

A STUDY TO EXAMINE THE RELATIONSHIP BETWEEN KNOWLEDGE
LEVELS ON SELF-CARE PRACTICES AND OCCURANCE OF ABORTION
AMONG WOMEN OF CHILD BEARING AGE ADMITTED FOR POST
ARBOTAL CARE AT GWANDA GYNAECOLOGY WARD.

BY

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ABSTRACT

Abortion is a major public health obstetric problem across the globe. Worldwide, twenty million unsafe abortions occur each year. Eighty thousand women die each year because of complications following unsafe abortions [WHO 2006]. In Zimbabwe it is estimated that ten to fifteen thousand abortions occur annually. It is one of the leading causes of maternal morbidity and mortality. In 2008 abortion complications resulted in 35% of maternal death and were ranked ninth out of Zimbabwe's top ten diseases/conditions [MOHCW 2009].

The purpose of this study was to determine the relationship between knowledge levels on self-care practice and occurrence of abortion among women of childbearing age. The study utilized Orem's self-care model. The concepts used were self-care deficit, supportive educative and self-care. A descriptive correlational design was used. A non-probability sampling which is convenience sampling was employed in the study. The sample size was seventy eight subjects. The instrument used to measure the variable was a questionnaire. Descriptive statistics were used to describe, analyze and summarize data on knowledge levels on self-care practice and occurrence of abortion. Pearson's correlation coefficient was used to establish the relationship between knowledge levels on self-care practice and occurrence of abortion. A weak negative significant relationship was noted $r = -.265^*$, $p \leq 0.05$.

Midwifery practice should ensure that women should be empowered with knowledge on self-care practice to prevent occurrence of abortions. Empowering women addresses the millennium Development Goal 5 which targets to reduce maternal morbidity and mortality by $\frac{3}{4}$ by the year 2015.

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CHAPTER ONE

BACKGROUND AND ORGANIZING FRAMEWORK

Introduction

The chapter will cover background information, problem statement, purpose, theoretical framework, conceptual definitions, objectives, questions and significance of the study to nursing.

Background Information

Abortion is a major public health problem across the globe. By conservative estimates, worldwide twenty million unsafe abortions occur each year. Eighty thousand women die each year because of complications following unsafe abortion [Reproductive Health Guidelines 2001].

Abortion is termination of pregnancy before 22 weeks gestation or less than 500g fetal weight [Fraiser and Cooper 2005]. Abortion may be spontaneous or induced. Spontaneous abortion occurs with no known cause and is usually referred to as a miscarriage. Induced abortion may also be criminal abortion whereby an individual attempts to get rid of the pregnancy and is usually done under unsafe conditions. In Zimbabwe induced abortion is against the law except where pregnancy results from rape or incest, where there is substantial threat to the woman's life or health in continuing of pregnancy and where it is known that the fetus has a serious medical condition or malformation for example down syndrome [Termination of Pregnancy Act, 1967].

Spontaneous abortion may be due to any debilitating illness for example malaria, HIV related infection, and chromosomal defects, syphilis, brucella and

malnutrition [Fraiser and Cooper 2003]. Some of the causes of spontaneous abortion are excessive work during pregnancy, drugs, incompetent cervix and stress. In some parts of Africa, abortion may be due to certain practices for example use of herbs, which might have negative impact on the pregnancy [Macloskey et al 2006]. Induced abortion may be criminal termination of an unwanted pregnancy which is usually done either by persons lacking the necessary skill or in an environment lacking the minimal standards or both, [WHO 2007].

Induced abortion may be due to unwanted pregnancy, mistimed pregnancy, financial issues, age [too young or too old], problems with relationship, and education. [Ribera et al 2009] Abortions usually pose many problems to the women. These are severe bleeding, shock, infections, uterine and abdominal [bladder or bowel perforations], laceration of the cervix and vagina and retro-vaginal and vesico-vaginal fistulae, infertility, and air embolus. [Fraiser and Cooper 2003] In Zimbabwe, it is difficult to establish whether abortion is induced for the fear of being apprehended the little evidence that is available suggest that induced abortion is common. Much of this evidence is based on women hospitalised for treatment of abortion complications, [Muti 2005].

Problem statement

There is an increase in abortion experienced at Gwanda Provincial Hospital, as evidenced by the statistics for the year 2005 to 2009. In 2005, 210 women were admitted in the Gynaecology ward and out of those 154 were abortion cases totalling to 73, 3%. In 2006, 205 women were admitted, 172 admitted with abortion [83, 9%]. In 2007, the trend remained that abortion cases remained high [200 admitted, 168

abortions, 84%]. In the year 2008 a low number was recorded [100 admissions, 81 abortions, 81%]. This could be due to health industrial action, which took place. Most people could not access health care because of these strikes. In 2009 203 gynaecology patients were admitted, out of those 183 had abortions [90, 1%].

The problem of abortion is not a one-area problem. In Zimbabwe, it is estimated that ten to fifteen thousand abortions occur annually as one of the leading causes of maternal morbidity and mortality [MOHCW 2009]. In 2008, abortion complications resulted in 35% of maternal deaths in Zimbabwe [MOHCW 2009]. Hospital based studies suggest that as much as 28% of maternal deaths in Zimbabwe are due to unsafe abortion, and this is an underestimation of the problem because the figures represent only those who have had contact with the health delivery system [MOHCW 2006]. Some women may have backdoor abortions, which go unnoticed.

As already mentioned above, abortion is against the law in Zimbabwe, most people have the idea that a woman voluntarily chooses to end a pregnancy makes many people uncomfortable and provokes outright hostility in some parts of Africa. At the same time health and human rights advocates argue that law criminalising abortion not only ignore the sometimes dire consequences of unwanted pregnancies but display a profound disregard for women's ability to make autonomous and moral decisions, [Winfrey and Ross 2008].

In 2008, abortion was ranked ninth out of Zimbabwe's top ten diseases/conditions [MOCHW 2008]. Maternal morbidity and mortality related complications of unsafe abortion have been identified as major public health problems. Whether and in what circumstances abortion should be legal is highly debated in many

parts of the world, with arguments on religion, moral, political, human rights and public health grounds. For the year 2009, Zimbabwe recorded 11903 abortions.

Abortion is legally restricted in most African countries and in Nigeria; it is permitted only to save the life of a pregnant woman. A study was conducted and discovered that 27% of physicians in private practice perform abortions despite the legal restrictions [International Family Perspectives Volume 34 December 2008].

In Uganda, unsafe abortion is a leading cause of reproductive morbidity and mortality. Abortion is against the law; as a result, there is limited information on back door abortions [Juarez et al 2007].

Worldwide, twenty million unsafe abortions occur each year. Eighty thousand women die each year because of complications following unsafe abortion [WHO 2006]. Globally, seventy five million pregnancies each year are unwanted. None use of contraception accounts for the majority of unwanted pregnancies, which may lead to unsafe abortion [Muti 2005].

Abortions usually present with vaginal bleeding, cramping lower abdominal pains, which usually progress to expulsion of the products of conception. For criminal induced abortion, there is severe bleeding, sepsis, shock. There might be abdominal perforations, lacerations of the cervix and vagina. These complications usually are the causes of mortality due to abortions.

Although having a child is viewed as a blessing to many couples, pregnancy is not always welcomed or planned. Unfortunately, however, some women conceive when they do not wish to causing a lot of stress. Some women miscarry when in fact they were looking forward to have a baby. This actually poses a lot of problems to the

woman. Some women may have strained relationships following abortion. Some may be termed witches. [Chamisa 2004]. The in laws will be looking forward to having a grandchild causing a lot of stress to the woman. Abortion whether wanted or unwanted is a stressor to the well-being of many women. [Chamisa 2004]

In Zimbabwe, post abortal care services are rendered, including both medical and preventive health care. The key elements of post abortal care involve emergency treatment services for the complications of spontaneous or unsafe abortion, post abortion family planning counselling and services and linkages between emergency post -abortion treatment services and the reproductive health care system, [MOHCW 2006]. Following post abortal care most women become knowledgeable on family planning and become aware of some self-care practices which might cause abortions. Prevention of abortion is not only an advantage to the women but also to the community and country experiencing low morbidity and mortality rates.

Abortions are not only a significant cause of morbidity among women but also an economic drain on the health care system. Providing post abortal care to those women involves huge cost and thus diminishes the health care system's capacity to provide other needed services. [MOHCW 2006]. About 82.6% of abortions are experienced at Gwanda Provincial Hospital[Gwanda Quartely Report 2008]; it was paramount for this investigator to consider researching on women following abortion. It is surprising that there is an increase in the number of admitted cases of abortions at Gwanda despite the excess facilities of family planning services.

Purpose of the study

The study sought to examine the relationship between knowledge on self-care practice and occurrence of abortion among women of childbearing age admitted for post-abortal care at Gwanda Gynaecology ward.

Theoretical Framework.

The organizing framework to guide this study was Orem's General Theory of Nursing of 1990. The models describe and explain self-care. The theory consists of three related theories, which are self-care theory, self-care deficit theory and nursing systems theory. The model is based on the concepts of self-care agency, self-care requisites and therapeutic self-care demand.

Self-care comprises those activities performed independently by an individual to promote and maintain personal well-being throughout life. Self-care agency is the individual's ability to perform self-care activities. It consists of two agents that is self-care agent [person other than the individual who provides the care, such as a parent who cares for a child. Self-care requisites are the actions or measures used to provide self-care also called self-care needs]. Therapeutic self-care demand, which refers to those self-care activities, required to meet the self-care requisites. It involves the use of actions to maintain health and well-being. Each patient's therapeutic self-care demand varies throughout life. Therapeutic self-care demand can produce a self-care deficit when it exceeds the patient's self-care agency.

Self-care Deficit

Self-care deficit theory is the central focus of Orem's General Theory of Nursing. It explains when nursing is needed. Self-care arises when the self-care agency cannot meet self-care requisites.

Nursing Systems

This theory refers to the series of actions a nurse takes to meet a patient's self-care requisites. It is composed of three systems, which are wholly compensatory, partly compensatory, and supportive-educative. Each system describes nursing responsibilities, roles of the nurse and patient, rationales for the nurse-patient relationship and types of actions needed to meet the patient's self-care agency and therapeutic self-care demand.

A wholly compensatory nursing system is used when a patient depends on others for well-being. A partly nursing system is used when a patient can meet some self-care requisites but needs a nurse to help meet others, the nurse and the patient play major roles in performing self-care. A supportive-educative nursing system is used when a patient can meet self-care requisites but needs assistance with decision making, behaviour control or knowledge acquisition skills. In this system, the nurse attempts to promote the self-care agency.

Orem's theory was considered in this study because Orem identified five methods of helping and these are acting for or doing for another, guiding another, supporting another[physically or psychologically], providing an environment that promotes personal development in relation to becoming able to meet present or future demands for action and teaching another person which is nursing's core business.

In this study, three concepts of Orem's theory were used to guide the study. These are self-care deficit, which in this study was the occurrence of abortion, supportive-educative, which in this study corresponded to education given to promote self-care and the third one is self-care, which in this case corresponded to reduced occurrence of abortions/ no abortions. [See figure 1 on the following page].

