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Levels and Determinants of Voluntary Abortion in South Africa

A RESEARCH REPORT SUBMITTED TO THE SCHOOL OF SOCIAL SCIENCE, UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG,IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN THE FIELD OF DEMOGRAPHY AND POPULATION STUDIES FOR THE YEAR 2015

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Declaration

I, Ndivhuwo Patricia Rambau, hereby declare that this research report is my own original work. It is being submitted to the Faculty of Humanities and Social Sciences, University of the Witwatersrand, Johannesburg. It is submitted in partial fulfilment of the requirement for the degree of Master of Arts in the field of Demography and Population Studies. I declare that to the best of my knowledge it has not been submitted before in part or in full for any degree or examination at this or any other university.



02 November 2015

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Abstract

Background:

Voluntary abortion has been legal in South Africa since 1996. It is estimated that half of South Africa's pregnancies result in voluntary abortion. Though there are different attitudes and perceptions towards voluntary abortion it is evident that abortion is still a sought after practice among women of reproductive ages (15-49). The purpose of this study was to estimate the trends, differentials and determinants of voluntary abortion among South African women. The study was conducted to better understand the characteristics of South African women who wilfully terminate a pregnancy.

Methodology:

This study is a secondary data analysis of the 2010-2013 General Household Survey that was conducted by Statistics South Africa. A total of 9720 women aged 15-49 were analysed. Stata version 12 was used for the management and analysis of data. Univariate, bivariate and multivariate analysis was carried out to meet the objectives of the study. Descriptive statistics of the study population was conducted, the chi square test was utilised and lastly multivariate analysis using the Multinomial Logistic Regression producing relative risk ratios to examine whether an association was present or not.

Results:

According to the current study, the rate of voluntary abortion for 2010-2013 was 78 voluntary abortions per 10 000 pregnancies. The study went on to indicate the trend of voluntary abortion in the country, the country is characterised by fluctuating abortion numbers. Furthermore the study indicated the differentials between race and urban-rural residence in relation to voluntary abortion in the country. Women residing in rural areas were 0.4 times less likely to engage in voluntary abortion behaviour. Interestingly race, age, unemployment status, and place of residence were not found to be significantly associated with having a voluntary abortion. Having suffered any illness or injury was found to be significantly associated with voluntary abortion at a multivariate level where it was found

that women who had recently suffered from an illness were 0.09 times less likely to have a voluntary abortion.

Conclusion:

The current study has found that the determinants of voluntary abortion in South Africa include recently suffered any illness or injury. The study has found that it is important to understand the characteristics of woman who have voluntary abortion and abortion can be viewed as a form of adverse family planning in the country; the findings from the current study have further research and policy implications that can lead to the better understanding and implementation of voluntary abortion in the country. The Choice on Termination of Pregnancy act 92 of 1996 can be updated with relevant and recent information as to who is voluntarily choosing abortion. The results have further identified characteristics of women to be targeted for safe abortion to reduce incidents and risks associated with unsafe abortion practises.

Dedication

This work is dedicated to my late father Samuel Tseisi Rambau, who passed on to the other world when I was in my 3rd year of university. I know you are smiling down on me from the heavens; this was not only my dream but yours as well. You are living and you are watching.

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Chapter 1: Introduction

1.1 Background

Abortion rates are increasing around the world, especially for young women (Gil-Larcuz, 2011). In South Africa, abortion has been legal since 1996. A woman can therefore request for an abortion without medical reason before the 20th week of gestation. The rationale behind legalised abortions is to reduce unwanted pregnancies and the risks associated with illegal abortions in the country. There are different beliefs and attitudes towards voluntary abortion in the country thus making abortion somewhat of a sensitive topic which is characterised by a lot of under reporting in many countries including South Africa (Grimes et al., 2006). However, there remains the need to identify the national socioeconomic and demographic determinants of women who have voluntary abortions in South Africa, which is what the current study seeks to do. Furthermore differentials in voluntary abortion between population groups, wealth groups, urban-rural and so forth are also important to understand especially in the South African context. It is also clear that the issue of abortion is rooted in the unique context of South Africa and is a growing issue in regards to reproductive health of women in South Africa.

Historically, levels of fertility in South Africa were significantly high. Between 1950 and 1970 fertility was estimated to be at an average of 6 to 7 children per woman (Moultrie & Timæus, 2001). However, according to Potts & Marks (2001), between the period of 1980 and 1995 fertility dropped to an average of 4 to 5 children per woman. South Africa's fertility rate is among the lowest in the whole of sub-Saharan Africa (Moultrie & Timæus, 2001). The total fertility rate in South Africa was last measured at 2.46 births per woman in 2010 (Statistics SA, 2011). South Africa's fertility trends went unnoticed as a result of intellectual sanctions against the apartheid policies that were in place in the country prior to the 1990s (Moultrie & Timæus, 2001).

The decline in fertility has been attributed to different factors in South Africa such as policy changes in the country, as well as the increased use of contraception. Furthermore, another

reason for the significant decline of fertility in the country may be the notion of legalized abortion. Rossouw and Du Plessis (1999) argue that low fertility is generally associated with high levels of abortion combined with contraceptive use which may be applicable to the South African context. Although the effect of the practice on total fertility has not been clearly understood, literature in this regard suggests that in countries where legal abortions are common, there is low fertility (Rossouw & Du Plessis, 1999).

Prior to 1994, South Africa was governed by separate policies pertaining to the black and white populations in the country. Of paramount importance were the Group Areas Act, Prohibition of Mixed Marriages Act and the Bantu Education Act (Sanjani, 2002). Within this context, there were high levels of fertility especially amongst the black and coloured populations which instigated fear in the National Party government (Sanjani, 2002). The National Party feared that the increasing populations of blacks and coloureds would lead to a revolt since the white population were a minority group.

This led to the view that there would be more blacks than whites making it an unbalanced ratio between races. Added to this, it was implied that the increasing black and coloured population would bear a strain on the countries resources thus, the government felt the need to put in measures to restrict and reduce fertility growth especially amongst the black population (Sanjani, 2002). Contraception was primarily provided to black and coloured women in order to curb their increasing fertility rates; this was seen as an anti-natalist approach used by the apartheid government (Guttmacher, Kapadia, Water Naude & de Pinho, 1998). In other words, the government had a negative view towards births that occurred in the black and coloured populations thus, the anti-natalist approach was used to limit the population of the blacks and coloureds. It was believed that contraception was promoted for black and coloured women as a means to control population growth while white women were encouraged to engage in childbearing. It is evident that this then led to relatively high contraceptive prevalence in South Africa compared to other sub-Saharan countries (Mokgethi, Ehlers, Van der Merwe, 2006).

In the event of an unwanted pregnancy, a voluntary abortion was sought after. However, this was only done in a private setting and thus required financial capacity. Terminating a pregnancy was easier for white women as it was assumed that they had adequate resources but this placed black women in a predicament as they did not have the means to afford it as

they had lower paying jobs. Furthermore, black women had limited access to adequate health care and resources (Guttmacher et al., 1998). Hodes (2013) indicates that there was abortion apartheid in place. White women who were financially stable could have their abortions done through private gynaecologists. This resulted in a majority of black women resorting to unsafe abortions which were done by non-registered doctors or, were self-induced through the use of harmful methods. It is in this sense, that termination of pregnancy has been linked to the apartheid system (Guttmacher et al., 1998).

In 1973, legislation was drafted to regulate the availability of legal abortions, culminating in the 1975 Abortion and Sterilization Act. The new abortion legislature required approval from two physicians in order for an abortion to be conducted (Act No. 2 of 1975). Abortion was only allowed in cases where the pregnancy was a threat to the mother's physical and mental wellbeing or the pregnancy was a result of rape or incest. Due to these restrictions and limitations, the 1975 Act resulted in an increase in maternal mortality and morbidity due to incomplete or septic abortions that were conducted by women in unsafe conditions in order to get rid of unwanted pregnancies (Act No. 2 of 1975).

In 1994, the National Party government was dissolved when the African National Congress came into power and started redrafting the abortion law; thereafter the 1996 Choice of Termination of Abortion Act came into play. The newly revised act simply meant that any woman of any age or race could get an abortion upon request - granted the pregnancy is in the first trimester (Althaus, 2000). On February 11, 2005 the Choice on Termination of Pregnancy Act, 1996 was amended thus resulting in the Choice on Termination of Pregnancy Amendment Act, 2004 (Act No. 38 of 2004). The revised Act expanded access to abortions, allowed registered nurses, as well as registered midwives, to perform abortions up to the twelfth week of pregnancy. This is more liberal than the policies in place in other parts of the region.

In other African countries, abortion is permitted only on the basis that the pregnancy is harmful to the mother's life, is utilised to preserve physical and mental health of the expectant mother and if the pregnancy is a product of rape or incest. This applies to countries such as Zimbabwe, Nigeria and Botswana (Grimes et al., 2006).

Research on voluntary abortion in South Africa has been limited due to the shortage of analysis of quantitative national data on legal abortion, as well as cultural and religious beliefs (Jali, 2001). The stigma that is associated with abortion is abundant thus, leading to the underreporting of abortions in the country. What is known about the topic of abortion is that it is a legal procedure in the country and is a fundamental human right for all women. Furthermore, there is a large amount of history on the topic at hand as it is embedded in the apartheid era of South Africa. The Termination of Pregnancy Act of 1996 in itself has led to the reduction of septic and incomplete abortions (Mhlanga, 2003).

