, summary, conclusion, recommendations and suggestion for further studies.

Discussion of Major Findings

Women's Understanding of Post Abortion Care

The findings of this study showed that majority 253(72.3) of women understood that PAC is the care given to a woman following miscarriage/abortion and they also understood that family planning prevents death arising from unsafe abortion. This agrees with the findings of USAID (2011) who observed that knowledge of PAC and family planning appeared to be very high among women of reproductive age in the four regions covered in their study. Tsegay (2011) also supports the findings, as his study revealed that the general knowledge of his study respondents on the basic comprehensive safe abortion care services and family planning of the region he studied was promising. The findings of this study further agrees with that of Adinma, et al (2010) whose study revealed that the overall awareness of PAC services was high (75.5%) .

Extent of Use of Post Abortion Care Services

Findings from the study revealed that majority of the women did not utilize any health care facility. Only few women used the hospital. Majority did not use any method of family planning, only few women used pill regularly. Melkemu et al, (2010) in their study disagreed with the findings of this study as their study revealed that majority of their respondents preferred public health facilities. The implication here is that PAC

services should be made available, accessible and at a cost that women can afford especially at the community level.

Similarly, Anari et al (2015) agrees with the findings of this study as their study showed that most facilities had adequate supply of the necessary equipment for post abortion care and family planning services. However, the capacity of the health care providers to deliver this service was limited resulting to non-use.

Reasons for Non-Use of Post Abortion Care Services

Findings of the study showed that the reasons for non-use of PAC services were, distance to health facility, cost of obtaining PAC services, availability of PAC services, fear of PAC services, lack of husbands support and availability of PAC services provider.

The findings of this study agrees with that of Awoyemi et al (2014), who found in their study that income was a significant determinant of abortion and post abortion care utilization. Omo-Aghoja et al (2009) also supported the findings of the study by identifying the following factors such as ineffective conveyance of relevant information to clients, low literacy levels, extremes of reproductive age and parity, fear of side effects and lack of spousal consent as responsible for the low level of utilization of PAC services. Mudokweny-Rawdon et al (2012) however, disagreed with the findings of this study, as their study revealed that a combination of sepsis, anaemia, advanced maternal age, high parity and socioeconomic status reflected by high unemployment seemed to have compromised the resilience of post abortion women who died.

Implication of the Findings

It was observed from the study that majority of reproductive age women who had miscarriage/abortion did not use any health facility or any method of family planning which could have resulted to complications associated with abortions such as sepsis. More so non- use of family planning could also result to unwanted pregnancy. The problem identified has implications for nursing practice. To this end there is need for nurses and midwives to create awareness on the existence of PAC services in health care facilities in the study area and strengthen the use of family planning services through workshops and conferences. Maintain adequate records of reproductive age women who utilize existing post abortion care services in the area of study as this will enable the care provider to assess the extent of utilization of these services so as to take necessary actions.

Nurses and Midwives should also make recommendations to government on the provision of equipment for existing health facilities in order to reduce the cost of PAC services thereby improving on the utilization of such services.

The study also showed that reasons such as distance to health facility, fear of PAC services, husbands support influenced the utilization of PAC services. This implies that Nurses and Midwives need to strengthen counseling services and educate women of reproductive age on the relevance of family planning towards the reduction of maternal mortality associated with unsafe abortion.

Limitations of the Study

The major constraint in this study was the few number of reproductive age women used as study respondents. The number was not large enough to enable a wide generalization of the study findings.

Another limitation was with interpretation and translation of the instrument to the language of the respondents by the research assistants. This may not have been adequate enough, thus affecting the reliability of the study findings.

Summary

This study assessed the knowledge and utilization of post abortion care services among women of reproductive age (15 to 49 years) in Obanliku Local Government Area of Cross River State. This study was designed to determine:

1. What women understood as post abortion care
2. The extent to which women used post abortion care services
3. Identify reasons for non-use of post abortion care services

Literature was reviewed under conceptual, theoretical and empirical review which was based on the objectives of the study.