Theoretical Framework

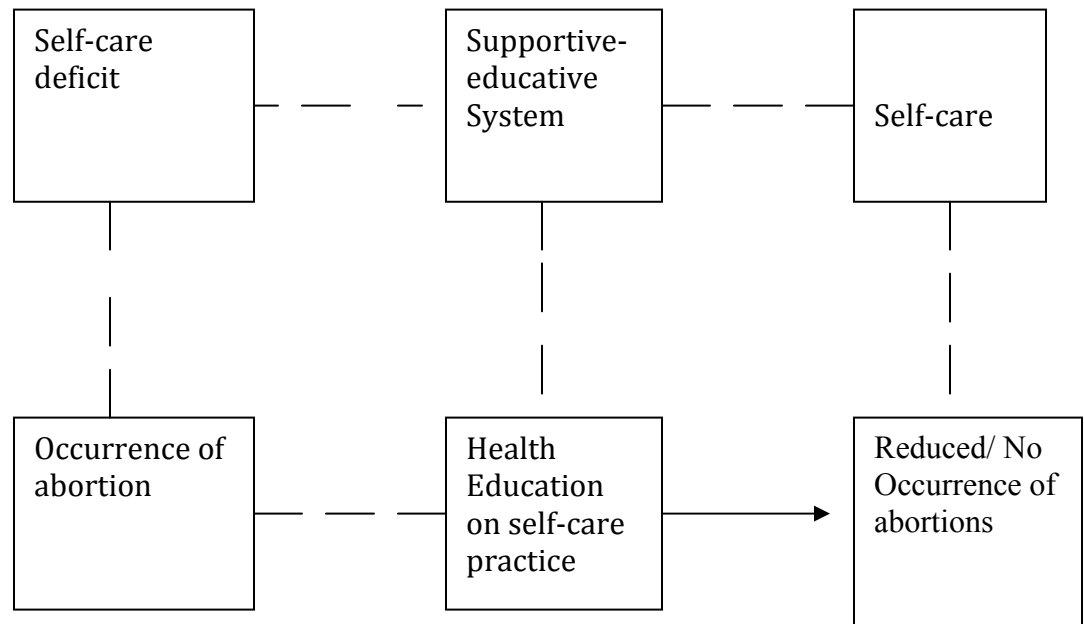


Figure 1: Orem's self-care model modified [1991]

Conceptual and operational definitions

Abortion

Abortion is death or expulsion of the fetus spontaneously or by induction before the twenty fourth weeks of pregnancy, the fetus should be less than 500weight.[Fraiser & Cooper 2003].

WHO [2006] defined abortion as expulsion of the products of conception before the twenty fourth week of pregnancy.

Abortion is the loss of pregnancy before the fetus is capable of living outside the uterus [approximately 20 weeks of gestation or 500g]. [Murray & McKinney 2006]. In this study abortion will be considered as an expulsion of the fetus before the twenty fourth week of pregnancy

Occurrence of abortion

It is the frequency in termination of pregnancy before the fetus is viable, that is before 24 weeks gestation [Fraiser & Cooper 2003]

Self-care practice

Self-care practice is defined as the practice of those activities that maintain life, health and well-being [Caetano et al 2006]

Unsafe abortion

WHO [2006] defined unsafe abortion as a procedure to terminate an unintended pregnancy that is performed by an individual who lacks adequate skills or that occurs in condition that do not meet basic medical standards.

Childbearing Age

Childbearing refers to age group between fifteen to forty nine years [Fraiser& Cooper 2003]

Preterm delivery

Preterm delivery is any delivery, which occurs any time before the 37 weeks of pregnancy [Moore & Puersad 1993].

Preterm baby

Preterm baby is any neonate regardless of birth weight, born prior to 37 weeks of gestation. [Moore & Puersad 1993]

Post-abortion care

It is the care given to a woman experiencing spontaneous, self induced or medical termination of pregnancy with the aim of minimizing or preventing the undesirable outcome of abortion [National Guidelines for Post Abortion Care in Zimbabwe 2001].

Research Objectives

1. Determine the occurrence of abortion among women of childbearing age admitted for post-abortion care at Gwanda Gynaecology ward.
2. Determine the knowledge level on self-care practice of women of childbearing age admitted for post-abortion care at Gwanda Gynaecology Ward.
3. Examine the relationship between knowledge levels on self-care practices and occurrence of abortion among women of childbearing age admitted for post-abortion care at Gwanda Gynaecology ward.

Research Questions

1. What is the occurrence of abortion among women of childbearing age admitted for post-abortal care at Gwanda Gynaecology ward?
2. What knowledge level on self-care practice may lead to occurrence of abortion among women of childbearing age admitted for post-abortal care at Gwanda Gynaecology ward?
3. What is the relationship between knowledge levels on self-care self practice and occurrence of abortions among women of childbearing age admitted for post-abortal care at Gwanda Gynaecology ward?

Significance of the study.

The role of nursing is to improve the quality of life of clients, well, sick, or dying. [Henderson 2005] The findings of the study will help improve the quality of education given to clients following abortions, thus self-care practices will be promoted. Findings from the study would also help add to the existing body of knowledge in view of health promotion to prevent self-induced abortions and discourage some self-care practices that promote abortions. Self-care knowledge provides awareness in the individual to care for self. Knowledge empowers the client to make her own decision and participate in own care. Therefore, knowledge on positive self-care practices may reduce incidence of abortions.

CHAPTER TWO

LITERATURE REVIEW

Introduction

Polit and Beck [2006] state that, literature review is a review of those activities in which the investigator become involved in the topic, thus developing a comprehensive picture of what is presently known on that topic. This chapter gives a review of literature related to the study. Review of literature helps the researcher gain essential information from existing studies and thesis, [Burns & Grove 2005]. A review of literature is essential in discovering what is essential in discovering what is already known about being studied. [Polit & Hungler 1999].

Occurrence of abortion

Abortion is a major public health problem across the globe, [Reproductive Health Guidelines 2001]. The Ministry of Health and Child welfare estimates that there are ten to fifteen thousand abortion annually and maternal morbidity and mortality related complications of unsafe abortion have been identified as major public problems. [MOHCW 2008].

Abortion may be spontaneous or induced. Induced abortion can be legal termination of pregnancy for therapeutic purposes or may also be criminal abortion [Fraiser & Cooper 2003]. In Zimbabwe termination of pregnancy is permitted within legally defined conditions. The legal condition for termination up to 28 weeks is justified where pregnancy results from rape or incest, or where there is substantial threat to the woman's life, health in the continuing pregnancy, to preserve physical health and where it is known that the fetus has serious medical condition or

malformation [Termination of Pregnancy Act, 1991] However behind doors abortion occur and health providers only know about them when the women come to seek health services at health institutions [Reproductive Health Guidelines 2001].

Whether and in what circumstances abortion should be legal is highly debated in many parts of the world, with arguments based on religion, moral, political, human rights and public health grounds. With the best available information individual countries and the international community can engage in a balanced discussion of how to both reduce the level of unintended pregnancy that lead to abortion and deal with the sometimes-deadly consequences of unsafe abortion for women in many parts of the world's poorest countries [Zimbabwe National Family Planning Council 2006]

Abortion is an issue, subject to conflicting ethical views, sensitive to varying interpretations and related to a large number of important and often-divisive public concerns [The Allan Guttmacher Institute 2004]. In recent years, abortion policies have been applied to control population growth in China and to halt population decline in Romania [Juarez et al 2007]

In a study conducted in India, a cultural preference for sons was found to be a factor driving to recourse to abortion as women carrying female fetuses might decide to terminate their pregnancies. [Juarez et al 2007]. Nearly 90% of abortions in India are performed under potentially unsafe conditions in unapproved facilities. Women are using these providers because there is shortage of medical provision in most rural areas and because many women are unable to travel to the safe facilities that do exist [Juarez 2007] In Philippines, abortion is legally restricted, never the less many women obtain abortions often in unsafe conditions. Some of the reasons why women would

have abortions were early marriage at an early age. Some women viewed frequent childbirth as shameful and use abortion as a method of spacing [International Family Perspectives Volume 32 September 2006].

In Uganda, unsafe abortion is a leading cause of reproductive morbidity and mortality. Abortion is against the law. One study on abortion, patients treated in six hospitals from June to December 2004 found that about 50% were likely to have induced abortions. In the same study, 76% of the abortion patients had a previous abortion [Mohamed & Msjostrand 2005].

Abortion is legally restricted in most African countries and in Nigeria; it is permitted only to save the life of a pregnant woman. A study was conducted and discovered that 27% of physicians in private practice perform abortions despite the legal restrictions. Some evidence suggests that abortions may be safer in Nigeria if legalised. [Becker 2004].

In researches conducted from other countries a number of reasons were cited as determinants of abortion including low education, young age of below 18 years and cohabiting [Riobera et al 2005]. In another study conducted in Mexico in 2009, determinants of abortion were reported as mistimed pregnancy, unwanted and whether they had three children or more at the time of abortion [Sousa et al 2009].

Despite abortion's illegality in Cote d'Ivoire, women nonetheless resort to it frequently to resolve unwanted pregnancies. 34% of all women surveyed had an induced abortion. Reliance on abortion varied significantly by women's social and demographic characteristic for example the proportion who had had an abortion rose with education [from 18% of uneducated women to 36% of women who had gone to

primary school and 51% had attended secondary level], 19% of women who had had an abortion cited their desire to pursue their education as the reason for doing so. [Guillaume & Desgrees du Luo 2007]. Other studies conducted in Sub-Saharan Africa have similarly found that young women consider pregnancy and child-rearing expenses to be incompatible with schooling.

Some of the reasons Ivorian women gave for why they resort to abortion were that they feared their parent's reaction [19%], that they had economic problems 15%, that their partner demanded they do so [12%], that they wanted to space births or limit them altogether [12%], that they were unmarried [11%] and that their partner said he would not recognize a child [10%]. The abortion rate was higher among unmarried than married women were [42% versus 30%, because pregnancy and childbearing outside marriage is socially unacceptable in Ivorian society [Guillaume & Desgrees du Lou 2002].

In Zimbabwe though not much research was done on abortion, a few studies conducted have shown that despite the law's severity abortion appears to be widely practiced. Evidence from the mid 1990s indicates that women of all social classes and backgrounds are having induced abortions. They do so under varying circumstances ranging from safe medical procedure performed for better off women by trained personnel to procedures in extremely unsafe conditions for poor women who cannot afford to pay for a surgical abortion [Muti 2005].

In a study conducted at Harare and Chitungwiza hospitals, it was difficult to establish the true proportion of abortions that had been induced. For fear of being apprehended, patients do not admit having induced their abortions. Those who were

interviewed cited the following as reasons for their abortions, family size, financial inadequacy, age [too young to have a baby], pursuing with education, personal reasons for not wanting a child, physical reasons, problems with relationships and medical reasons, [Mohamed & Msjostrand 2005]. In reviewed studies; there is some evidence that women of all social classes and backgrounds are having abortions. It has been argued that by legalising abortion, most of the complications due to illegal abortion can be reduced.