1.2 Problem statement

Women of reproductive ages (15-49), experience unintended and unwanted pregnancies. An unintended or unwanted pregnancy is defined as a pregnancy that was not planned for or desired by the couple at the time of conception (Ravendran, 2003). Although there has been a fall in global levels of unintended pregnancy, they are still very high in developing countries with approximately 4 in 10 pregnancies being unintended in 2008. In Southern Africa, 6 in 10 pregnancies were unintended and this is a very alarming figure (Kott, 2011).

The rates of unintended pregnancies in South Africa are a public health concern especially among the youth, as they are an indication that the youth are still engaging in unprotected sex (Mchunu, Peltzer, Tutshana & Seutlwadi, 2012). With increasing abortion rates in the country, this could be indicative of a problematic failure of family planning services in the country. This is because women who use effective contraception are less likely to experience unwanted pregnancy. In 1998, the South African Department of Health found that approximately 35% of young South African women had been pregnant or given birth by the age of 19 (Mchunu et al., 2012).

Research studies show that gender-based violence and oppression in sexual relationships are noteworthy influences of early unwanted pregnancies. It is also evident that early introduction to sexual intercourse is also a reason for unintended pregnancies (Macleod & Tracy, 2009). Furthermore, young women who have a partner who is 5 or more years older than their age are at greater risk of experiencing an unintended pregnancy. This is due to the fact that young women are not able to negotiate contraceptive use with an older sexual

partner. These pregnancies are often unintended or unwanted because the mothers are physically, mentally or financially incapable of taking care of a child (Macleod &Tracy, 2009).

Unintended pregnancies amongst women have severe health, economic, and social consequences (Gipson, Michael & Michelle, 2008). Unintended pregnancies result in induced abortion, unintended birth and miscarriages amongst women of reproductive ages (Singh, Sedgh, Henshaw, Bankole & Drescher, 2010). Furthermore, unintended pregnancies put women's lives in danger which consequently leads to increased levels of maternal mortality, as about half of all unintended pregnancies end in abortion which may be unsafe or illegal at times. Added to this, unintended pregnancies place women at risk of maternal death due to unhealthy behaviours displayed through pregnancy (Biddlecom, 2008). In some instances, unintended pregnancies lead to unintended births, which sometimes result in the abandonment or neglect of the child (Maluleke & Hadzhi, 2013). As a result of this, strain is placed on government, as well as Non-Governmental organizations (NGOs) to care of and provide for these children.

Legalised, voluntary abortion is used to reduce unintended pregnancies amongst women of reproductive ages. According to Webb (2000), legal abortions carry fewer risks for women however, it is established that many women undergo illegal or unsafe abortions which have dire consequences including sterility and disability. Even in a more liberal country, like South Africa, the legality of abortion does not always result in women accessing the services offered by the primary health care system. In 2008, more than 97% of abortions in Africa were unsafe (Population Reference Bureau, 2011). An illegal or unsafe abortion is defined by the World Health Organisation (WHO) as "the terminating of an unintended pregnancy by individuals who lack the adequate qualifications or in an unconducive environment which does not reach the required medical standard" (World Health Organisation, 2014).

In a country such as South Africa that is plagued with high unemployment rates, as well as high levels of poverty, this is a very important issue to address with regards to unintended pregnancy and ultimately abortion. It is evident that the socio-economic status of most women in South Africa is not well off as there are still significant inequalities between men and women. Women in South Africa are still affected by high levels of unemployment, poverty, as well as gender-based violence (Geldenhuys & Delange, 2012). Women who undergo unsafe abortions in most instances are desperate and feel they have no alternative

approach (Haddad and Nour, 2009). Often women are in a situation that makes them unwilling to have the child due to the fact that they do not have the financial means to take care of the child (Hess, 2007). Some women fail to get a safe abortion due to the fear of judgement by health care workers in hospitals and clinics; moreover many women do not know that they have the right to an abortion (Sanjani, 2002).

Unsafe abortions in some instances may result in infertility, sterility, as well as maternal mortality. The WHO reports that in sub-Saharan Africa unsafe abortions are responsible for between 10 and 50 percent of all maternal deaths. The WHO further reported that almost 47 million women die due to unsafe abortions whilst millions are left disabled around the world (World Health Organisation, 2014). In South Africa, unsafe abortions claim the lives of many women and, it is estimated that around 50% of all abortions carried out in the country are illegal (Department of Health, 2011). According to the South African Department of Health (2011), 25.7% of preventable maternal deaths were due to unsafe abortions between 2005 and 2007 and mortalities associated with unsafe or incomplete abortions have risen by 4.6% between 2004 and 2007. The most recent estimates are of 269 maternal deaths per 100 000 live births for 2010 due to pregnancy related complications (Statistics SA, 2013). It is evident that the increase in maternal mortalities leaves a burden on government to take care of orphans and has consequently led to an increase in child-headed homes.

Furthermore, there may be complications with regards to any future pregnancies. These would include stillbirths or miscarriages (Webb, 2000). The issue of abortion needs to be addressed in an adequate manner and women need to be given the correct information in order to reduce complications and maternal deaths. This is also acknowledged in the Millennium Development Goal number five; which is to reduce maternal mortality (United Nations, 2015).

It is evident that the government is working hard to deliver family planning implementation to women of reproductive ages in South Africa; however, there is an apparent increase in unintended pregnancies due to the misuse or non-accessibility of contraception. This therefore, results in women opting for voluntary abortion. Despite the efforts by government to offer free voluntary abortion services, it is not the easiest of services to render. It can be argued that the subject of voluntary abortion has been implemented

through ill-informed policy thus, making voluntary abortion services hidden and not giving women the required information on the process of termination of pregnancy.

It is apparent that there are numerous challenges with regards to termination of pregnancy. Such challenges include fear of ill treatment by facility staff and lack of confidentiality in some clinics and hospitals (Bateman, 2011). Some women report that there are long waiting lists in government hospitals and lastly there is a sense of uncertainty surrounding the right to a voluntary abortion, as well as access to and availability of services mostly in rural areas (Jacobs and Hornsby, 2014). These challenges can be addressed with studies that look at trends, differentials and determinants of voluntary abortion.

Due to the causes and consequences of having an unsafe abortion, there is a need for a reduction in this practice across the continent. In South Africa specifically, where abortion is legal, there should not be any cases of unwanted pregnancies and unsafe abortions. In order to curtail these events, research can identify the characteristics of women who undergo voluntary abortions in an effort to better understand who is at risk of unwanted pregnancy and unsafe abortions.

1.3 Research Questions

1.3.1 General question

What are the levels and determinants of voluntary abortion in South Africa?

1.3.2 Specific research questions

- What are the levels of voluntary abortion in South Africa?
- What are the socioeconomic and demographic determinants of women who undergo voluntary abortion in South Africa?

1.4 Research Objectives

1.4.1 General Objective

- To identify the levels and determinants of voluntary abortion among South African women (2010-2013)

1.4.2 Specific Objectives

- To examine the levels of voluntary abortion in South Africa
- To determine the socioeconomic and demographic determinants of women who undergo voluntary abortion.

1.5 Justification or significance of the study

Abortion in South Africa, as in the rest of the world, is culturally and religiously condemned thus, creating a great deal of controversy over the issue. It is apparent that in most cultures and religions abortion is often seen as an immoral act, if not a sin (Jali, 2001). This, therefore, leads to the stigmatisation of abortion and the women who undergo the procedure thus, resulting in many women feeling judged (Hodes, 2013). Before the 1950s, abortion was hardly publicly spoken about in the Western world and was viewed as taboo in African societies. The practise of abortion was linked to secrecy, shame and stigma and was discussed behind closed doors in the private realm. Any discussions about abortion practices were conducted mainly among medical institutions and monitored closely by the church (Hodes, 2013).

Existing studies on abortion have primarily focused on the attitudes and perceptions of it as a practice. A study on the attitudes of primary health care givers towards abortion in hospitals indicated that most nurses and midwives were of the view that it is not their job to conduct abortions (Mokgethi, Ehlers & Van der Merwe, 2006). As the act is seen as killing an innocent soul and hence, was unacceptable and unjustifiable under any circumstances. Often there is a stigma attached to women who undergo abortions as the health care worker may have the view that the practice is immoral and wrong (Walker, 2007).

However, due to unwanted pregnancy, abortion remains a sought-after practice. The uptake of voluntary abortion has increased over the years in South Africa, as well as the rest of the world. It is in this sense that attitudes and perceptions that individuals have towards voluntary abortion do not always play a role in changing behaviour. It is estimated that 46 million pregnancies result in induced abortion each year worldwide (Sedgh, Singh, Henshaw, Bankole, 2012). While there is a great deal of debate on the morality of abortion, it is clear

that some women will not permit pregnancies to result in a live birth and will obtain an abortion irrespective of societal approval (Sedgh et al., 2012).

Voluntary abortion is used to reduce unintended pregnancies amongst women of reproductive ages. The option of termination of pregnancy is a right to every South African woman but, due to the shame and stigma surrounding the practice, this fundamental human right is often overlooked (Osman & Thompson, 2014). This study taps into a very sensitive area of women's autonomy and may help in educating women on the issue of voluntary abortion. This is important because The Choice on Termination of Pregnancy Act of 1996 is robust on the right of every woman, irrespective of age, to a safe abortion. However, at least 30 percent of South African women believe that abortion is still illegal, which is a major limitation to women pursuing safe abortions (Osman & Thompson, 2014).