The research design was a descriptive survey design and a structured questionnaire was used for data collection from a sample of 350 women of reproductive age. The respondents were selected from 10 communities. 35 respondents were selected from each of these 10 communities. Data obtained from the study was analyzed using the Statistical Package for Social Sciences (SPSS) version 21. Descriptive statistics in terms of mean and standard deviation were also used to analyze questions on understanding and use of

post abortion care services. One way Analysis of Variance (ANOVA) was used to test the hypotheses. Major findings of this study showed that majority of the respondents 253(72.3%) understood that PAC is the care given to a woman following miscarriage/abortion. Majority 264(75.4%) also understood that family planning utilization can prevent death arising from unsafe abortion, majority 88 (48.4%) of respondents who had miscarriage/ abortion had it at home and did not use any health facility for management. Majority 88(48.4%) did not use any method of family planning, only 58(31.9%) used pills regularly. Reasons for non-use of PAC services were, distance to the health facility, cost of obtaining post abortion care services, availability of post abortion care services, fear of PAC services, husbands support and availability of health care services provider. There was a significant difference ($f\text{-value} = 23.319$) in respondents' understanding of post abortion care due to their educational qualification and there was also a significant difference ($f\text{-value} = 3.194$) in the use of post abortion care services based on their occupation.

Conclusion

Based on the findings of this study the following conclusions were made:

Majority 253(72.3%) of women of reproductive age in Obanliku Local Government Area understood what post abortion care is.

Majority 88(48.4%) of women who had miscarriage/abortion had it at home and did not use any health facility for management.

Majority 88(48.4%) did not use any method of family planning to prevent unplanned pregnancy.

Only 58(31.9%) used pill regularly.

The following reasons influence the non-use of PAC services: Cost of obtaining PAC services, availability of PAC services, and fear of use of PAC services, husbands support and availability of health care service provider.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. Post abortion care should be made one key component based service delivery.
2. Regular training of community based health care providers who should be able to provide PAC services even at the primary health care level.
3. Efforts should be made by government to include abortion related issues including case identification and referrals as one of the agenda for Stalk holders meeting.
4. Intervention needs to be put in place by stalk holders to address issues like cost of PAC services and to build support at family and community level.

Suggestions for Further Studies

For further studies the following suggestions were made by the researcher:

1. Asimilar study should be carried out in other local government areas of Cross River State on the same issue.
2. Further studies should be conducted on the women's perception on the different methods of contraceptives as strategy for reduction of unplanned pregnancy.
3. A study should also be carried out to assess the knowledge and practice of PAC by health care providers in Cross River State.

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APPENDIX 1

QUESTIONNAIRE

KNOWLEDGE AND UTILIZATION OF POST ABORTION CARE SERVICES AMONG WOMEN OF REPRODUCTIVE AGE (15-49 YEARS) IN OBANLIKU LOCAL GOVERNMENT AREA OF CROSS RIVER STATE

Dear respondent,

I am Eyam, Mary E. of the Department of Nursing Sciences, Enugu Campus. I am conducting a study on knowledge and utilization of post abortion care and family planning services among women of reproductive age (15 - 49 years) in Obanliku Local Government Area of Cross River State. This questionnaire is designed to elicit responses from you.

This research work is purely an academic exercise and every piece of information supplied will be treated as confidential. Your name is not necessary.

Thanks for your expected co-operation.

SECTION A:

Demographic Data

Instructions: Please tick (✓) the option that best suits you

1. Community.....
2. Age last birthday? é é é é é é é é é é é é é é é é ..
3. Marital Status:(a) Single []
(b) Married []
(c) Divorced []
4. Religion:
(a) Christianity []
(b) Islam []
(c) Traditional Religion []
4. What is your highest level of education?
(a) No formal Education []
(b) Primary []
(c) Junior secondary []
(d) Senior secondary []
(e) Tertiary []
5. What occupation is the major source of your income?
(a) Subsistent farming []
(b) Petty trading []
(c) Professional []
(d) Artisan []
6. Number of Deliveries
(a) None [] (b) 1 ï 3 [] (c) 4 ï 6 [] (d) 7 ï 9 []
7. Number of miscarriages/abortion
(a) 0 [] (b) 1 ï 2 [] (c) 3 ï 4 []