Knowledge level on Self-care Practice

Self-responsibility and self-care are major themes in current health care policy [Pender 1987]. Self-care thus becomes the predominant form of health care for clients with conditions like abortions. Self-care practices are actions or activities an individual perform unaided in order to maintain a healthy life. The way one performs self-care practices is based on one's culture and beliefs [Orem 1991]. Self-care practices are patterned and sequential actions which when effectively performed contribute in specific ways to human structural integrity, human function and human development [Orem, 1985]. Self-care is often of greater importance than professional health services and has been found to be an important determinant of health outcome [Dean, 1986].

Recognising needs for change and becoming knowledgeable and skilful about new self-care requisites are important ingredients for maintaining the adequacy of the individual's self-care practices, [Orem, 1985]. Therefore for clients to understand and take part in their self-care, communication is crucial between the health professional

and the client. In this study the following self-care practice will be discussed, sexual practice, exercises, work and rest, smoking, alcohol and use of drugs.

a) Sexual practice

Use of Contraception

Family planning programs help millions of people, providing reproductive health care that saves lives, avoid unintended pregnancies and offers more choices. Use of contraceptives benefits individual and countries in many ways. Simply providing contraception to women who desire it could reduce maternal deaths by as much as one-third [CDC 2000]. Family planning allows women to avoid becoming pregnant at the ages that pose the greatest risk to their health and the health of their children. One of the fundamental goals for family is to make every child a wanted child. Some unwanted pregnancies are aborted [CDC 2000]. Although not conclusively documented; many maternal deaths related to pregnancy are associated with incomplete abortions. [CDC 2002].

Zimbabwe is widely recognized as of the strongest family planning programs in Sub-Saharan Africa. Nonetheless, several factors disturb the use of family planning [MOHCW 2005]. Though the use of family planning methods has become popular, many women do not want to be pregnant but are not using contraceptives, or are using methods with relatively high failure rates [The Allan Guttmacher Institute 1999].

The decision to use permanent contraception requires a woman to be certain that she will not want any more children. In addition, reversible methods all have certain drawbacks for instance, some fear having an IUD inserted. Many women find it

difficult to remember to take the pill everyday year after year [Outlook Volume 13 Number 2 June 2007].

The reasons why sexually active women stop contraception, is that some women have broken up with their sexual partners and believes that they will no longer need a contraceptive but find themselves sexually active anyway. Others dislike the physical exam required for the pill or dislike the side effects of the pill and some are deterred by what inconvenience or difficulty there is in getting contraceptives [Smith 2003]. So it is hoped that if clients gain knowledge on self-care practice they will practice what is known and prevent abortions.

Many single women do not like to think of themselves as sexually active, using contraceptive conflicts with their preferred self-image. In another study, one unmarried woman did not like to use contraception because it made her gain weight. Upon becoming pregnant, this woman had an abortion [Luker 2005]. In a number of countries; condom use is associated with sex with prostitutes or with disease prevention rather than contraception. In addition, many men say it diminishes their sexual pleasure [Smith 2003]. In a study conducted in Zimbabwe, female condom was found to be more consistent with the idea that the female condom is particularly attractive to persons who are monogamous, regardless of whether they believe their partner is faithful, [Meekers & Kerry 2005].

In Sub-Saharan Africa, men are the soul decision makers in a family or in a relationship so at times, it becomes difficult for a woman to practice positive self-care practices. In fact they are told what to do and what not to do. [Chamisa 2004].

In Zimbabwe, some doctors or family planning clinics refuse to provide contraceptives to unmarried women or teenagers, or require that young people obtain a parent's permission. In other countries, male or mothers in-law with a great deal in the extended family discourage or forbid women from obtaining and using birth control methods. Some women's failure or inability to practice birth control is a function of perceptions related to their age or health. Therefore, knowledge is an empowerment tool to an informed decision making, [Zimbabwe Service Availability Survey 2004].

Some older women might think that they do not need to use a contraceptive method; others might believe that they are no longer capable of becoming pregnant. [Zimbabwe Service Availability Survey 2004] In some settings, women would like to achieve control over their childbearing do not have access to contraceptive supplies or family planning service they need because contraceptives are too expensive, supplies are erratic or services are difficult to get to [MOHCW 2004].

b) Exercise, Work and Rest

Exercises are important during pregnancy. Moderate exercises during pregnancy has many advantages including improved cardio-vascular fitness, limited weight gain, an improved attitude and mental state, an easier and less complicated birth and speedy postnatal recovery [Fraiser & Cooper 2005]. Myles [2000] also maintains that there are fetal benefits from maternal exercises in pregnancy including decreased growth of the fat organ, improved stress tolerance and advanced neuro-behavioural maturation. Though exercises are recommended, with African set up, exercises are over done [International Family Planning Perspective 2005]

c) Smoking

Smoking have been found to increase the risk of miscarriage, cigarettes contain nicotine, which causes vasoconstriction of placental vessels leading to placental insufficiency causing abortions or intra-uterine growth retardation,[Fraiser & Cooper]. Smoking produces carbon monoxide, which competes with oxygen for haemoglobin leading to inadequate supply of oxygen to the fetus. This factor predisposes to abortion [Moore & Puersad 1993].

In women who smoke twenty cigarettes per day, abortion rate is 5 times greater than non-smokers. [Fraiser & Cooper 2003]. In America the risk of spontaneous abortion for heavy smokers are estimated to be as much as seven times than non-smokers. [Kline et al 2007]. In a study conducted in Mexico, log-linear analysis was used to test the hypothesis that smoking is associated with spontaneous abortion. Women who had spontaneous abortion had reported smoking during pregnancy. [Kline et al 2007].

Himerlberger et al 2010], revealed that few studies have examined smoking prior to pregnancy and occurrence of spontaneous abortion, as most studies have addressed the risk of spontaneous abortion in relation to smoking during pregnancy. However, results are not entirely consistent. The adjusted odds ratio 95% confidence interval for spontaneous abortion among current smokers to prior conception was 1:20 per every extra five cigarettes per day. Although cigarette smoking is often considered a risk for spontaneous abortion, the epidemiologic literature is actually inconsistent. Therefore the authors examined maternal and paternal smoking exposure using data from a large case control study of spontaneous abortion in California. No excess risk

of spontaneous abortion was seen in 1% of women who smoked an average of more than twenty cigarettes per day in the first trimester. Moderate smokers had a slightly elevated crude odds ratio of 1.3 [95% confidence interval]. Paternal smoking showed a slight crude elevation for moderate and heavy smokers, but no association after adjustment. [Windham et al 2008]. In contrast, maternal exposure to environmental tobacco smoke for one hour or more per day was associated with spontaneous abortion. For both maternal direct and environmental exposure, the association appeared to be stronger in second-trimester abortions. Several studies have placental insufficiency and fetal hypoxia. [Shanna et al 2008].

In a study conducted by Kirsten et al [2007], results revealed that 104 [1.3%] of those contributing time at risk in the first trimester experienced spontaneous abortion in the 1st trimester and 217 [0.9%] of those contributing time at risk in the 2nd trimester experienced a second trimester abortion. There was no association between smoking and first and second abortions. The study did not support findings from previous studies of an association between smoking and spontaneous abortion. [Kirstein et al 2007].

Women who aborted spontaneously were almost twice as likely to smoke as were controls which carried a pregnancy to viability. The association was less definite in women who had two or more spontaneous abortions, [Kullander et al 2009]. Kullander and Kullen [2009] found that it was reduced to borderline significance when they took account of whether the pregnancy may be more likely to smoke than those who are content to be pregnant.

d) Alcohol

Alcohol abuse is less common but can affect the baby or predispose to abortion. There is no conclusive evidence of adverse effects on the fetus at a consumption level below two units per week; however, it is recommended that women do not exceed one to two units once or twice a week [Myles 2000].

In a study conducted in Austria though abortion is legal, spontaneous abortion is more than induced abortion. [Tetteh & Billings 2002] The odds of abortion among women who had more than a secondary education were significantly higher than those among women with no education. The odds of abortion were higher among women with a medium standard of living than among with a low standard of living. Smoking and drug abuse were associated with spontaneous abortion. [Tetteh & Billings 2002]

The chance of alcohol consumption aborting a pregnancy is slim to none, [Parazzini et al 2009]. However drinking large amount on alcohol throughout the pregnancy will have some seriously negative side effects on the fetus. In a study conducted in Italy, no association emerged between the duration of alcohol drinking and the risk of spontaneous abortion. However maternal wine and beer drinking in the first trimester of pregnancy was not associated with the risk of spontaneous abortion. Evidence available from this and previous studies although partially controversial, indicates that moderate [one to two drinks per day] alcohol consumption does not increase markedly the risk of miscarriage [Parazzini et al 2009]. Alcohol administered in high doses around the time of conception or during early pregnancy increases the frequency of embryonal resorption, chromosomal abnormalities in the off spring and fetal death [Luchini&Vecchia 2009].

e) Drugs

Some drugs have teratogenic effects to the fetus, so it is paramount for pregnant women to have safe practices, they should not buy over the counter drugs. Once a woman is suspecting that she is pregnant should also advise the health workers that they are pregnant to prevent the negative risks of drug teratogenicity [Munjanja 2006] sited that in Binga spontaneous abortions occur probably due to malaria parasite infestation or these buy drugs over the counter to treat malaria.

Relation between Self-care practice and Occurrence of abortion

In reviewed studies, there is some evidence that abortion can be spontaneous or induced, that all social classes and backgrounds are having abortions [Juarez et al 2007] .The relationship between some of the self-care practices, and abortion has been identified in the literature. In this study the self-care practice described are sexual practices which include contraception and condom use. Exercises, work and rest were described. In addition, use of drugs, smoking and drinking alcohol were also looked into.

The relationship between levels of contraception use and occurrence of abortion continue to provide heated discussion, with some observers arguing that use of abortion decrease as contraceptive prevalence rises and others claiming that increased use of family planning methods causes abortion incidences to rise. Some authors insist that abortion and contraception are two very different acts [Smith 2003]

The results of a study by Marston and Cleland[2003] shows that there is a relationship between contraception use and abortion as contraception failure leads to many abortion by those who have sex outside marriage. Even those who contracept are

more likely to abort than those who do not. Those using contraception, who get pregnant unexpectedly are generally very angry since they did everything they could to prevent a pregnancy [Smith 2003]. In an intervention study linking post abortion care to contraception from 2005 to 2006, the study found that women who received post-abortion family planning services reported greater use of contraception. There was a reported reduction in unplanned pregnancies, repeated abortions and contraceptive failures over the twelve months follow up period compared to women who did not receive post-abortion care [MOHCW 2007].

In studies conducted in Mexico, there was a relationship between smoking and spontaneous abortion [Kline et al 2007]. Few studies were conducted on the relationship between occurrence of abortion, exercises, work, and rest; hence the investigator wants to fill the gap.