There is a necessity to conduct research that identifies the trends, differentials and determinants of women who seek abortions. It is evident that abortion is a social element and needs to be given attention that can possibly result in proper action. When it comes to rendering a service to the public, it is important for the government to be aware of whom the service is being rendered to and what their characteristics are. This study seeks to identify the characteristics of women who are accessing voluntary abortion services.

In obtaining this information, different abortion programmes can be improved by the Department of Health that will advance abortion services in government hospitals and clinics. Furthermore, information can be directed towards women on the issue of abortion and also break the cycle of silence, shame and stigma around the topic of abortion. This will help women realize that there is an alternative option when there is an unintended pregnancy. Voluntary abortion gives women autonomous power over their reproductive health, the same way that contraceptive use does.

Moreover, there is no official termination of pregnancy register in South Africa that records adequate statistics of the overall practice in the country. It is, in this sense, that more often than not, quantitative research is not viable due to the lack of reported statistics. It also becomes difficult for health care providers and the Department of Health to identify the complications that may arise among women who seek a voluntary abortion.

The study can raise public health awareness which will hopefully lead to safe abortion seeking behaviour. Furthermore, the study can also serve as a guide for more in-depth qualitative studies focusing on voluntary abortion and the post-abortion experiences of women in the country. The following study will therefore, be able to bring a deeper understanding on the issue of abortion by identifying the characteristics of women who undergo a voluntary abortion thus, de-stigmatising the practice and ensuring that the lives of women are saved and that their reproductive health is ensured.

Research on voluntary abortion can, therefore lead to the improvement of reproductive health and abortion policies namely the 1996 Choice of Termination of Pregnancy Act. The act can be updated with relevant and recent information as to who is opting for voluntary abortions and who is not. With that information, the research can aid in rolling out termination of pregnancy services which are better set to the needs and requirements of all women in South Africa.

South Africa has one of the most liberal abortion policies which allow women to terminate a pregnancy. Other countries that have liberal abortion policies in Africa include Tunisia and Cape Verde (Guttmacher et al., 1998). When the Choice on Termination of Pregnancy Act was implemented on the 1st of February 1997, South Africa became the first country in Sub-Saharan Africa in which women were given the right to obtain an abortion on request during the first 12 weeks of pregnancy (Althaus, 2000). In most African countries, the termination of pregnancy is forbidden regardless of the mother's state of health or any other reason, Senegal and Angola are typical countries that prohibit abortion (Althaus, 2000). The context of South Africa and its liberal abortion policies make it a perfect study site for the trends, differentials and determinants of voluntary abortion.

1.6 Definition of Terms

1.6.1 Voluntary Abortion:

A voluntary abortion is the removal of an embryo or foetus from the uterus to end a pregnancy (World Health Organisation, 2014).Voluntary abortion can be used to refer to a number of different ways in which pregnancy is lost. However, most individuals refer to voluntary abortion as the intentional termination of pregnancy. The abortion is termed

voluntary because it is not coerced on the pregnant woman for any reason and is completely out of choice.

1.6.2 Unsafe Abortion:

This is defined as a procedure for terminating an unwanted pregnancy either by persons lacking the necessary skills or in an environment lacking minimal medical standards or both (World Health organisation, 2014).

1.6.3 Unintended Pregnancy:

A pregnancy that is mistimed, unplanned, or unwanted at the time of conception (Santelli, Rochat, Hatfield-Timajchy, Gilbert, Curtis, 2003).

1.6.4 Medically Induced Abortion:

A medically induced abortion is a type of abortion that involves taking a pill or receiving an injection of medication to terminate a pregnancy. This is done without any type of surgery or mechanical entry into the uterus (World Health Organisation, 2014).

1.6.5 Live Birth:

A live birth refers to the complete expulsion or extraction of a baby from its mother, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life (World Health Organisation, 2014).

1.6.6 Termination of pregnancy:

Termination of pregnancy means removal or expulsion of the developing foetus from the mother's womb before the foetus reaches the age of viability (World Health Organisation, 2014).

1.6.7 Maternal Mortality:

According to the World Health Organisation, a maternal death is the death of a woman who is pregnant, or within 42days of termination of pregnancy irrespective of the gestation of the pregnancy, not from an accident the death was aggravated by the pregnancy (World Health Organisation, 2014).

1.6.8 Spontaneous Abortion:

A spontaneous abortion is medically known as a miscarriage (World Health Organisation, 2014). A spontaneous abortion is the involuntary loss of a pregnancy before it has

completed 28 weeks of gestation. A spontaneous abortion is also the most common adverse pregnancy outcome (World Health Organisation, 2014).

1.6.9 Surgical and Medical Abortion

A surgical abortion is a procedure that ends a pregnancy by removing the foetus and placenta from the mother's womb. Surgical abortion uses a vacuum to remove the foetus and related pregnancy material from the uterus. A medical abortion on the other hand refers to the use of medication to induce abortion (World Health Organisation, 2014).

Chapter 2: Literature review

Review of relevant literature

This section represents a critical review of the literature, theoretical and conceptual framework of the study. It is evident that a number of qualitative studies have been conducted regarding the subject of abortion. Many of the qualitative studies have highlighted only the attitudes and perceptions that health care workers and women of reproductive ages hold in regards to the practice. Many of the studies have either focused on the health care workers or young women in tertiary institutions. From the literature, it is established that South Africa has a high burden of unsafe abortions that lead to high levels of maternal mortality in the country.

Abortion is a very contested and sensitive issue around the world. There is a great deal of controversy on the topic of abortion and is a practice that is frowned upon in many societies due to the moral and religious connotations associated with it (Jali, 2001). A voluntary abortion, also referred to as termination of pregnancy is defined as the expulsion of a foetus from the uterus. This may either be spontaneous or induced. An induced abortion occurs as a result of intentional interference to purposefully end the pregnancy (Jali, 2001). This section seeks to explore the topic of abortion in the country of South Africa further.

2.1 Overview of voluntary abortion

2.1.1 Overview of voluntary abortion globally

An induced abortion is generally a medical procedure and, in most instances, is conducted by a medical professional. In most regions of the world, abortion is legal, including countries such as South Africa, United States of America, as well as Ghana to mention a few. According to Morroni, Myer and Tibazarwa (2006), abortion is termed as a time restricted health care service; this is due to the fact that a woman may only request to have an abortion during the first 12 weeks of gestation - especially if the pregnancy is being terminated for non-life threatening reasons.

Abortion is used to reduce unintended or unwanted pregnancies amongst women of reproductive ages. It is reported that 42 million abortions are performed annually worldwide, and of those, only 20 million are considered to be safe (Wheeler, Zullig, Reeve, Buga & Morroni, 2012). Sedgh et al., (2012) go on to indicate that between 2003 and 2008 there has been a stall in the abortion rate worldwide. However, new cases of abortions are constantly being reported. According to Marston and Cleland (2003), abortion is said to be the most frequently used form of birth control across the world. However, there are alternative views as Mhlanga (2003) argues that abortion should not be used as a form of contraception. Marston and Cleland (2003) go on to explain that there are two major types of abortions, namely the medical abortion and the surgical abortion.

Several studies conducted around the world indicate that a woman's likelihood of having an abortion is higher if she lives in a developing region. In 2008, an estimated 29 abortions per 1,000 women aged 15–44 years were in developing countries, compared to 24 per 1,000 in the developed world (Hess, 2007). According to Sedgh, Singh, Henshaw, Bankole (2012), in Europe almost 30% of pregnancies result in abortion thus, indicating that abortion is a practice that is utilised regardless of how developed a country is. A greater proportion of pregnancies end in abortion in Eastern Europe than in the rest of the region. Western Europe, Southern Africa and Northern Europe have the lowest abortion rates in the world, at 12, 15 and 17 abortions per 1000 women respectively (Sedgh et al., 2012).

Where abortion is allowed on a legal basis, it is usually safer and where it is highly limited, it is normally unsafe. In developing countries, liberal abortion laws are linked with fewer harmful health consequences of unsafe abortion than are highly restrictive laws. A study conducted in Nepal, where abortion was made legal in 2002, established that there was an evident decline in abortion-related complications (Sedgh et al., 2012).

2.2.2 Overview of voluntary abortion in Sub-Saharan Africa

The annual number of induced abortions in Africa rose between 2003 and 2008, from 5.6 million to 6.4 million respectively. Thirteen percent of all pregnancies in Africa ended in an abortion in 2008 (Hussein, 2012). A study conducted in Gabon indicated that women who had an unintended pregnancy were filled with fear of their parents' reaction towards the

pregnancy and were afraid of rejection and banishment from the homestead. In some cases, the partner denied paternity thus, the fear of shame comes into place (Hess, 2007).

Abortion has been legal in South Africa since 1996, however it seems that other African countries have not followed suit. Such countries include the Democratic Republic of Congo, Kenya, Gabon and Lesotho to name a few (Hussein, 2012). It is apparent that countries that have very restrictive abortion laws have very high levels of maternal mortality that are often caused by high levels of unsafe abortion. A study conducted in Kenya indicated that unsafe abortions are very common in the country thus, leading to increased levels of maternal mortality and morbidity (Hussein, 2012).

2.2.3 Overview of voluntary abortion in South Africa

The legalisation of abortion in South Africa was seen by the government as a way of curtailing illegal, unsafe abortions. Over the years, the legislation has received a lot of criticism from the general public, organisations and religious groups. Many of the individuals belonged to religious institutions, such as Christian and Muslim churches, that were against the legislative change (Sanjani, 2002). Abortion, for many individuals, is seen as a very sensitive issue and women who are associated with abortion are often stigmatized. The South African Social Attitudes Survey conducted in South Africa between 2003 and 2006 indicated that 9 out of 10 South Africans were of the view that abortion is immoral and wrong (Mncwango & Rule, 2006). According to Jali (2001), different religions in South Africa have different opinions about when a soul is present in a foetus and some are of the belief that the soul is present at conception. This makes abortion a morally unacceptable practice (Jali, 2001).