SECTION B
Understanding of Post-abortion Care

Instructions: Please tick (✓) the appropriate option

S/N	What do women understand as post abortion care?	<u>Response</u>	
		Yes	No
9	Post abortion care is the care given to a woman following an abortion/ miscarriage		
10	Post abortion care comprises of emergency treatment following an abortion/ miscarriage		
11	Post abortion care services are offered only in a health facility		
12	Post abortion care services can be provided by any trained person		
13	Counseling is an important element of post abortion care		
14	Family planning and contraceptive services can be offered during post abortion care		
15	Family planning can prevent death associated with unsafe abortion		
16	Family planning can prevent an unplanned pregnancy		
17	Post abortion care is done within 12 weeks of spontaneous abortion		
18	Post abortion care with MVA can prevent complications associated with an abortion		
19	Have you had a miscarriage/abortion before? If No, stop at 19. If Yes, proceed to Section C.		

SECTION C
Utilization of Post abortion Care Services

Instructions: Please tick (✓) the appropriate option

20. If Yes, at what period of pregnancy?
- (a) 0 ÷ 12 weeks []
- (b) 13 ÷ 24 weeks []
- (c) 25 ÷ 36 weeks []
21. Where was the abortion performed?
- (a) At home []
- (b) Hospital []
- (c) Chemist shop []
- (d) Nursing home []

22. What method was used to procure the abortion ?
- (a) Native herbs []
 - (b) Oral herbs []
 - (c) Dilatation & Curettage/MVA []
 - (d) Vaginal pessaries []
 - (e) Injections []
23. Who was your service provider??
- (a) Doctor []
 - (b) Nurse []
 - (c) Chemist man []
 - (d) Native doctor []
 - (e) Traditional birth attendant []
 - (f) None []
24. Are you currently doing anything to delay or avoid pregnancy?
- (a) Yes [] (b) No []
25. If Yes, how often do you utilize the following methods of family planning?

Method	Never	Rarely	Sometimes	Regularly
Pills				
Inject able				
Natural method				
Vaginal pessaries				
Barrier method				

Stop here if you used post abortion care.

If you have ever lost a pregnancy and you did not use a post abortion care service, then go to Section D.

SECTION D

Reasons for Non-Use of Post abortion Care

Instructions: Please tick (✓) the most appropriate option

SA - **Strongly Agreed**
A - **Agreed**
D - **Disagreed**
SD - **Strongly Disagreed**

S/N	Reasons for Non-Use of Post abortion Care	SA	A	D	SD
26.	The health facility where post abortion care services are provided is too far from my home				
27.	The cost of obtaining PAC services in the health facility is what prevents me from going for this services				
28.	Post abortion care services are not readily available in the health facility				
29	I am afraid that some PAC services such as family planning injections can cause infertility				
30	My husband does not give me the needed support to seek PAC services such as counseling				
31	I do not have sufficient money to go forMVA following a spontaneous abortion				
32	PAC service providers are always not available in the health facility				
35	The health care providers attitude makes me to dislike the services				
36	My religion does not accept artificial family planning as a method of birth control				
37	My culture forbids child spacing through artificial family planning method				

APPENDIX 2

Sample size calculation using the sample size formula

$$N = \frac{N}{1 + (e)^2}$$

Where N = sample size

E = Level of error (0.05)

$$N = \frac{N}{1 + N \times (0.05)^2}$$

$$N = 0.0025 \times 2545 = (6.36250) + 1$$

$$N = 2545 / 7.3625$$

$$N = 345.67$$

$$= 346$$

APPENDIX 3

```
RELIABILITY
/VARIABLE=PART1 PART2
/SCALE ('SECTION B: KNOWLEDGE OF POST ABORTION CARE') ALL
/MODEL=SPLIT
/STATISTICS=SCALE. MARY
```

Reliability

[DataSet0]

Scale: KNOWLEDGE AND UTILIZATION OF POST ABORTION CARE SERVICES

Case Processing Summary

		N	%
Cases	Valid	35	100.0
	Excluded ^a	0	.0
	Total	35	100.0

- a. Listwise deletion based on all variables in the procedure

Reliability Statistics

Cronbach's Alpha	Part 1	Value	1.000
		N of Items	1 ^a
	Part 2	Value	1.000
		N of Items	1 ^b
Total		N of Items	2
Correlation Between Forms			.581
Spearman-Brown		Equal Length	.735
Coefficient		Unequal Length	.735
Guttman Split Half Coefficient			

- a. The items are: PART1
b. The items are: PART2