Theoretical Framework

The self-care framework focuses on the person's ability to perform self-care and self-care is defined as the behaviour that exists in concrete life situations directed by persons to self or to the environment to regulate factors that affect their own development and functioning in the interests of life, health or well-being [Orem, 1985].

The self-care deficit is associated with abortion in this study. Self-care occurs when individuals engage in action to care for themselves by influencing internal and external factors to regulate their own internal functioning and development. Supportive-educative is used when a patient can meet self-care requisites but needs assistance with decision- making control or knowledge acquisition skills. In this

system, the nurse attempts to promote the self-care agency. In this study, supportive-educative is the health education given to promote self-care. Self-care is the outcome, which is reduced abortion.

Orem's self-care framework has also been used by Conn [1991] to develop an instrument. Saderham (1998) used the model in a phenomenological study to identify the self-care ability in a group of elderly Swedish people and concluded that the self-care ability is goal oriented involves perceptions, motives and a means for problem solving. The self-care framework has also been used in designing nursing care for clients of various ages and with a variety of self-care requisites (Fawcett, 1995). A study by Mapanga and Andrews (1995) also used Orem's self-care model, though their emphasis was mainly on basic conditioning factors, they also used other concepts for their study. The study was on influence of family and friends' basic conditioning factors and self-care agency on unmarried teenage, primiparas's engagement in contraceptive practice. Another study by Moore and Pichler (2000) reviewed published research on measurement of Orem's basic conditioning factors. They found that Orem's self-care deficit theory of nursing provides a valuable approach for examining disease prevention and health promotion, by health care recipients and health care providers.

Nkhoma [2002] studied the relationship between self-care practices and maladaptive behaviours among the moderately mentally handicapped clients and established that increased self-practices reduce the frequency of maladaptive behaviours amongst the moderately mentally handicapped clients. Orem's self-care model was successfully used.

From the literature reviewed, Orem's self-care model was successfully used on clients with chronic illnesses. However, there is limited literature on the use of Orem's self-care model on women with abortions.

Summary

Literature review showed that there was a high prevalence of abortion among women of childbearing age. Abortions have serious consequences to the women. Literature review revealed that in most African countries it is difficult to tell whether abortion was induced for the fear of consequences of the law as induced abortion is against the law. Most of the abortions end up being done behind doors, these women only report to hospital for treatment of complications of abortion.

CHAPTER 3

Methodology

Introduction

This chapter presents the methodology that gives the study its scientific merit, which according to Polit and Hungler, (1995) is the degree to which a study possesses theoretical relevance and internal and external validity.

In this section the research design, sampling plan, and sampling size, sampling procedure, research instrument, reliability and validity of the instrument, inclusion and exclusion criteria and human rights considerations were described.

Research Design

A research design is a researcher's overall plan for obtaining answers to the research questions or for testing the research hypothesis, (Polit & Hungler 1995). Burns and Grove [2005] define the research design as a blue print for conducting a study that maximizes control over factors that could interfere with validity of the findings; it guides the researcher in planning and implementing the study in a way that will achieve the intended goals. A good design has a high degree of precision, lacks bias and is appropriate to the problem under study. A descriptive correlation design was used in this study. A descriptive correlational study examines the linear relationships between two or more variables in order to determine the type and strength of the relationship. In this study, the variables under study are knowledge on self-care practices as the independent variable and occurrence of abortion as the dependent variable. The descriptive element of the study involves the accurate portrayal of current phenomena of interest and the frequency with which that

phenomena occurs [Polit & Beck 2008]. This design was selected by the investigator because it sought to identify the relationships between level of knowledge on self-care practice and occurrence of abortion among women admitted for post-abortion care.

Sampling Plan

A sampling plan describes the strategies that will be used to obtain a sample for a study, [Burns & Grove 2005]. A sample is a portion of the population that represents the entire population. According to Burns & Grove [2005], a sample is developed to increase the representativeness, decrease systematic bias and decrease sampling error between the study sample and the population. The target population in this study was made up of all the women admitted with abortions at Gwanda Gynaecology ward. The investigator used non-probability sampling which is used in most disciplines including nursing.

Inclusion criteria

An inclusion criterion is a list of characteristics essential for membership in the accessible population (Burns & Grove 2005). It also refers to the specific characteristics that the investigator wishes to include as essential characteristics of the target population so as to achieve homogeneity, control extraneous variables, provide a guideline for the sample recruitment and enable replication (Burns & Grove 2005). In this study, samples were selected from all women with abortion admitted at Gwanda Provincial Hospital Gynaecology ward with ages ranging from 15 – 49 years [childbearing age].

Exclusion criteria

Exclusion criteria refers to the characteristics the investigator does not want in the study, hence in this study all those below 15 years and above 49 years were excluded to avoid extraneous variables. The investigator did not consider those who were very ill since these subjects may not be able to give comprehensive answers due to illness.

Sample size

Sample size is the number of subjects in a sample. Generally the larger the sample the more representativeness of the population it is likely to be [Polit & Hungler 1995]. A number of factors determine the sample size. These are the power, effect size, the significance level of the statistic used as well as the potential attrition rate [Burns & Grove 2005, Polit & Hungler 1995].

However, even the largest possible sample may not eradicate bias. Burns & Grove [2005] maintain that the deciding factor in determining the sample size is the power. Power is the capacity of the study to detect differences or relationships that actually exist in the population, [Polit & Hungler 1995]. It is the capacity to accept or reject the null hypothesis. Therefore, a power of .80 was used in this study because it is minimum acceptable power for a study [Burns & Groove 2005]. This means that the risk of committing a type II error is .20. A type II error is failing to detect existing relationships [Burns & Grove, 2005].

The effect size is the degree to which a phenomenon is present or absent in the population being studied [Woods & Catanzaro, 1998]. If the effect size is small, detecting it will be more difficult and requires large samples [Burns & Grove, 2005].

Effect size affects power. Polit & Sherman [1999], state that the effect size is a measure of how wrong the null hypothesis is. It is a strong index of how strong the effect of knowledge on self-care practice is on occurrence of abortion which is the independent and dependent variables. As the value of effect size increases, power also increases and the needed sample size decreases. The smaller effect size would be .2, a medium effect size is .5 and a large effect size is .8. A medium effect size of .5 was used in this study. Research has related nursing studies as having small to medium (.5) effect sizes (Burns & Grove, 2005).

Significance level is the probability that an observed relationship or the results are likely to be due to chance (Burns & Grove 2005). It tries to control the likelihood of making a Type 1 error, which occurs when an investigator rejects the null hypothesis when in fact it is true and should be accepted. A significance level of 0.05 means that only five times of 100 similar results would be obtained. The researcher can therefore have a high degree of confidence that the findings are reliable (Pilot and Hungler).

In nursing studies, the level of significance is usually at 0.05 or 0.01 because of the seriousness of type 11 error. A significance level of 0.05 was used in this study. Calculating the sample size requires that one knows the level of significance, power and effect size. Using the Lipsey power tables, basing on power of .80, effect size of .5 and a significance level of 0.05, the calculated sample size was 65 subjects. According to Burns & Grove [2005], the sample size needs to be larger than the calculated number because of potential attrition rate. Therefore in this study a sample of 78 was

used which includes 65 plus 20% attrition rate of 13. The attrition rate in this study was calculated as $65 \times 20/100 = 13$.

Sampling Procedure

A sampling procedure defines the process of selecting subjects for a study. The non-probability convenient sampling method was used. Convenience sampling entails the use of the most conveniently available people or subjects in a study [Polit & Hungler 1995]. This method was considered due to time limit and number of clients portrayed in the statistics during literature review.

Variables

These are qualities, properties or characteristics of persons, things or situations that change or vary and are manipulated or measured in research (Burns & Grove 2005). Study variables were independent (knowledge levels on self-care practice and dependent occurrence of abortion). Demographic variable of the subjects was also studied.

Conceptual and Operational Definitions

Polit & Beck (2006) defined operational definition as the definition of concept or variable in terms of the operations or procedure by which it is measured. A conceptual definition provides a variable, a connotative (abstract comprehensive, theoretical) meaning and is established through concept analysis, concept derivation or concept synthesis (Burns & Grove 2005).

Self-care in this study is defined as the outcome, which are no abortions.

Abortion occurrence is the frequency in termination of pregnancy before the fetus is viable, that is before 24 weeks gestation [Fraiser & Cooper 2003]. It shall be operationalised by occurrence of abortion questionnaire.

Self-care practice is defined as the practice of those activities that maintain life, health and well-being [Caetano et al 2005]. It shall be operationalised by self-care practice questionnaire

Demographic Variables

The demographic variable pertains the biologic characteristics of the subjects and was measured by a demographic questionnaire.

Research Instrument

An instrument is a device that an investigator uses to collect data [Polit & Hungler 1999]. In this study a questionnaire was used to collect data. The instrument was divided into three sections that is the demographic data questionnaire, occurrence of abortion questionnaire and the self-care practice questionnaire. The instrument consists of 29 items. The section on demographic variables consists of seven items. These items obtained information that showed the characteristics of the subjects.

Occurrence of abortion

Section B consisted of the dependent variable which is on occurrence of abortion. The questionnaire on occurrence of abortion attempted to find out the number of abortion the client has had though even one abortion is as bad to women of childbearing age. It consists of eight items measured on an ordinary scoring ranging from 0-3. The other seven items sought to understand the variable of the occurrence of abortion. The maximum score was ten and the minimum score of zero.

Knowledge on self-care practice

Section B is on knowledge on self-care practice which is the independent variable. It is divided into 14 items. The score range was from 0-14 in an ordinary scale where 14 points is defined as having knowledge on self-care practice and 0 as having no knowledge on self-care practices. Maximum score is 14 points and minimum score is 0. A total score of 0-9 points indicates low levels of knowledge on self-care practices, 10-14 indicates moderate levels of knowledge on self-care practices, and scores 10-14 indicates high levels of knowledge on self-care practices.

Demographic variables

The demographic variables of this study were the personal information relevant to the study. These included age, number of children, number of pregnancies, marital status, employment status, educational status and religion. These assisted the investigator to determine whether the demographic variables had any influence on occurrence of abortions.

Reliability of the Instrument

The reliability of the instrument is the degree of the consistency with which it measures the attribute it is supposed to be measuring [Polit & Hungler 1995].

Reliability is considered a measure of the amount of random error in the measurement technique and is concerned with such characteristics as dependability, consistency, accuracy and compatibility [Burns & Grove, 2005]. Reliability testing was done on the instrument prior to conducting the study. This was done through a pilot study. The pilot study was done to enable identification of any parts of the research instrument lacking. The questions were moderated or omitted as was necessary.

Validity

Validity refers to the degree to which an instrument measures what it is supposed to be measuring [Burns & Grove 2005]. A measuring device that is unreliable cannot possibly be valid [Polit & Hungler 1999]. Cook & Cambell, [2000] describe four types of validity namely statistical, conclusion internal validity, and external validity and construct validity. In this study construct validity of the questions was examined by fitness between the conceptual definitions, [Burns &Grove 1997]. Content validity was assured by scrutiny of instrument by supervisor. The investigator also carried out a pilot study to pre-test the instrument, to improve the content validity.