The South African law, however, indicates that a woman is allowed to request for a termination of pregnancy in the first trimester (first 12 weeks) of her pregnancy. However, there are still women who are not aware of abortion law in South Africa and, many studies have indicated that there are certain groups of women especially those in rural areas who are not aware of their right to termination of pregnancy (Varkey & Fonn, 2000).

More than 400 000 legal abortions were performed in South Africa between 2008 and 2010, according to the Department of Health (2011) and the Marie Stopes Clinic, a non-governmental clinic with 37 branches in towns and cities around the country.

According to the Department of Health (2011), 77,771 legal abortions were performed in South Africa in 2011, which indicated a 31 percent increase since 2010. The province with the highest abortion rate was reported to be the Free State, where 21,994 legal abortions recorded in 2011, followed by 12,138 in the North West and 11,239 in Gauteng (Department of Health, 2011).

The termination of a pregnancy beyond 12 weeks and if approaching 20 weeks is only offered if: there are serious birth defects for the foetus or; the mother's physical health is at stake; or a low socioeconomic status; or where there are reports of rape and incest. The time strictness of abortion can pose problems or be viewed as a disadvantage for some women, in the sense that they may discover that they are pregnant after the 12 week gestation period, this then leads to the accessing of unsafe abortions in order to terminate second trimester pregnancies (Morroni et al., 2006).

It is evident that there are certain factors that contribute to the decision to terminate a pregnancy and it is important to understand what these determinants are. Understanding the determinants of abortion can aid in creating positive reproductive health programs, as well as adequate abortion care.

2.2 Determinants of voluntary abortion

It is evident that in most cases, there are certain determinants that lead women to the decision to abort a pregnancy. These determinants may be either socioeconomic or demographic. Different studies on abortion have been conducted across the world, as well as in South Africa. The most important determinant that leads to a voluntary abortion is unintended pregnancy. Despite the decline in unintended pregnancies around the world, there have been a significant number of pregnancies that remain unintended especially in the developing world. An unintended pregnancy refers to a pregnancy that was either mistimed or not intended at the time (Santelli et al., 2003).

Most often there are many causes of unintended pregnancies in different societies. One of the most cited reasons is the unmet need for contraception in most African countries. For example, in Ethiopia and Uganda, there are a high number of unintended pregnancies due to the lack of contraceptive use (Sedgh et al., 2012). A projected 215 million women in the

developing world have an unmet need for modern contraceptives. This implies that these women want to avoid or delay a pregnancy but, do not have access to effective contraception. It is also established that 82% of unplanned pregnancies in developing countries occur mainly among these women. Furthermore, 140 million women in developing countries were not using contraception in 2008 (Sedgh et al., 2012).

It is in this sense, that unintended pregnancy is often a result of failed contraceptive use, as well as the lack of knowledge of different methods of contraception (Sedgh et al., 2012). Many studies have indicated that there are barriers to women accessing contraception thus, resulting in high levels of unintended pregnancy. The findings from a study conducted in Kenya found that there was a high prevalence of unintended pregnancy within the study population. Furthermore, the study specified that young and unmarried women, regardless of their education level and socioeconomic status had a higher likelihood of facing unintended pregnancy (Ikamari, Izugbara & Ochako, 2013).

Kott (2011) reviewed the trends and patterns of unintended pregnancy in both developed and developing countries from 1998- 2008. It was discovered that the global pregnancy rate had decreased for both developed and developing countries. Universally, 86 million pregnancies were unintended with most of them being reported in developing countries and, of those, 41 million resulted in abortion (Kott, 2011).

Africa has the highest level of unintended pregnancies whilst Europe is observed to have the lowest. It is evident that 4 in 10 pregnancies worldwide were unintended in 2008. Africa, however, is reported to have the highest burden of unintended pregnancies, where 6 in 10 pregnancies were unintended (Kott, 2011).

In 2003, 47% of all pregnancies were unintended in South Africa. Different studies have been conducted on unintended pregnancy in South Africa and it becomes clear that between 1998 and 2003 there has been an average of 220 430 unintended pregnancies per year (Seutlwadi, 2012). A study conducted in 2010 indicated that the prevalence of unintended pregnancy is at 61% in South Africa (Bello, Kielkowski & Heederik, 2010). This is a 14% increase from the figures provided in 2003.

A major contribution to the high levels of unintended pregnancies in South Africa is the high number of teenagers becoming pregnant in the country. According to a study conducted by

Mpanza and Nzima (2010), approximately 41% of teenagers are engaging in sexual activity with the youngest being teenagers of 14 years old. In these circumstances, it is evident that there is a great public health concern, especially as youth are at a higher risk of contracting HIV/AIDS and are considered unable to maintain the health of the infant as well as themselves.

Unintended pregnancy results in harsh consequences for women and their families (Gipson, Michael & Michelle, 2008). Moreover, these consequences have a negative effect on the health of women, which often results in high levels of maternal deaths, and also affects their families in a negative way. One of the most significant consequences of unintended pregnancies is that they often lead to abortion where it is observed that half of unintended pregnancies result in induced abortion (Kott, 2011).

The determinants of abortion are very important to understand as they give a clear indication of why women choose to have a voluntary abortion. A study that was conducted in Spain highlighted that the most important determinant of voluntary abortion in the region was mostly the socioeconomic background of the women. Women of lower socio-economic status were found to have more unplanned pregnancies than well-educated women (Gil-Lacruz, Gil-Lacruz & Bernal-Cuenca, 2012).

However, the study found that women from disadvantaged socioeconomic conditions, and did not live with their partners at the current time of the pregnancy, were more likely to carry the pregnancy to term. This was due to the fact that they had difficulties in accessing abortion services. Furthermore, it was discovered that women would view their economic status as an additional problem and not as a restraint on childbearing (Gil-Lacruz et al., 2012).

Studying the determinants of abortion in African countries is also very important, especially as most women who live in African regions are often viewed as a high-risk population that occupy rural areas that do not have proper health care services. Furthermore, it is highlighted that the abortion rates in West Africa are very high (Mote, Otupiri & Hindin, 2010). This is very alarming, as most West African countries prohibit the practice of abortion; such countries include Guinea-Bissau and Senegal. A cross-sectional study conducted in Ghana indicated that the factors that influence induced abortion in Ghana

include marital status, level of education, as well as women's age. One of the most significant findings of the study was that women with lower educational attainment were less likely to have an induced abortion (Mote et al., 2010).

Often issues around patriarchy and low levels of women's autonomy play a role in women's abortion-seeking behaviours. A qualitative study conducted in Gabon by Hess (2007) indicated that many women in the region undergo an abortion because women feel that they do not have adequate financial support for a child at that moment in time. It is clear that children are often viewed as an expensive commodity. Other factors that influence the choice of abortion is when the partner denies paternity of the infant at that given time which results in the fear of the parents' reaction to the situation at hand. Furthermore, in instances that contraception has failed, many of the women indicated that they feared that their boyfriends or partners would accuse them of infidelity (Hess, 2007).

A study conducted by Carter (2009) indicates that abortion attitudes may differ by race. The study that was conducted focused mainly on the attitudes that different races have towards voluntary abortion in the United States. White females had greater liberal abortion attitudes than black women.

South Africa is viewed as one of the most advanced countries when it comes to recognising sexual and reproductive health rights. Abortion has been legal in South Africa since 1996 in the country and the policy was amended in 2004, thus showing great progress on a legislative front. An abortion is legal in South Africa on the grounds that it is terminated within the specified time frame. Most studies that have been conducted on the subject of abortion in South Africa have followed mostly a qualitative route often looking at the attitudes towards abortion among the general South African population. A study conducted among university students in 2009 indicated that there is a positive attitude amongst female students when it comes to the availability of abortion services for women in South Africa (Patel & Kooverjee, 2009).

Furthermore, studies have also been conducted on the attitudes of primary health care givers, individuals who are required to render the service of abortion in clinics and hospitals. A study conducted in the North West Province indicated that many of the nurses held a negative attitude towards termination of pregnancy. This may be due to the different

cultural and religious backgrounds that nurses come from. It was found in the study that the service should be reserved for special cases such as conception through rape, incest, and deformation of the foetus or the mental instability of the mother (Mokgethi et al., 2006). The nurses went on to explain that they felt that a woman should not be permitted to have more than one abortion. Issues of fertility desire also came up and it was indicated that the nurses felt that women who had no children should be barred from the service whereas women who may have too many children may be allowed to obtain the service. Furthermore, the study indicated how nurses who had to offer the service would often feel guilty or traumatised after the abortion procedures (Mokgethi et al., 2006).

It is evident that when it comes to administering abortion services, health care providers are vital as they can assist in reducing morbidity, as well as maternal mortality. A study conducted in the Limpopo Province of South Africa demonstrated that often young girls and women find it difficult to attain information on abortion services and often this is hindered by healthcare workers and the general attitudes of the public. Furthermore, women also fear vengeance from healthcare workers who do not approve of the practice (Maluleke & Hadzhi, 2013).

Other studies have gone on to show that there is a failure to access abortion services because of the reluctance of health care workers to perform the procedure. However, the attitudes of the health care workers are not the only barrier to accessing the service but, other elements such as the demand and the supply of abortion services. Often health care workers are overwhelmed with high numbers of patients in clinics and hospitals (Harries, Lince, Constant, Hargey & Grossman, 2012).

Due to the stigma and shame associated with voluntary abortion, many young women often feel stigmatised as a result of the different views of the practice by different cultural and religious views. Badenhorst (2005) goes on to indicate that even though abortion is observed to be morally wrong, there are women who terminate their pregnancies and in most instances their morals would influence whether they would feel guilty after the procedure. Most African cultures indicate that if a woman undergoes an abortion, she is contaminated and needs to undergo certain rituals in order to be cleansed and return to a state of purity (Mokgethi et al., 2006).

It is evident that there are many factors that lead to the stigmatisation of voluntary abortion and this influences the abortion-seeking behaviours of women. Many young women often feel judged when having to undergo the procedure. This then leads to women accessing illegal and unsafe abortions. Most importantly the current section has indicated that there are a number of determinants that may lead a woman to have a voluntary abortion. These include access to services, socio-economic background of women, and level of education, women age and marital status.

2.3 Unsafe abortion

The World Health Organisation (2014) defines an unsafe abortion as a process of terminating an unwanted pregnancy either by individuals lacking the required skills or in an environment lacking adequate medical standards or in some instances both. Every year about 19-20 million unsafe abortions are conducted by individuals who lack adequate skills (Grimes et al., 2006). When an abortion is conducted in an acceptable environment with qualified personnel, it is very safe and can lead to fewer fatalities. Unsafe abortions are often the leading cause of maternal mortality across the world, more especially on the African continent.

Hussein (2012) indicates that out of the 6.4 million abortions performed in 2008, only 3% were conducted in safe conditions. It is estimated that 125, 000 unsafe abortions are conducted in South Africa every year (Wheeler et al., 2012). It then becomes a great commitment to the Department of Health to implement safe abortion initiatives in order to improve the health of women and young girls (Mhlanga, 2003).

An estimated 529,000 girls and women die from pregnancy-related causes almost every year with most of them occurring in the developing world. About 13 percent of these deaths were attributed to unsafe abortions. A study projected that unsafe abortions were responsible for nearly one-third of maternal deaths in West Africa, and the WHO reports that in sub-Saharan Africa unsafe abortion is responsible for between 10 and 50 percent of all maternal deaths (Population Reference Bureau, 2005). According to Mhlanga (2003), the maternal mortality rate is very high among the African population in South Africa.

Besides increased levels of maternal mortality, there are other consequences of unsafe abortions. In most instances, an unsafe abortion may lead to involuntary sterility and injuries among women. Women who cannot afford or cannot access these services may try to abort the pregnancy themselves, or may turn to unskilled practitioners including; traditional or religious healers, homeopaths, and herbalists who use a variety of methods (Population Reference Bureau, 2005). Traditional methods often include the mixing of different herbs that are often detrimental to young women. Furthermore, it is found that young women may also resort to household chemicals such as bleach or ammonia which are taken orally or are used to flush the vagina. Others may turn to physically harming themselves with different activities such as jumping from high places (Population Reference Bureau, 2005).

Unsafe abortions primarily affect young women of reproductive ages. According to the Department of Health (2011), most of the victims of unsafe abortions in South Africa are young teenage females who are engaging in sexual activity without making use of any form of contraception. It is in this sense, that abortion is used as a contraception which has negative results on their health, as well as their fertility. Bankole et al. (2007), highlight that studies have indicated that abortion levels are often related to contraceptive use patterns. It is evident that when contraception is widely available, unintended pregnancies and abortion rates decrease.

Often if women cannot access government hospitals or clinics, they are advised to terminate pregnancies at safe abortion clinics that are more private and offer the services at an increased fee. It is in regard that many young women are then misguided and believe that they have no other choice but to resort to an unsafe abortion often due to financial restraints. In addition, young woman may also purchase over-the-counter abortion pills and attempt to drink them by themselves without any prescription from a doctor or medical personnel. These abortion pills are often obtained through the illegal abortion providers (Mpanza & Nzima, 2010). A study conducted by Shahbazi (2012) in Iran indicated that women who choose to have an illegal or unsafe abortion do so as a result of social pressure.

Voluntary abortion is often carried out by women of reproductive ages with an intention to terminate an unwanted pregnancy. According to a study conducted in the Western Cape, South Africa among 831 sexually active women, it was found that there is an unmet need

among women of reproductive ages of information on safe abortions, this then leads to illegal abortions which have very harsh consequences (Marroni et al, 2006).

Traditional healers are often viewed as an alternative abortion service. Generally, about 80% of the South African population makes use of both Traditional healers and Western healthcare providers (Mchunu & Bhengu, 2004). Mokoena and Van Wyk (2013) indicate in their study that was conducted in Mamelodi in the Gauteng province that traditional healers do admit to rendering abortion services but, only in the first few weeks, after that, the traditional healers indicate that the termination is no longer safe. This adds more to the dimension of unsafe abortion within South Africa.

In conclusion, the above section has focused on various literatures that are related to voluntary abortion. It is evident that different studies have been conducted on the subject. Generally, studies concerning abortion have explored the levels, trends, attitudes, as well as the determinants of abortion. When looking at studies conducted in South Africa, it is evident that most studies have placed their focus on the attitudes and perceptions of abortion among South Africans with the use of sub-populations and not focusing on the national population.

Literature on abortion demonstrates that there are high levels of unintended pregnancies, which are often seen within developing countries. These high levels are attributed to the unmet need of contraception and the failure of contraceptives which, in turn, result in the seeking of an abortion. However, due to the stigma and negative connotations associated with abortion, many women resort to unsafe or illegal abortions which have negative consequences for maternal health.

2.4 Theoretical framework

This study was based on the framework for analysing the determinants of maternal mortality, as well as the Health Belief Model. The Health Belief Model was developed in the 1950s by a group of U.S. Public Health Service social psychologists who wanted to explain why so few people were partaking in programs to prevent and detect disease (Hochbaum, Rosenstock & Kegels, 1988). The Health Belief Model is a psychological model that attempts to describe and predict health behaviours. This is done by highlighting the attitudes and beliefs of individuals. The Health Belief theory is mostly used in health promotion and health

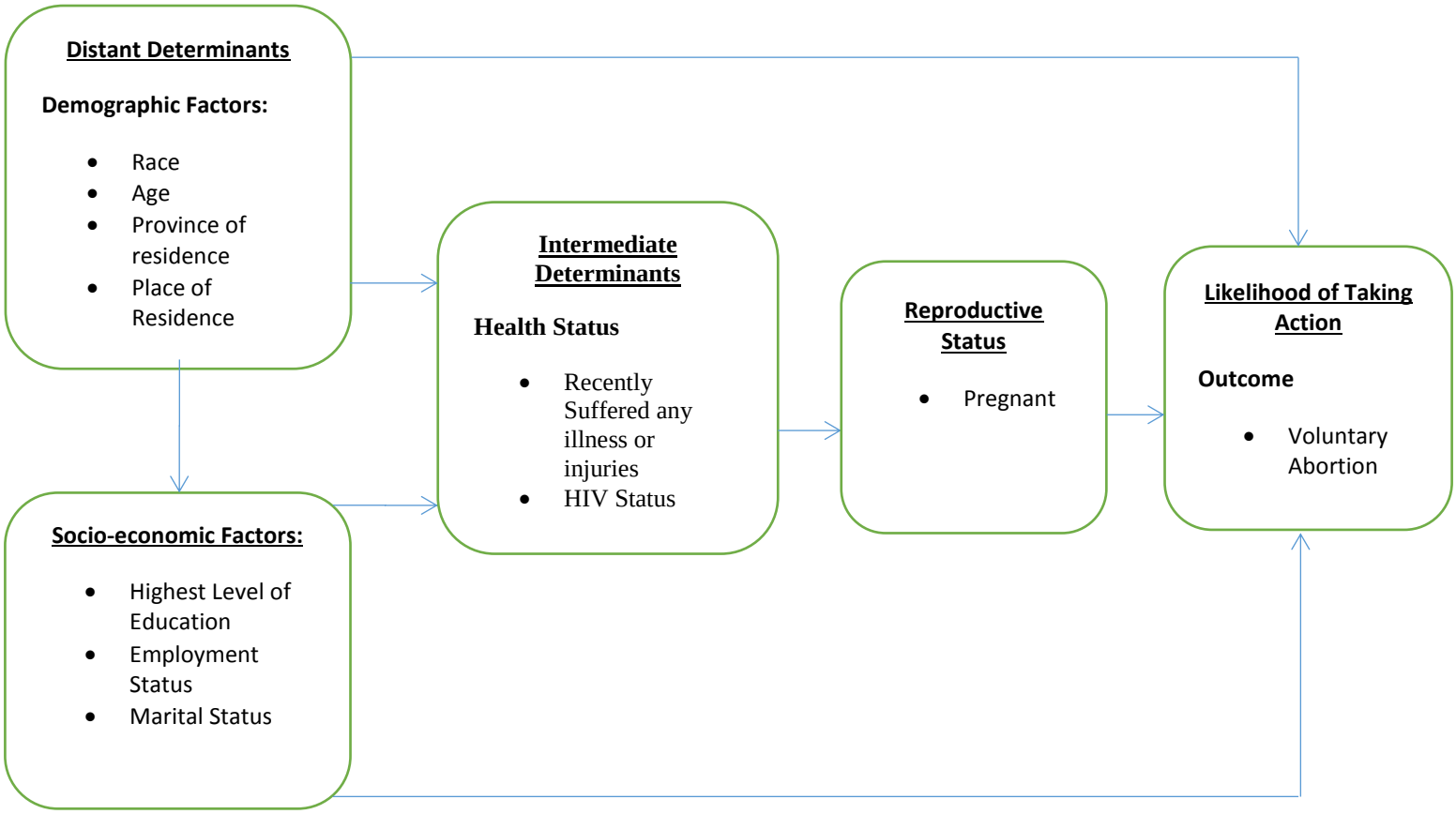
education (Hochbaum, Rosenstock & Kegels, 1988). The original model suggests that health behaviour change occurs when an individual realises that there is reason to acknowledge a health concern. The individual also understands that they may be at risk of a negative health outcome and there is the realisation that there are benefits in addressing the health concern. The model comprises of three components namely; Individual Perceptions, Modifying Factors and Likelihood of Action (Hochbaum, Rosenstock & Kegels, 1988).