Pilot study

Pilot study is a small-scale version or trial run one in preparation for a major study. It was conducted to find out whether the instrument was user friendly and whether subjects understand the questions. Polit & Becker [2006] state that if the questions are to be effective it is essential that the questions be pre-tested in order to identify ambiguity, misunderstanding or other inadequacies. Alterations were made on questions two and three where subjects were not familiar with the words parity and gravida. The questions were now phrased as how many children do you have and how many times did you get pregnant. Before the study was conducted, permission from the institution was sought and subjects obtained. Ten subjects were recruited for the pilot study. These subjects were not included in the major study because they would have been sensitized.

Data Collection Plan

Data collection plan is a layout of series of events to be followed when gathering information for the study from subjects. Before embarking on data collection the investigator sought permission from the medical Research Board through the department of Nursing Science at the Institute of Continuing Health Education. Arrangements were made with the Gwanda Provincial Hospital Gynaecology Ward for collection of data. Subjects were conveniently selected. Data was collected within four weeks of April.

Human Rights Considerations

In any research, there is need to protect human subjects. Human subjects' participation in research is voluntary. Burns & Grove (2005) state that voluntary consent is the decision by the prospective subjects to take part in a study without coercion or any undue influence. Woods & Catanzaro (1998) state that it is the responsibility of the investigator to make appropriate information available to potential subjects, ensuring their competency and assisting them understand what they are expected to and how the information will be utilised. The purpose of the study and procedure was explained to study participants. Confidentiality and anonymity was assured. Permission to conduct the research was obtained from the Research Authority of Zimbabwe and the Medical Superintendent of Gwanda Provincial Hospital.

Data Collection Procedure

Data collection is the actual process of gathering information through asking questions to the subjects and the subjects answering questions. Questionnaires were used for data collection. The same questions were asked for all the subjects to enable

for consistency. The questionnaire took approximately 20 minutes to complete and no subject was rushed to complete the questions but were allowed enough time to complete the questionnaire. The investigator was around to allow for any clarifications. A private room was used for the sake of privacy. The site was visited daily around 0900hrs to 1300hrs and all the subjects who meet the criteria were included.

Data Presentation and Analysis

Data analysis can be defined as the process of carefully scrutinizing data by placing it in categories and applying statistical procedures, [Polit & Hungler 1999] Quantitative data analysis using Statistical Package for the Social Science [SPSS] was done using descriptive statistics that yield frequencies, percentages, measures of central tendency for example, mean mode, median, standard deviation and ranges presented in table form. A Pearson product moment correlation was calculated between knowledge levels on self-care practice and occurrence of abortion. Statistical significance was set at 5% level or at $\alpha < 0.05$. Regression analysis was done.

Demographic Data

Demographic findings were presented in table form and analyzed by use of descriptive statistics which are mean, mode, range, frequency and percentages.

Abortion Occurrence

Questions from the questionnaire were analysed through descriptive statistics. Data was presented in table form. The mean, mode, frequency and standard deviation was used to describe the research findings

Self-care practice

Descriptive statistics was used to analyse data. The findings were presented in table form. The mean, mode, frequency and standard deviation were used to describe the research findings.

Relationship between knowledge levels on self-care practice and occurrence of abortion

Inferential statistics was used to determine the relationship between self-care practice and abortion occurrence. Inferential statistics are statistics that permit one to generalise whether the relationship observed in a sample are likely to occur in larger population of concern. Data was presented by the use of tables.

Summary

In this chapter the study design, sampling procedure was discussed. A descriptive correctional research design was used to establish and describe the relationship between self- care practice and occurrence of abortion. A sampling plan describes the strategies that were used to obtain a study sample. The plan included identification of the study population and target population, which were women with abortion admitted at Gwanda Gynaecology ward. Convenience sampling was used to select the study sample. Questionnaire was used for data collection. The conceptual operational definitions were stated. A description of the data collection plan, human rights considerations, data collection procedure, data analysis procedure was outlined.

CHAPTER 4

RESULTS

This chapter presents results of the study and highlights of major findings. Data was analyzed using descriptive and inferential statistics. The data was presented in tables.

Summary

The purpose of this study was to examine the relationship between knowledge levels on self-care practice and occurrence of abortions among women of childbearing age admitted for post abortal care at Gwanda Gynaecology ward. The following questions were answered.

1. What is the occurrence of abortion among women of childbearing age admitted for post abortal care at Gwanda Gynaecolgy ward?
2. What is the knowledge levels on self-care practice among women of childbearing age admitted for post abortal care at Gwanda Gyneacological ward?
3. What is the relationship between knowledge levels on self-care practices and occurrence of abortion among women of childbearing age at Gwanda Gynaecological ward?

Orem's self-care model was used to guide the study. Data was collected during the month of April 2010. Seventy eight (78) women of childbearing age were selected into the study through convenience sampling which is a non-probability sampling technique. The response of the clients was one hundred percent. Analysis was done

using descriptive statistics which yielded frequencies, percentages and means. Inferential statistics was used to examine the relationship between knowledge levels on self-care practice and occurrence of abortions among women of childbearing age admitted for post abortal care at Gwanda Gynaecological Ward. Pearson correlation coefficient and Regression test were to show relationship and effect respectively.

Sample Demographics

Table 1 shows demographic characteristics of respondents which are age, parity, gravida, marital status, level of education, income per month and religion. The age range was between 15 to 45 years. The mean age was 26.1years. Sixteen respondents (20.5%) were aged between 15 to 20 years, twenty-six respondents (33.3%) were aged between 21 to 25 years, sixteen respondents (20.5%) were aged between 26 to 30years, thirteen respondents (16.7%) were aged between 31 to 35years, five respondents (6.4%) were aged between 36 to 40years, and two respondents (2.6%) were aged between 41 to 45years.

Twenty six respondents (33.3%) had no children, twenty-five (32.1%) had one child, sixteen (20.5%) had two children, nine (11.5%) had three children and two (2.6%) had more than three children. The number of children ranged from zero to above three. Twenty six of the respondents (33.3%) had no children, twenty-five(32.1%) had one child, sixteen(20.5%) had two children, nine (11.5%) had three children and two (2.6%) had more than three children. The number of children ranged from zero to above three.

Twenty-eight of the respondents (35.9%) were single, forty-six (59.0%) were married, three (3.8%) were either separated or divorced and one (1.3%) was widowed

[table 2]. On table 2, four of the respondents (5.1%) had received no education, sixteen (20.5%) had been educated up to primary level, fifty-two (66.7%) had attained secondary education and six [7,7%] had attained tertiary education. The minimum level of education was no education and the maximum level was tertiary education.

Eleven of the respondents (14.1%) were working and on a salary ranging from \$123 to \$500, and sixty-seven (85.9%) were not working and not on a salary. Seventy-seven respondents (98.7%) were Christians and one (1. 3%) was a traditionalist [Table2].

Table 1 – Sample Demographics

(N=78)

Variable	Frequency	Percentage
<u>Age in years</u>		
15-20	16	20.5
21-25	26	33.3
26-30	16	20.5
31-35	13	16.7
36-40	5	6.4
41-45	2	2.6
<u>Number of Children</u>		
None	26	33.3
One	25	32.1
Three	6	20.5
Three	9	11.5
More than three	2	2.6
<u>Number of Pregnancies</u>		
One	19	24.4
Two	27	34.6
Three	17	21.8
More than three	15	19.2

Table 2 – Sample Demographics

(N=78)

Variable	Frequency	Percentage
<u>Marital Status</u>		
Single	28	35.9
Married	46	59.0
Divorced/ Separated	3	3.8
Widowed	1	1.3
<u>Educational Level</u>		
Never been to school	4	5.1
Primary	16	20.5
Secondary	52	66.7
Tertiary	6	7.7
<u>Income per month</u>		
Salary/Income	11	14.1
No salary/no income	67	85.9
<u>Religion</u>		
Christian	77	98.7
Moslem	0	0
Tradition	1	1.3

Occurrence of Abortion

Table 3 reveals information on occurrence of abortion and factors surrounding abortion. Thirty six respondents (46%) had abortions for the first time, twenty one (26.6%) had abortions twice, sixteen (20.5%) had three abortions and five (6.4%) had more than three abortions. Forty six of the respondents (59%) had abortions below sixteen weeks gestation, thirty two (41%) had abortions between seventeen to twenty four weeks gestation. Thirty two of the respondents (41.0%) have had premature delivery previously and forty six (59%) had never had premature delivery. At what gestation respondents had premature delivery; out of the thirty two respondents, who have had premature delivery, twenty four respondents had premature delivery at between 24 to 32 weeks, eight(25%) had premature delivery at between 33 and 36 weeks.

Table4 also reveals that fifty two of the respondents (66.7%) agreed to have done something which could have induced labour; twenty six (33.3%) mentioned that labour started spontaneously. Of those who admitted having done something which could have induced abortion; twenty four (46.2%) associated labour with excessive workload for example working in the fields, gold panning, moulding bricks and one (1.9%) associated the abortion with washing of family blankets. Two (3.8%) indicated that they had fights with the husbands. Ten of the respondents (19.2%) indicated travelling long distances and ten(19.2%) indicated different views for example five associated abortions with witchcraft and evil spirits. Respondents were also asked whether they sought treatment early; fifty one of the respondents (65.4%) sought treatment early and twenty seven(34.6%) delayed in seeking treatment. Different

reasons were cited for the delays, for example, transport problems (37.0%), lack of money (48.1%) and 14.9% thought bleeding was going to stop on its own.

Table 5 shows the total score for occurrence of abortion. The scores were measured from 0 to 3. The minimum score was 0 and the possible maximum score was 10. The mean score was 2.13. The standard deviation was 0.96. Forty two of the respondents (53.8%) had abortions more than once.

Table 3 - Occurrence of abortion

(N- 78)

Variable	Frequency	Percentage
<u>How many times of having abortion</u>		
Once	36	46.2
Twice	21	26.9
Thrice	16	20.5
More	5	6.4
<u>Gestation of miscarriage</u>		
Below 16 weeks	46	59.0
17 weeks – 24 weeks	32	41.0
Above 24 weeks	0	0.0
<u>Premature Delivery</u>		
Yes	32	41.0
No	46	59.0
<u>Gestation at delivery of premature baby</u>		
24-32weeks	24	30.8
33-36weeks	6	7.7
No preterm	48	61.5

Table 4- Occurrence of abortion

(N- 78)

Variable	Frequency	Percentage
<u>Done something</u>		
Yes	46	59.0
No	32	41.0
<u>Reporting to hospital early</u>		
Yes	27	34.6
No	51	65.4

Table 5
N=78
Total scores for occurrence of abortion

Variable	Frequency	Percentage
0	5	6.4
1	16	20.5
2	21	26.9
3	36	46.2

Knowledge level on self-care practice

Table 6 reveals the levels of knowledge on self-care practice among women of childbearing age admitted for post abortal care at Gwanda Gynaecological ward. On use of contraception to prevent unwanted pregnancy; fifty two of the respondents (66.7%) agreed, and twenty six (33.3%) disagreed.