The framework for analysing the determinants of maternal mortality is organised around three stages of the process of maternal mortality. The framework postulates that a woman must be pregnant and experience some type of complication before her death is defined as a maternal death (McCarthy & Maine, 1992). The outcome of a woman's death is often influenced by five sets of determinants including the health status of the woman, reproductive status, access to health care services, health care behaviour, as well as other unknown factors. Lastly, the framework also includes socio-economic and cultural factors. The framework adopts different aspects of Bongaarts, Mosley and Chen and Davis and Blake models (McCarthy & Maine, 1992).

It can be noted that there is no framework or model for understanding the determinants of voluntary abortion. Therefore, the study made an amendment of both the Health Belief Model, as well as the Framework for Analysing the Determinants of Maternal Mortality mostly because the study focused on abortion which can be said to be health behaviour. The factors identified in the McCarthy and Maine framework were women's socio-economic status and the outcome of pregnancy that were adopted in the study. The study proposes that voluntary abortion be incorporated as the outcome of the framework. The factor identified in the Health Belief Model that was applied to the study was the likelihood of taking action which is motivated by the perceived benefits of embarking in positive health behaviour.

2.5 Conceptual framework

Figure 2.1 Framework for analysing the Determinants of Voluntary Abortion



Adapted from the Framework for Analysing the Determinants of Maternal Mortality (McCarthy & Maine, 1992) and the Health Belief Model (Rosenstock et al., 1982)

Figure 1 shows the conceptual framework of the study. The distant determinants include demographic factors, as well as socio-economic factors. These factors influence the health status and reproductive status of a woman. Under the reproductive status of a woman, being pregnant may lead to an outcome of a voluntary abortion.

2.6 Hypothesis

The hypotheses tested in this study are:

H_0 = There is no relationship between the demographic and socio-economic characteristics of women and voluntary abortion in South Africa

H_1 = There is a relationship between the demographic and socio-economic characteristics of women and voluntary abortion in South Africa.

Chapter 3: Methodology

The following chapter discussed the methodology that was applied to the current study which focused on the trends, differentials and determinants of voluntary abortion among South African women. This chapter includes the methods utilized in the study, a description of the variables used in the study, the study hypothesis, ethical considerations, as well as the data analysis plan.

3.1 Data Source

This study has utilized data from the South African General Household Survey from 2010 to 2013. The survey is a household instrument that determines the progress of development in the country (Statistics SA, 2014).

3.2 Study setting

The current study is based in South Africa, officially known as the Republic of South Africa. South Africa is situated at the southern tip of Africa. The country has a population of 51.8million people and is made up of nine (9) provinces (Statistics SA, 2013). The rationale for choosing South Africa as the study setting is due to the fact that it is an African country that has one of the most liberal abortion laws thus, making it a perfect study site for this research.

3.3 Survey design

The study analyzed secondary data from the South African General Household Survey (GHS) from 2010 to 2013. The data was pooled together from four cross sectional surveys. It was chosen due to the fact that it is an overall representative of the country's population.

The sample design for the GHS was based on a Master Sample (MS) that was originally designed for the Quarterly Labour Force Survey (QLFS). The MS made use of a two-stage, stratified design with probability-proportional-to-size (PPS) sampling of primary sampling units (PSUs) from within strata, and systematic sampling of dwelling units (DUs) from the sampled PSUs (Statistics SA, 2012).

3.3.1 The General Household Survey (GHS) 2010-2013

The GHS is a household survey that has been implemented yearly by Statistics South Africa since 2002. The survey was established in order to address a need acknowledged by the Government of South Africa to identify the level of development in the country and to measure the performance of programs and projects that were implemented (Statistics SA, 2012).

The survey is explicitly designed to measure numerous aspects of the living conditions of South African households, as well as the quality of service delivery in a number of key service sectors. The GHS covers six broad areas namely; education, health and social development, housing, household access to services and facilities, food security, and agriculture (Statistics SA, 2012). The GHS covers all nine provinces of South Africa namely Gauteng, Limpopo, Mpumalanga, Eastern Cape, North West, Western Cape, Free State, Northern Cape and KwaZulu-Natal (Statistics SA, 2012).

3.4 The study population and sample size

3.4.1 Study Population

The population of interest for this study was South African women of reproductive ages (15-49) who willfully terminated a pregnancy. To be specific, the study consists of women who were interviewed in the General Household Survey and it was recorded that their most recent pregnancy was ended by choice before the end of term of their pregnancy.

The study population is representative of all four racial groups found in South Africa namely; coloured, white, Indian and black. Furthermore, the target population of the survey consists of all private households in all nine provinces of South Africa. However, the survey does not cover other collective living quarters such as students' residences, hospitals and old age homes (Statistics SA, 2011; Statistics SA, 2012).

The study was restricted to women who answered that the pregnancy ended due to willful termination of the pregnancy. The focus of this study is to identify the trends, differentials and determinants of women who willfully terminate a pregnancy and the only way that this

can be achieved is through the use of the available data sets which are collected by Statistics South Africa.

3.4.2 Sample Size

The GHS is conducted every year. The current study has appended four years of data (2010-2013). Appended data results in a rich data source and has also permitted the study to probe into voluntary abortion between four consecutive years. The study made use of the person file which contains the demographic and socio-economic characteristics of women who willfully terminated a pregnancy such as age, race and province. The sample used in this study is women of reproductive ages (15-49 years old) who were selected to participate in the GHS. A total of 9,720 women were included in the study, these are women who voluntarily underwent abortions in the period of 2010-2013.

3.5 The instruments

The GHS is made up of 4 to 5 core sections, each of which focuses on a specific area of importance. Information was collected on various aspects of the living circumstances of members from over 30 000 households across the country. The sampled dwelling units in each of the nine provinces were visited by field staff employed and trained by Statistics South Africa, and a GHS questionnaire was completed through face-to-face interviews for each household visited (Statistics SA, 2012).

3.6 Variable identification

3.6.1 Dependent variable

The dependent variable used in this study has been created through the use of two specific questions on the questionnaire:

In order to identify women who are pregnant within the survey the question “Has any female member of the household been pregnant in the last 12 months” is asked, this is then responded to with either a “yes” or “no” answer. Those who answered “yes” were included in the study and those who answered “no” were excluded.

The second question that is asked in the survey is “What is the current state of this pregnancy?”, responses given included “Currently still pregnant”, “The child has been born

alive", "The child died in the womb or during childbirth on / after the 7th month of pregnancy (stillbirth)", "The child died in the womb or the pregnancy ended before the 7th month of pregnancy (spontaneous abortion/miscarriage)", "The pregnancy was ended by choice before the child was born (termination of pregnancy/abortion by choice)". The study focused only on those who reported that "pregnancy was terminated by choice before the child was born (termination of pregnancy/abortion by choice)".

A voluntary abortion variable was created. If the respondent had a live birth it was coded as (0), if a pregnancy resulted in a voluntary abortion it was coded as (1) and other pregnancy outcomes were coded as (2).

3.6.2 Independent variables

The study looked at different background characteristics that provided a deeper demographic profile of all the women who were included in the sample. The variables that were analyzed in the study included socio-economic characteristics, as well as demographic characteristics. The demographic and socio-economic characteristics are important to understand in order to create a profile of women who voluntarily terminate a pregnancy in South Africa; it is for this reason that the independent variables were selected for the study.

Table 1 below shows a list of all the independent variables used in the study which are relevant in understanding the determinants of voluntary abortion among women in South Africa. The variables "Highest Level of Education", "Employment Status" and "Place of Residence" and "Marital Status" encompass indicators of socio-economic status. While the variables "Age", "Race" "Province of Residence" are demographic variables that will aid in describing the women in the sample. The study also included "HIV Status", as well as whether the respondent had "Recently suffered any illness or injury". These are examples of health indicators among women.

Age was grouped into five-year age groups. The age group 0-14 was dropped from the study as these individuals were below the legal age to consent to being interviewed for the survey and, they are not recognized as being of reproductive age which is from the age of 15-49. Therefore, the study includes women who are 15 years old and older.

Employment status was used as a measure for socio-economic status in the study as this aids in establishing whether an individual works or relies on income from external parties. Employment status was categorised into two categories namely employed (1) and unemployed (2). The place of residence was used to establish the type of residence that women who have a voluntary abortion reside in. There are 2 categories for the place of residence: urban and rural.