On knowledge on condom use; fifty two of the respondents (66.7%) agreed and twenty six (16.7%) disagreed that condom use prevents from pregnancy. On whether condoms should always be used as protection against pregnancy, forty of the respondents (51.3%) agreed, and thirty eight respondents (33.3%) disagreed that condoms should always be used to protect against pregnancy.

Forty nine respondents (62.8%) agreed and twenty nine respondents (6.4%) did not agree that exercises are important during pregnancy. On whether it is important for someone who is pregnant to be assisted with household chores; fifty-four respondents (69.2%) agreed and twenty four respondents (20.5%) disagreed.

On excessive work predisposing to spontaneous abortion; sixty one respondents (78.2%) agreed, and seventeen respondents (14.1%) disagreed. Fifty eight of the respondents (74.4%) disagreed and twenty (25.6%) agreed that smoking is recommended during pregnancy.

Table 7 displays information on whether someone who is pregnant who decides to smoke, should not exceed five cigarettes per day; thirty eight of the respondents (48.7%) agree and forty (51.3%) disagreed. On whether a pregnant woman can get affected by smoke from a smoking husband; forty five of the respondents (57.7%) agreed and thirty-three (42.3%) disagreed.

Thirty one of the respondents (39.7%) agreed and forty seven (60.3%) disagreed that alcohol should be consumed by a pregnant woman. On whether alcohol above two units should be consumed per day during pregnancy; forty one of the respondents (52.6%) agreed and thirty-seven respondents (47.4%) disagreed. Twenty one of the respondents (26.9%) agreed and fifty-seven (73.1%) disagreed buying drugs over the counter when one is pregnant. Forty respondents (51.3%) agreed and thirty- eight respondents (48.7%) disagreed that a fore consulting a nurse. Thirty of the respondents (38.5%) agreed, forty eight respondents (61.5%) disagreed that pregnant women should use herbs.

Table 8 shows the knowledge levels on self-care practices on occurrence of abortions. The total scores were graded into 2 categories which are low and high knowledge levels on self-care practices on occurrence of abortion. A total score of 0-9 indicates low knowledge levels on self-care practices and a score of 10-14 indicates high knowledge levels on self-care practices. The mean score was 8.54, standard deviation 2.47, mode 7 and median 8.

Table 9 shows the total scores for knowledge levels on self-care practices. The minimum score was 0 and the possible maximum score was 14. The mean score was 8.54, standard deviation 2.47. Thirty eight of the respondents were below the mean.

Table 4-5 - Knowledge on Self-care practice

(N=78)

Variable	Frequency	Percentage
<u>Contraceptives</u>		
Agree	52	66.7
Disagree	26	33.3
<u>Condoms</u>		
Agree	52	66.7
Disagree	26	33.3
<u>Always be used</u>		
Agree	38	48.7
Disagree	40	51.3
<u>Household chores</u>		
Agree	54	69.2
Disagree	24	30.8
<u>Excessive work</u>		
Agree	61`	78.2
Disagree	17	21.8
<u>Smoking recommended</u>		
Agree	20	25.6
Disagree	58	74.4

Table 4-6 - Knowledge on Self-care practice

(N=78)

Variable	Frequency	Percentage
<u>Five cigarettes per day</u>		
Agree	38	48.7
Disagree	40	51
<u>Drinking alcohol</u>		
Agree	41	52.6
Disagree	37	47.4
<u>Alcohol above two units</u>		
Agree	41	52.6
Disagree	37	47.4
<u>Drugs in pregnancy</u>		
Agree	21	26.9
Disagree	57	73.1
<u>Use of anti-malaria</u>		
Agree	40	51.3
Disagree	38	48.7
<u>Use of herbs</u>		
Agree	30	38.5
Disagree	48	61.5

Table 8

Categories of knowledge levels on self-care practices on occurrence of abortions

N= 78

Levels of knowledge	Range	Frequency	Percentage
Low	0 – 9	54	69.2
High	10 – 14	24	30.8

Table 9

N=78

Total scores for levels of knowledge on self-care practices

Variable	Frequency	Percentage
3	2	2.6
4	1	1.3
5	5	6.4
6	7	9.0
7	14	17.9
8	13	16.7
9	9	11.5
10	8	10.3
11	7	9.0
12	7	9.0
13	5	6.4

Relationship between knowledge levels on self-care and occurrence of abortion

Table 10 shows the Pearson's correlation coefficient indicating the relationship between knowledge on self-care practice and occurrence of abortion among women of childbearing age, $r = -.265^*$, $P < 0.05$. This shows that there was a weak negative correlation between knowledge levels on self-care and occurrence of abortion among women of childbearing age admitted for post-abortion care at Gwanda Gynaecological ward.

Table 11 represents regression analysis of relationship between knowledge levels on self-care practice and occurrence of abortion. The regression coefficient was .070 which means that 7% variation or change in occurrence of abortion is explained by the change in knowledge levels on self-care practice. An increase in knowledge on self-care practice causes a decrease in occurrence of abortion.

Table 10

Correlation output for knowledge levels on self-care practice and occurrence of abortion.

Variable	Y
	1.000
X	-.265*

*P < 0.05. **P < 0.01. ***P < 0.001.

Key: X=knowledge on self-care practice

Y=occurrence of abortion

Table 11

N=78

Variable	B	SEB	BETA
X	-103	.043	-.265*
Constant	3.005	.381	
R- Squared =.070		F= 5.740	
*P< .005	**P<.01	***P<.001	

Key: X = Knowledge levels on self-care practice

Chapter 5

Discussion, implication and recommendations

Introduction

This chapter presents the discussions of the findings, conclusions and implications of the study that were drawn. The discussions focus on the specific study questions which addressed occurrence of abortions and the knowledge level on self-care practice among women of childbearing age. Finally recommendations that are based on the research findings are given. Relevant literature was used as a frame of reference during discussion of findings.

Summary

This study was conducted at a Provincial Hospital. A specific age group of 15 to 49 years old women admitted for post abortal care was interviewed. The purpose of this descriptive correlational study was to determine the relationship between knowledge levels on self-care practice and occurrence of abortion among women of childbearing age admitted for post-abortal care at Gwanda Gynaecological ward. A sample size of seventy-eight subjects was used. Data was analyzed through descriptive statistics and inferential statistics.

The respondents' mean age was 26,1years, standard deviation was 6.66, median age was 25 years and modal age was 22 years. The dependent variable was occurrence of abortion. Study findings indicated that patients were increasingly reporting abortion cases. As much as health professionals wouldn't like to have any patients having abortion, respondents revealed that abortions are occurring at an alarming rate; forty two respondents (53.8%) had abortions more than once.

The independent variable was knowledge levels on self-care practice. Knowledge on self-care practice is essential in reducing occurrence of abortion. Fifty four of the respondents (69.2%) had low knowledge and twenty four (30.8%) had high knowledge levels on self-care practice. The mean score was 8.4 with forty respondents (51.3%) scoring above the mean and thirty eight (48.7%) respondents scoring below the mean. Study findings revealed a generally low knowledge levels on self-care practice to reduce occurrence of abortions.

Application of the Pearson Product moment correlation, test showed that there was a weak negative correlation ($r=-.265$) between knowledge levels on self-care practice and occurrence of abortion. The results of this study show that knowledge on self-care practice have a weak effect on occurrence of abortion. R- squared indicated that levels of knowledge on self-care accounts for 7% of variance in occurrence of abortion. In this study, the findings weakly supported the premise that as levels of knowledge increase, occurrence of abortions decreases.

Discussion and Implications

Sample demographics

Seventy-eight (78) subjects composed the sample of the study following convenience selection. Fifteen of the respondents (19.2%). were below the age of eighteen years which is the recommended age of majority in Zimbabwe. This could imply that these respondents could have abortions because they are young, they do not have experience in the management of pregnancy. From the research findings these respondents had low knowledge on self-care practices. According to Msjostrand (2001) in a study conducted in Marashtra found that the need to space children was the

most cited reason that adolescents had abortions because most of these young women did not have experience using contraceptives ending up in unwanted pregnancies.. Most of these young women did not have experience using contraceptives ending up in unwanted pregnancies. Guillaume and Desgrees [2003] also highlighted that in Sub-Saharan Africa, young women consider child-rearing expenses to be incompatible with schooling and resort to abortions. Muti (2005) also cited that young women resort to abortion because of their parents' reaction and with some adolescence had their partners demanded that they should do so.

Seventeen of the respondents (21.8%) had more than three children. Sousa et al (2009), in a study conducted in Mexico reported causes of abortion as mis-timed pregnancies, unwanted and whether the woman had three or more children at the time of abortion. Single women consisted of 35.9% of the respondents. This concurs with Guillaume and Desgrees du Lou (2002) who cited that most of those who were having abortions were single. He mentioned that abortion rate was higher among unmarried than married women and childbearing outside marriage is socially unacceptable in Ivorian society.

The majority of the respondents fifty two(66.7%) had secondary education. Education assists a woman to be self-empowered. Education increases people's understanding and ability to benefit from health education [Financial Report 2007].

Over fourteen percent (14.1%) of the subjects were on an income, the majority of subjects on no salary. Becker (2004) cited that some women had abortions because they had economic problems. They could not afford bringing up the child in poverty. In this study because subjects had no income, resorted to gold panning as a source of

income. Because this occupation involved digging and carrying heavy loads of soil predisposes them to abortions. Poverty also predisposes to malnutrition and malnutrition predisposes to abortion [Myles 1996]. Seventy seven of the respondents (98.7%) of the subjects were Christians; one was a traditionalist. In a study conducted by Moscovis (2008) it was found that 80% of women who had abortions were Christians, 11% were Moslems and 9% were Hinduism. These results show that abortion is common in most religions.

Occurrence of abortion

Responding to the question on how many times respondents had a miscarriage, forty two respondents (53.8%) had abortions more than once which was alarming. These results concurred with a study which was conducted in Uganda where 76% of the abortion patients had a previous abortion (Mohammed & Msjostrand 2005).

On occurrence of abortion, in a study conducted in Uganda, 50% of abortions were likely to have induced abortions. In the same study 76% of the abortion patients had a previous abortion (Mohammed & Msjostrand 2005).

Majority of the respondents, forty six (59%) had abortions below sixteen weeks. This was supported by Bobak and Jansen (1991) who discovered that about three quarters of abortions occur before the 16th week of pregnancy and majority of these take place before the 8th week of pregnancy. Thirty six respondents (46.2%) had abortions for the first time, twenty one respondents (26.9%) had abortions twice, sixteen respondents (20.5%) had abortions for the third time and five respondents (6.4%) had had abortions more than three times. It was surprising that majority of the subjects had abortions occurring for the second or more times. Despite having the

knowledge on self-care practices that predisposes to abortion, abortions still occur at an alarming rate. At what gestation the subjects miscarry, majority of the subjects, forty six respondents (59.0%) had their abortions below sixteen weeks. This was supported by Bobak and Jansen (1991) who categorized abortions into two, early spontaneous abortion which is a miscarriage that occurs before 16weeks and a late abortion occurring between 16 weeks and 24 weeks gestation. About three quarters of these abortions occur before the 16th week of pregnancy and majority of these take place before the 8th week of pregnancy.

Thirty two of the respondents (41.0%) had premature delivery previously. This may imply that the respondents lack knowledge on self-care practice ending up with termination of pregnancy before term. It is important at this point to note that with the crisis of occurrence of abortion, the priority measure to stop abortion is health education on self-care practice to women of childbearing (Nyandoro 2008). Forty six of the respondents (59%) agreed to have done something that could have induced labour; twenty four (30.8%) associated their labour with excessive workload. The workload related were stated as working in the fields, gold panning, brick moulding and one client reported having washed family blankets. This is supported by Haltka et al (1991) that discovered that physical activities at home or at work were reported as having associations with spontaneous abortion. They went on to say maternal physical activity during pregnancy is associated with spontaneous abortion but in most cases they would be in an intrauterine environment to alter the chance of loss for both chromosomally normal aberrant conceptions. Two of the respondents indicated that they had a fight with their husbands. A punch to the abdomen causes early separation

of the placenta leading to abortion[Fraiser & Cooper 2003]. Six of the respondents associated their abortions with witchcraft. It is important as health professionals to take note of such sentiments so that knowledge is imparted to clients so that they understand what could be done to prevent occurrence of abortions.

Fifty two [66.7%] of the respondents sought early treatment and twenty six reported late to hospital. On asking this question, the investigator had associated late treatment seeking with those who would have induced their abortions but this was not true as most of those who reported late cited transport problems as their reasons for reporting late. This is in concurrence with the Ministry of Health report(2008) which cited transport problems as one the delays causing high mortality rate. Transport is one of the problems in Zimbabwe, [Nyandoro 2009]

Knowledge on self-care practice

Self-care practice was defined as the practice of those activities that maintain life, health and well-being [Caetano et al 2006]. The total scores for knowledge on self-care practice were 14 with majority fifty four of the respondents(69.3%) scoring low knowledge on self-care practice. This contradicts the fact that most respondents had secondary education. The ability to acquire and apply knowledge depends on schooling [Financial Report 2007]. This explains the reason why most of the respondents were having abortions because had little knowledge on self-care practices.

Fifty respondents (66.7%) agreed that contraception prevents unwanted pregnancy. This information concurs with the Allan Guttmacher Institute [1999] who wrote that though use of family planning methods has become popular, many women do not want to be pregnant but are not using contraceptives. The reasons why they do

not want to use contraceptives are some women dislike the side-effects of the pill. Some women have broken up with their sexual partners and believe that they will no longer need a contraceptive but find themselves sexually active anyway, predisposing them to unwanted pregnancies, [Luker 2005].

In Sub-Saharan Africa, men are sole decision makers in a relationship. So at times it becomes difficult for a woman to practice positive self-care practices. In fact they are told what to do and probably barred from using contraceptives to prevent unwanted pregnancy. The subjects might have the knowledge on use of contraceptives to prevent unwanted pregnancies, might want to use it but do not have access to contraceptives because they are expensive, supplies are erratic or services are difficult to get to, [MOHCW 2004].

In an attempt to determine the subjects' knowledge level on whether condoms protect against pregnancy, forty eight of the respondents (61.5%) agreed that condoms protect against pregnancy. "Knowledge is power"; this is an old English adage but is it a reality in the African set up. There are myths and misconceptions about condom use. This was supported by Smith [2003] who wrote that condom use is associated with prostitution or disease prevention rather than contraception. Majority of the respondents (66.7%) agreed that condoms should be used to protect against pregnancy. International Family Planning Perspectives wrote that, though exercises are recommended, in the African set up, exercises are over done. Fraiser and Cooper [2005] also cited causes of spontaneous abortion as excessive work during pregnancy. Study findings revealed that respondents were performing excessive work like gold panning predisposes to spontaneous abortions.

Majority (69.2%) of the respondents had the knowledge that pregnant women should be assisted with work for the family. Chauke (2004) unpublished discovered that African culture allows daughters in law to perform household chores on her own despite the fact that she is pregnant. Most of these women lack rest predisposing them to spontaneous abortion which implies that family members should be encouraged to assist their pregnant relative.

With regard to smoking during pregnancy, majority of the clients fifty-eight (74.4%) respondents were against the idea that smoking should be recommended during pregnancy. The respondents had knowledge that smoking is harmful. Fraiser & Cooper (2003) wrote that smoking have been found to increase the risk of abortion. Majority of respondents were not familiar with how many cigarettes should be taken per day. This was so because in Zimbabwe, smoking cigarette smoking is not common especially in rural areas; majority of the respondents did not know how many cigarettes a women should take per day. Fraiser and Cooper wrote that women that smoking twenty cigarettes per day have high risks of abortion.

Most respondents (54.5%) did not know whether a pregnant woman can get affected by smoke from a smoking husband. Gayle et al 2009 commented that although cigarette is often considered a risk for spontaneous abortion, in another study by the same author it was discovered that maternal direct and environmental exposure, the association appeared to be stronger in second-trimester abortions.

Responding to the question on alcohol drinking during pregnancy, most respondents (56, 4%) had no knowledge on whether to drink or not. Paruzmmi et al (2007) wrote that alcohol administered in large doses around the time of conception or

during early pregnancy increases the frequency of embryonal resorption predisposing to abortion. In this study the majority of the respondents (52.6%) did not know the amount of alcohol which is dangerous to take.

On whether pregnant women are recommended to buy drugs over the counter, 73.1% of respondents had the knowledge that drugs should not be bought over the counter. It showed that respondents would not risk using drugs without a prescription. Forty six percent (46.2 %) respondents supported the idea that a pregnant woman should not take anti-malaria drugs without consulting a doctor. In a study conducted in Binga, it was found that spontaneous abortion was common due to malaria parasite infestation and the research suspected that spontaneous abortions could be due to drugs used during severe malaria attacks. (Munjanja 2006).

Responding to the question on use of herbs during pregnancy, thirty of the respondents (38.5%) were against the use of herbs. Forty eight of the respondents (61.5%) supported the idea. This is supported by Freira who believed people live in a “Magic world.” Maclosky et al (2006) reported that in some parts of Africa, abortion may be due to certain practices. Use of herbs has a negative impact on the pregnancy. This may be improved if patients are taught and understand what the importance of self-care practice is.

Relationship between knowledge levels on self-care practices and occurrence of abortion

Application of the Pearson Product moment correlation was done to examine the relationship between levels of knowledge on self-care practice and occurrence of

abortion. The analysis of the results from this study has shown a weak negative correlation of ($r = .265^*$) implying that as knowledge on self-care increase, occurrence of abortions decreases. Majority of the respondents (69.2%) had low knowledge on self-care practice leading them to bad practices. This implies that more knowledge should be imparted to women so that they practice what is good for their health.

Linear regression analysis showed that levels of knowledge on self-care practice had a weak effect on occurrence of abortion. R-squared indicated that knowledge levels on self-care practices accounts for 7% variance in occurrence of abortion. In this study, the findings supported the premise that as knowledge levels increases, occurrence of abortion decreases.

Theoretical Framework

Orem's self-care model was used to direct and guide this study. The focus of the model is on self-care. The concepts chosen from Orem's self-care were self-care deficit which in this study corresponded to abortion, supportive-educative which corresponded to education given to promote self-care which in this case corresponded to reduced abortions.

Orem [1991] proposed that self-care agency's capabilities enable an individual to care for self. The supportive educative theory was chosen because it explains how nursing agency uses education to empower the client to care for self. Orem's self-care model can be utilized to give and direct the health education delivered to clients following abortions to prevent further occurrence of abortions.

Implications to Maternal Child health/Midwifery Practice, Education and Research

Midwifery/Nurse Practice

Findings from this study showed that forty eight respondents (61.5%) had moderate knowledge on self-care practice. Low knowledge levels explained the inconsistencies in self-care practice. This called for empowerment of women on consistence use of family planning methods to prevent unwanted pregnancies is crucial. Culturally women are socialized to be subservient to their male counterparts even in this present era. In this research the investigator discovered that some abortions were associated with excessive work for example gold panning. This implies that the male counterpart is not responsible enough to support the woman hence involvement of men in health education.

Empowering women addresses the millennium Development Goal [MDG5] which targets to reduce maternal mortality by $\frac{3}{4}$ by 2015 for example once the women are empowered, they will prevent occurrence of abortions by doing those self-care practices which will not predispose them to abortions.

Involvement of family members is also important as awareness of risk factors may cause families to make an effort to reduce risks within their control. For example families should be encouraged to assist their in laws with chores to avoid excessive workload.

Education

The findings revealed that the majority of respondents (61.5%) had moderate knowledge on self-care practice, so it is important for the nursing personnel to reinforce health education on self-care practice to prevent occurrence of abortions.

Nursing curricula should also incorporate nursing research findings, utilizing for example uplifting self-care practices in prevention of spontaneous abortions. At times nurses take some things for granted that people know yet clients will have inadequate knowledge. It is important that right from their training and their practice, midwives appreciate the importance of giving health information about even things considered minor or common to everyone.

Research

The findings have shown possible shortcomings of nursing and midwifery care in terms of information giving. The varied responses by mothers on knowledge of self-care and occurrence of abortions may be due to nurses and midwives not knowing about the community's health behavior. There is need to find out what nurses/midwives know about self-care practices in relation to abortions and what information mothers are given by the health care providers. These findings may provide a starting point for midwives in designing appropriate programmes to meet the mothers' educational needs.

Recommendations

1. Based on the findings of the study it is recommended that women be empowered on the knowledge on self-care practices through information giving.
2. Another study aspect could be an investigation on how much information is given to women and the public at large on self-care practice to reduce occurrence of abortions.

3. 8. Further research should be carried out to determine other factors related to occurrence of abortion since study results indicated that only a weak relationship existed between knowledge on self –care practice and occurrence of abortion.

Limitations

Limitations are restrictions in a study that may decrease the generalisability of the study findings[Burns & Groove 2005]. The two limitations are theoretical and methodological limitations.

1. The results of the study cannot be generalised because the study was done on a small sample.
2. The instrument was designed by the investigator and has never been subjected to validity tests.
3. The respondents were sampled through convenience sampling which is a weak method of data collection; anyhow this method was used because of short duration given for data collection.

Summary

Abortion is a major public health problem across the globe. In Zimbabwe it is estimated that ten to fifteen abortions occur annually. It is one of the leading causes of maternal morbidity and mortality. The purpose of this study was to determine the relationship between knowledge on self-care practice and occurrence of abortion among women of child bearing age. The study utilized Orem's self-care model.

Descriptive correlational design was used and non-probability sampling was employed. The sample size was seventy eight subjects. The instrument used to measure the variables was a questionnaire which had three sections. The demographic data was measured by the demographic data measuring tool, the knowledge levels on self-care practice was measured through knowledge level tool and occurrence of abortion was measured through occurrence of abortion tool. Respondents showed that majority of them (69.2%) had low knowledge on self-care practice. The occurrence of abortion tool revealed that abortions were rife as majority of the respondents (53.8%) had more than one abortion.