Table 3.1: Independent Variables used in the study and their definitions along with specific questions asked in the original GHS questionnaire

Variables:	**Questions asked in the GHS**	**Definitions:**
Demographic:		
Age		15-19 **(1)** 20-24 **(2)** 25- 29 **(3)** 30-34 **(4)** 35-39 **(5)** 40-44 **(6)** 45-49 **(7)**
Race	**What population group does ..... belong to?**	black **(1)** coloured **(2)** white **(3)** Indian/ Asian **(4)**
Marital Status	**What is ……'s present marital status?**	Married **(1)** Cohabiting **(2)** Divorced, Separated and Widowed **(3)** Single **(4)**
Province of Residence		Western Cape (**1)** Eastern Cape (**2)** Northern Cape (**3)** Free State (**4)** KwaZulu-Natal (**5)** North West (**6)** Gauteng **(7)** Mpumalanga **(8)** Limpopo **(9**)
Socio Economic:		
Highest level of education	**What is the highest level of education that …… has successfully completed?**	No schooling/Primary**(1)** Secondary **/**Tertiary **(2)**
Employment Status	**During the last calendar week (Sunday to Saturday) did ….. work for a wage, salary, commission?**	Employed **(1)** Unemployed **(2**)

Place of Residence		Urban **(1)** Rural **(2)**
	Health Indicators:	
Suffered any injuries or illnesses in the past month	**During the past 30 days, did …… suffer from any illnesses?**	No **(1)** Yes **(2)**
HIV Positive	**Has…..been informed by a medical practitioner or nurse that he/she suffers from the following condition?**	No **(1)** Yes **(2)**

3.7 Data Management & Steps in Data analysis

3.7.1 Data management

The 2010-2013 General Household Survey was downloaded from the Statistics South Africa website (statssa.gov.za.).The data was downloaded in STATA format and STATA version 12 was used to describe and analyze the data quantitatively. The data used in the study was weighted.

3.7.2 Steps in data analysis

The analysis for the current study has been done according to the objectives set forth. Three forms of analysis were done for each objective in order for the purposes of the current study to be met.

Answering the objectives:

Objective 1: *To examine the trends of voluntary abortion in South Africa for 2010-2013 according to the GHS*

This objective was reached and explained through the use of frequency distributions which aided in understanding the trends of abortion in the country. Furthermore, the second analysis that was conducted in order to achieve objective one was to calculate the rate of voluntary abortion. The rate of voluntary abortion in South Africa was calculated in order to understand the extent of voluntary abortion in the country.

The rate of voluntary abortion was calculated as follows:

$$\text{Rate of voluntary abortion} = \frac{number\ of\ voluntary\ abortions\ in\ that\ year}{number\ of\ pregnancies\ in\ that\ year} * 10000$$

It is important to note that the sum of the pregnancies was divided by four; the rationale behind doing so was that not all women would fall pregnant in the specific year. Furthermore some women may fall pregnant twice in a year and thus, dividing the sum of the pregnancies can account for that. Furthermore this is only for the total period rate, thus it was the abortion rate for the period 2010-2014.

Lastly, the age specific abortion rate was conducted per 10 000 pregnancies. The age groups 15-24 were combined, as well as the age groups 25-39. Below is the formula that was used to calculate the age specific abortion rate per 10 000 pregnancies in South Africa in 2010-2014. The rate was calculated as follows:

a) $$\text{Age Specific Abortion Rate} = \frac{\sum VA15-24\ (2010-2014)}{\sum Pregnacies(2010-2015} * 10000$$

b) $$\text{Age Specific Abortion Rate} = \frac{\sum VA\ 25-39(2010-2014)}{\sum Pregnacies(2010-2015} * 10000$$

Objective 2*: To determine the socio economic and demographic determinants of women who undergo voluntary abortion in South Africa*

Firstly, bivariate analysis using cross tabulations were performed to test for associations. The use of cross tabulations was useful to test for associations between different demographic and socio-economic characteristics of women who undergo voluntary abortion in South Africa. For the purpose of the study, a chi-square test was performed to examine the association between individual demographic and socio-economic characteristics of women and voluntary abortion.

Secondly, a multivariate analysis was performed using a multinomial logistic regression. This test was selected in order to examine the association between selected demographic and socio-economic variables and the outcome.

The multinomial logistic regression producing relative risk ratios was used to examine the factors that affect the decision to voluntarily terminate a pregnancy among women of reproductive ages. According to Healy (2006), a multinomial logistic regression is utilized to analyze the relationship between a categorical outcome variable with a set of predictor variables.

This model has also been used as it does not assume normality, linearity or homoscadascity (Healy, 2006). This analysis tests the probability of all independent variables being statistically significant in a specific category, compared to the selected baseline outcome category of the outcome variable (Hilbe, 2009). Additionally, in testing all independent variables the regression omitted the first factor by using it as a reference group.

The formula for this test is:

$$\mathbf{Ln\ (pi\ /\ 1\text{-}pi) = \beta 0 + \beta 1xi1 + \beta 2xi2 + \beta 3xi3 + \beta 4xi4 + \beta 5xi5 + \beta 6xi6 + \beta 7xi7 + i}$$

Where:

Ln (pi / 1-pi) = log-odds ratio

β = parameters

$\boldsymbol{\beta_0}$ = beta for intercept

β xi = beta for predictor variables

i = variation in the model

In the result section of the study, relative risk ratios have been reported. An important aspect of the multinomial logistic regression it estimates k-1 models, where k is the number of levels of the outcome variable. In the current study, the outcome variable, pregnancy outcome, has three levels, namely, live births (0), spontaneous abortion (1) and voluntary abortion (2). The reference group has been set as 0 (live births).

3.8 Ethical issues

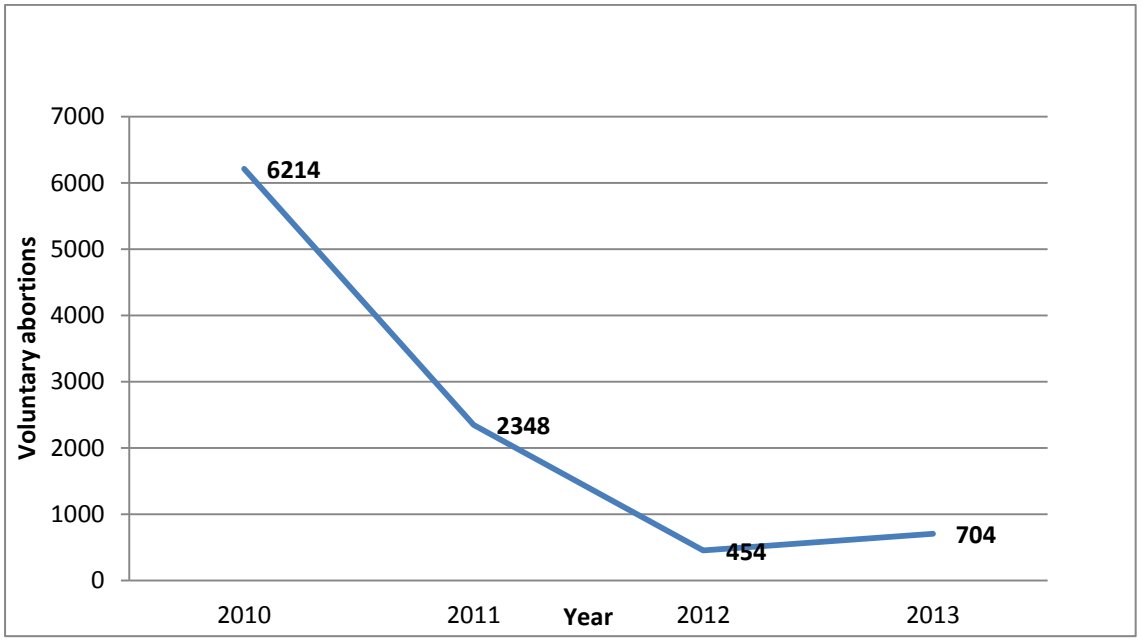
Due to the fact that this study is a secondary analysis of collected data no personal information was shared within the data set thus anonymity was guaranteed.

Chapter 4: Results

4.1 Trend of Voluntary Abortion in South Africa

Figure 4.1 shows the trend of voluntary abortion among women of reproductive ages in South Africa. The trend of voluntary abortion in South Africa has been graphed with the use of the General Household Survey for four consecutive years. The graph indicates how the level of voluntary abortion in the country is high especially in 2010, and then there is a sharp decrease in the number of voluntary abortions reported in the survey. The year 2011 had the second highest number of voluntary abortions reported, where 2348 abortions were reported. It is evident that 2012 had the lowest number of voluntary abortions where only 454 abortions were reported among women. However the number of voluntary abortions increased in 2013 where 704 voluntary abortions were reported in the survey. A total of 9,720 abortions were reported form 2010-2013.

Figure 4.1: Number of voluntary abortions performed by year, South Africa, 2010-2013



4.2 Bivariate Analysis

Table 4.1 shows the number of reported pregnancy outcomes in South Africa from 2010-2013, including voluntary abortions. In 2010, there were 6,214 (64%) women who underwent voluntary abortions. However, this decreased in 2011 where 2,343 (24%) women underwent voluntary abortions. In 2012, it was indicated that 454 (5%) women had a voluntary abortion and the number increased to 704 (5%) women in 2013. The total number of women who reported to having a voluntary abortion between the years 2010-2013 was 9,720. The table also shows other pregnancy outcomes which are the comparison groups utilised in the study. These consist of women whose pregnancies resulted in a live birth. It is apparent that in 2010 an estimated 822,195 (24%) pregnancies resulted in a live birth. In 2011, it was reported that 843,390 (25%) pregnancies concluded in a live birth. In 2012 and 2013, it is evident that 851,891 (25%) and 857,916 (25%) pregnancies resulted in a live birth.