Descriptive statistics were used to describe, analyze and summarize data on knowledge levels on self-care practice and occurrence of abortions. These included the mean, mode, median, range, percentage, frequencies and standard deviation. The mean score on occurrence of abortion was 2.13 and standard deviation was . The mean score on knowledge on self-care practice was 8.54 and standard deviation was 2.47. Pearson correlation coefficient was used to establish the relationship between knowledge levels on self-care practice and occurrence of abortion. A significant negative relationship was noted $r = -.265^*$. The results of the study show that levels of knowledge on self-care practice have a weak effect on occurrence of abortion. R-squared indicated that levels of knowledge on self-care practice accounts for 7% variance in occurrence of abortion.

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APPENDIX A

Questionnaire

Section A

Demographic Data

Instructions: Tick the correct statements give. [Fill in the gaps].

1. How old are you?

--

2. How many children do you have?

1. Zero

2. One

3. Two

4. Three

5. More Than Three

3. How many times did you get pregnant?

1. One

2. Two

3. Three

4. More than three

4. What is your marital status?

1. Single
2. Married
3. Divorced /separated
4. Widowed

5. What is your level of education?

1. Did not go to school
2. Primary level
3. Secondary Level
4. Tertiary Level

6. What is your salary/income per month?

--

7. What is your religion?

1. Christianity
2. Moslem
3. Traditionalist
4. Other: Specify

Section B

Occurrence of abortion

8. How many times did you miscarry?

1. Once
2. Twice
3. Thrice
4. More than three times

9. At what gestation did you miscarry this pregnancy?

1. Below 12 weeks
2. Between 13 weeks to 24 weeks
3. Above 24 weeks

10. Have you ever had a premature delivery?

1. Yes
3. No

11. At what gestation did you deliver?

1. 24- 32 weeks
2. 33- 36 week
3. Never delivered a premature baby

12. Would you have done something that might have induced labour?

1. Yes

2. No

13. If yes, what is it?

.....

.....

.....

14. Did you seek any treatment after noticing signs and symptoms?

1. Yes

2. No

15. If no what were your reasons?

.....

.....

.....

Section C

Knowledge on Self-care Practice

16. Do you agree that use of contraception prevents unwanted pregnancy?

- 1. Agree
- 2. Disagree

17. Do condoms protect against pregnancy?

- 1. Agree
- 2. Disagree

18. Do you agree that condoms should always be used to protect from pregnancy?

- 1. Agree
- 2. Disagree

19. Are exercises important during pregnancy?

- 1. Agree
- 2. Disagree

20. Is it important for someone who is pregnant to be assisted to be with household chores?

- 1. Agree
- 2. Disagree

21. Do you think excessive work can predispose to spontaneous abortion?

- 1. Agree
- 2. Disagree

22. Is smoking recommended during pregnancy?

- 1. Agree
- 2. Disagree

23. If someone who is pregnant decides to smoke, should she exceed five cigarettes per day?

- 1. Agree
- 2. Disagree

24. Can a pregnant woman get affected by smoke from a husband who smokes?

- 1. Agree
- 2. Disagree

25. Is drinking alcohol recommended during pregnancy?

- 1. Agree
- 2. Disagree

26. Do you agree that alcohol above 2 units should be consumed per day during

pregnancy?

1. Agree

2. Disagree

27. Is buying over the counter drugs recommended when one is pregnant?

1. Agree

2. Disagree

28. Can a pregnant woman use anti-malaria drugs before consulting a nurse / doctor?

1. Agree

2. Disagree

29. Is use of herbs recommended when one is pregnant?

1. Agree

2. Disagree

Appendix B

Ugwalo lwemibuzo

TOPIC: Ubudlelwano phakathi kokugcina lokuswela kubomama abasebangeni lokuba labantwana abalaliswe esibhedlela seGwanda

ISIGABA SOKUQALA

Ngingakubuza imibuzo emayelana lawe. Ngicela uphendule ngeqiniso

Iziqondiso: Faka ukhwetshu lapha okuqondileyo

1. Uleminyaka emingaki?

2. Ulabantwana abangaki?

1. Angilabantwana

2. Oyedwa

3. Ababili

4. Abathathu

5. Bayadlula abathathu

3. Yisisu sesingaki?

1. Esokuqala

2. Esesibili

3.	Esesithathu	<div></div>
4.	Ngazithwala okudlula kathathu	<div></div>
4.	Utshadile na?	
1.	Angendanga	<div></div>
2.	Ngendile	<div></div>
3.	Sehlukana	<div></div>
4.	Ngingumfelokazi	<div></div>
5.	Ufunde okunganani?	
1.	Angizange ngiye esikholo	<div></div>
2.	Ngacina eprimary	<div></div>
3.	Ngacina esecondary	<div></div>
4.	Ngacina ngezimfundo eziphezulu	<div></div>
6.	Uholo mailini?	<div></div>
7.	Uyakhonza na? Ukuliphi ikholo?	
1.	IsiKhristu	<div></div>
2.	IsiMoslem	<div></div>
3.	IsiNtu	<div></div>
4.	Okunye (Chasisa)	<div></div>

ISIGABA SESIBILI

Ukuphuma kwesisu

8. Nxa uke waswela sekukangaki?

1. Kanye
2. Kabili
3. Kathathu
4. Okudlula kathathu

9. Uswele isisu sesingaki?

1. Phansi kwamaviki alitshumi lambili
2. Itshumi lambili kusiya kumatshumi amabili lane
3. Ukwedlula amatshumi amabili

10. Sewake wabeletha insuku zingakeneli?

1. Yebo
2. Hatshi

11. Nxa wake waswela, sasesinganani isisu?

1. Sesilenyanga ezinhlanu kusiya kweziyisithupha
2. Sesilenyanga eziyisikhombisa kusiya kweziyisitshiya galo-mbili
3. Sesilenyanga eziyisitshiya galo-mbili
4. Sesilenyange edlula istshiya galo-mbili

12. Kambe kungabe kwakunguwe owenza okuthile okwababangela lokho kuswela?

1. Yebo
2. Hatshi

13. Ungabe wabangela njani? Chasisa

.....

.....

14. Waphanga na ukuyakwelatshwa usubona ukuba usungaswela?

1. Yebo
2. Hatshi

15. Nika isizatho nxa ungazange uphuthume

.....

.....

Uyavumelana lakho na ukuthi ukusebenzisa amaphilisi kuvikela ukuthi umuntu

16. engazithwala?

1. Yebo

2. Hatsi

17 Kambe amakhondomu ayavikela owesifazana ekuthatheni isisu?

1. Yebo

2. Hatshi

Uyavumelana lakho na ukuthi amakhondomu asentshenziswe nsuku zonke ukuvikela

18. isisu?

1. Yebo

2. Hatshi

19. Kubalulekile yini ukuziyelula nxa umuntu ezithwele?

1. Yebo
2. Hatshi

20. Kuqakathekile na ukuthi nxa umuntu ezithwele abelomunye omncedisayo?

1. Yebo
2. Hatshi

21. Ucabanga ukuthi ukusebenza kakhulu kubangela ukuphuma kwesisu?

1. Yebo
2. Hatshi

22. Ubona angani ukubhema kuyavunyelwa emuntwini ozithweleyo?

1. Yebo
2. Hatshi

23. Nxa ozithweleyo engabhema igwayi,kuqondile na ukuba edlulise imihlanga emihlanu?

1. Yebo

2. Hatshi

Kambe intuthu ephongelwangamadoda kumbe umkabo ingaba yingozi na kulowo

24. ozithweleyo?

1. Yebo

2. Hathi

25. Ukunatha utshwala kungaba kuqondile nakozithweleyo

1. Yebo

2. Hathi

26. Uyavumelana lakho na ukuthi umuntu ozithweleyo kumele enathe utshwala oludlula
amambodlela adlula amabili?

1. Yebo

2. Hatshi

27. Kuqondile na ukuthi umuntu ozithwele ethenge imithi estholo?

1. Yebo

2. Hatshi

28. Kuqondile na ukuthi umuntu ozithwele esebenzise umuthi womkhuhlane woquqho engabonanga udokotela?

1. Yebo
2. Hatshi

29. Ukusebenzisa imithi yesintu kuqondile na nxa umuntu ezithwele?

1. Yebo
3. Hatshi

APPENDIX C

Consent Form

My name is Idzai B. Matsheza. I am a student with the University of Zimbabwe doing a Masters Degree in Nursing Science. I am carrying out a research study as fulfilment of requirements of the programme I am undertaking. My topic is: The Relationship between Knowledge levels on Self-care Practice and Occurrence of

Abortion among women of child bearing age admitted for post abortal care at Gwanda Gynaecology Ward. I request your participation in this study. Information obtained from this study is hoped to improve the quality of information on prevention of abortions.

Information you will provide will be kept confidential and no names will be written on the questionnaire. If you volunteer to be included in the study, the questions will take 15- 20 minutes. This information shall be stored in a secure place and shall not be stored with anyone. Participation is voluntary; you are free to withdraw from the study any time you feel like. Withdrawal from the study will not affect your care in any way. The study procedure has no presumed risks or harm to you. If you have any questions contact me at Gwanda Provincial Hospital P O Box 125 Gwanda. My mobile number is 0912636737.

Investigator's signature..... Date.....

Respondent's signature..... Date.....

Witness' signature Date.....

APPENDIX D

Consent Form [Ndebele]

Ibizo lami ngingu Idzai B Matsheza. Ngifunda eUniversity of Zimbabwe ngisenza Masters Degree ye Nursing Science. Ngidinga ulwazi olokugcwalisela izifundo engizenzayo. Isihloko sendaba sithi: Ubudlelwano phakathi kolwazi olutshiyeneyo

ngendlela yokuzinakekela ngokuswela[isisu] kubomama abangobe besazithwala belaliswe esibhedlela se Gwanda Gynaecological Ward njalo belaliselwe ukunakekelwa ngemva kokuswela isisu. Bengicela ukuthi ubengomunye walaba abazangiphathisa ngolwazi. Ulwazi esizaluthola sikhangelele ukuthi luzancedisa ukwengezelela elwazini olukhona olokuvikela ukuswela[isisu].

Ulwazi ozalupha luzagcinwa luyimfihlo njalo akulamabizo azabhalwa ephepheni lembuzo. Nxa uvuma ukuphathisa ngolwazi, imibuzo izathatha imizuzu engu15-20.

Ulwazi ozalupha alusoze lugcinwe ngomunye umuntu. Uyavunyelwa ukuphuma ekuphenduleni imbuzo nxa Ubona ungaphathekanga kumbe nxa ungasafuni. Ukwazi ukuthi loba uphumile akutsho ukuthi awusoze welatshwe.

Awusoze ufakwe engozini ngalokhu engizakubuza khona. N xa ufuna ukubuzisisa ungangidinga eGwanda Hospital kukheli ethi Box 125 Gwanda kumbe ufonele ku 0912636737

Investigator's signature..... Date.....

Respondent's signature..... Date.....

Witness' signature..... Date.....