Table 4.1 further displays the frequency and percentage distribution of other pregnancy outcomes; these include pregnancies that resulted in either a spontaneous abortion or a still birth. In 2010, an estimated 60,637 (27%) pregnancies resulted in spontaneous abortion or a still birth, 2011 was characterised by 47,302 (21%) pregnancies which concluded in a spontaneous abortion or a still birth. In 2012 and 2013, it is evident that 51,185 (23%) and 66,351 (29%) pregnancies resulted in a spontaneous abortion or still birth among women in South Africa.

Table 4.1: Frequency and Percentage Distribution of Pregnancy outcomes by year, South Africa 2010-2013

Year	Voluntary Abortions (Cases)	Live Births (Control)	Other pregnancy outcomes	Total
2010	6,214 (64%)	822,195(24%)	60,637(27%)	889046
2011	2,348 (24%)	843,390(25%)	47,302(21%)	893040
2012	454(5%)	851,891(25%)	51,185(23%)	903530
2013	704 (7%)	857,916(25%)	66,351(29%)	924971
Total	9,720 (100%)	337, 5392 (100%)	225,473 (100%)	3610585

Table 4.2: Frequency and Percentage Distribution of Demographic and Socioeconomic Characteristics of Women by all birth outcomes in South Africa, GHS 2010-2013

Characteristics	Voluntary Abortion (Cases)	Live Births (Control)	Other pregnancy outcomes	Total
Demographic Variables				
Age				
15-19	1,153 (13.33)	347,447 (15)	11,967 (9.38)	360,567
20-24	1,250 (20)	681,458 (22.8)	36,564 (22.96)	719,272
25-29	5,548 (40)	631,681 (22.5)	49,011 (25.43)	686,240
30-34	1,100 (13.33)	465,555 (20)	34,284 (16.79)	500,939
35-39	666 (13.33)	276,519 (10)	31,294 (19.01)	308,479
40-44	0	86,271 (4)	6,925 (4.69)	93,196
45-49	0	17,844 (5.7)	2,525 (1.73)	20,369
Total	9,720	250,6775	172,570	2, 188, 123
p-value 0.000*				
Province				
Western Cape	1,199 (20.00)	240,614(8.88)	25,398(12.22)	267,211
Eastern Cape	695(6.67)	342,258(11.08)	19,091(11.00)	362,044
Northern Cape	0(0)	67,678(7.06)	4,704 (6.11)	72,382
Free State	0(0)	153,900(8.41)	8,578(7.33)	162,478
Kwa-Zulu Natal	606(6.67)	501,455(15.71)	24,044 (10.76)	526,105
North West	0(0)	187,854(9.80)	16,414(13.94)	204,268
Gauteng	6,211(46.67)	483,832(12.77)	39,170(16.63)	529,213
Mpumalanga	1,006(20.00)	197,200(11.01)	14,954(11.25)	213,160
Limpopo	0(0)	348,708(15.28)	21,934(10.76)	370,642
Total	9,720	252,3499	174,287	2, 707, 503
p-value 0.000*				
Race				
African/black	8,874 (86.67)	2178441(86.71)	145,878 (83.86)	233,3193
Coloured	449 (6.67)	199,185(9.77)	21,263(12.71)	220,897
Indian	0 (0)	53,333(1.12)	2,459(1.47)	55,792
White	396 (6.67)	92,542(2.40)	4,690(1.960)	97,628
Total	9,720	252,3501	174,290	2, 707, 510
p-value 0.431*				
Marital Status				
Married	606 (6.67)	658,738(22.10)	52,428(29.34)	711,772
Cohabiting	2,390 (33.33)	428,950(15.62)	41,429(19.07)	472,769
Divorced, Separated & Widowed	494 (2.20)	39,248(1.63)	3,125 (2.20)	42,867
Single	6,228 (49.39)	139,573(60.65)	77,308(49.39)	223,109

Total	9,720	126,6509	174,290	1, 450, 517
p-value 0.000*				
Socio Economic Variables				
Place of Residence				
Urban	8,762(86.67)	139,1890(52.29)	112,343(58.68)	151,2995
Rural	957(13.33)	113,1612(47.71)	61,948(41.32)	119,4517
Total	9,720	252,3502	174,291	2, 707, 512
p-value 0.001*				
Level of Education				
No Schooling/ Primary	2,662(40.00)	976,768 (32.07)	60,282 (30.81)	1, 039, 712
Secondary/ Tertiary	7,056(60.00)	88,190(67.59)	113,034 (68.070)	208,280
Total	9,720			
p-value 0.969				
Employment Status				
Employed	4,756 (35.71)	446,836 (16.97)	61,030 (30.56)	512,622
Unemployed	4,509 (64.29)	206,2550 (83.16)	113,261 (69.44)	2, 180, 320
Total	9,720	106,4958	173,316	1, 247, 992
p-value 0.000*				
Health Indicators				
Illness or Injury				
No	5,682(64.29)	2416447 (92.67)	162,037 (81.27)	258,4166
Yes	4,037(35.71)	80,376 (7.33)	11,879 (18.73)	96,292
Total	9,720	249,6823	173,916	2, 680, 458
p-value 0.000*				
HIV Status				
HIV Negative	5,682(80.00)	2416447 (96.75)	48,798 (93.87)	2, 470, 927
HIV Positive	4,037(20.00)	80,376(3.25)	2,386(6.13)	86,799
Total	9,720	2496823	51,184	2, 557, 726
p-value 0.000*				

*** significance at 5% level of significance**

The percentage distribution of birth outcomes by woman's characteristics is shown in Table 4.2. The table indicates that almost 40% of women who terminated a pregnancy were between the ages of 25-29 which makes up the majority of the respondents. Approximately 20% of the women who terminated a pregnancy were between the ages of 20-24. It is apparent that young women between the ages of 15-19 and 35-39 comprised of a smaller percentage (13.33%) that wilfully terminated a pregnancy. It is also evident that from the above percentage distribution, no voluntary abortions were reported among women who are over their 40's. The table further deduces that 16% of pregnancies resulted in a live birth

among women ages 30-34 and 25% of pregnancies among women aged 25-29 resulted in other pregnancy outcomes.

In addition, the provincial distribution of women who wilfully terminated a pregnancy demonstrates that more than 46.67% of voluntary abortions were conducted by women who reside in the Gauteng province. The table also indicates that 15% of pregnancies resulted in live births in KwaZulu-Natal and Limpopo province. In addition to this, a fewer percentage of voluntary abortions were conducted by women who reside in other provinces namely; the Western Cape province which had 20% of voluntary abortions along with Mpumalanga at 20%. The least number of abortions were reported in the Eastern Cape and KwaZulu-Natal (6.67%). In the North West province, 13% of pregnancies resulted in other pregnancy outcomes.

African or black, coloured and white women all reported undergoing the procedure with the highest number of voluntary abortions occurring in the African population at 86.67%. Lower percentages of voluntary abortion were reported among coloured (6.67%) and white (6.67%) populations according to the data in 2010-2013. Furthermore, 13% of other pregnancy outcomes were amongst coloured women while 86% of live birth occurred among black women.

It is evident that the majority of the women who underwent a voluntary abortion were from the urban areas of South Africa. It is apparent that 86.67% of voluntary abortions were among women residing in urban areas. Furthermore, 13.33% of women who reside in rural areas of South Africa wilfully terminated a pregnancy. In comparison to live births, it is evident that 47% of women who reside in rural areas had pregnancies resulting in a live birth. It is apparent 58% of women who reside in urban areas had pregnancies that resulted in other pregnancy outcomes.

Additionally, 49.39% of single women willingly terminated a pregnancy. Approximately 33.33% of women who reported that they underwent a voluntary abortion were cohabiting with a partner. The percentage distribution of women, who were divorced, separated from their partner or widowed showed to be very low with approximately 2.20% of women reporting that they accessed a voluntary abortion. In comparison, 6.67% of married women indicated that they voluntarily terminated a pregnancy. Among the women in the sample, it

is evident that 22% of pregnancies among married women resulted in a live birth, while 19% of other pregnancy outcomes were amongst women who were cohabiting with a partner.

Of the 9720 women who underwent a voluntary abortion between 2010 and 2013 almost 20% of them were HIV positive; while the remaining 80% were reported to have an HIV negative status. It is evident that 3% of HIV positive women had pregnancies that resulted in live births, whilst 6% of those pregnancies among HIV positive women resulted in other pregnancy outcomes.

Approximately 60% of women who reported to having a voluntary abortion were women with secondary or tertiary education while the remaining 40% indicated that they had no education or primary education. However, the table indicates that 32% of pregnancies resulted in a live birth among women with no education or primary education. Those with secondary or tertiary education had 68% of pregnancies resulting in other pregnancy outcomes.

The data further indicates that 35.71% of women who recently suffered from an injury or illness wilfully terminated a pregnancy between the years 2010-2013. Additionally, 7% of women who suffered from an illness or an injury had pregnancies that resulted in live births. The table further highlights that 18% of women who suffered any illness or injury had pregnancies that resulted in other pregnancy outcomes. It is established that approximately 64.29% of women who had a voluntary abortion were unemployed. Furthermore, 51% of women who had a voluntary abortion were employed. In comparison, it is evident that 83% of pregnancies resulted in live births among unemployed women, whereas 30% of pregnancies resulted in other pregnancy outcomes among women employed.

4.3 Rates of Voluntary Abortion in South Africa

Rates of voluntary abortion per 10 000 pregnancies were calculated using the General Household Survey.

4.3.1 Rate of voluntary abortion in South Africa

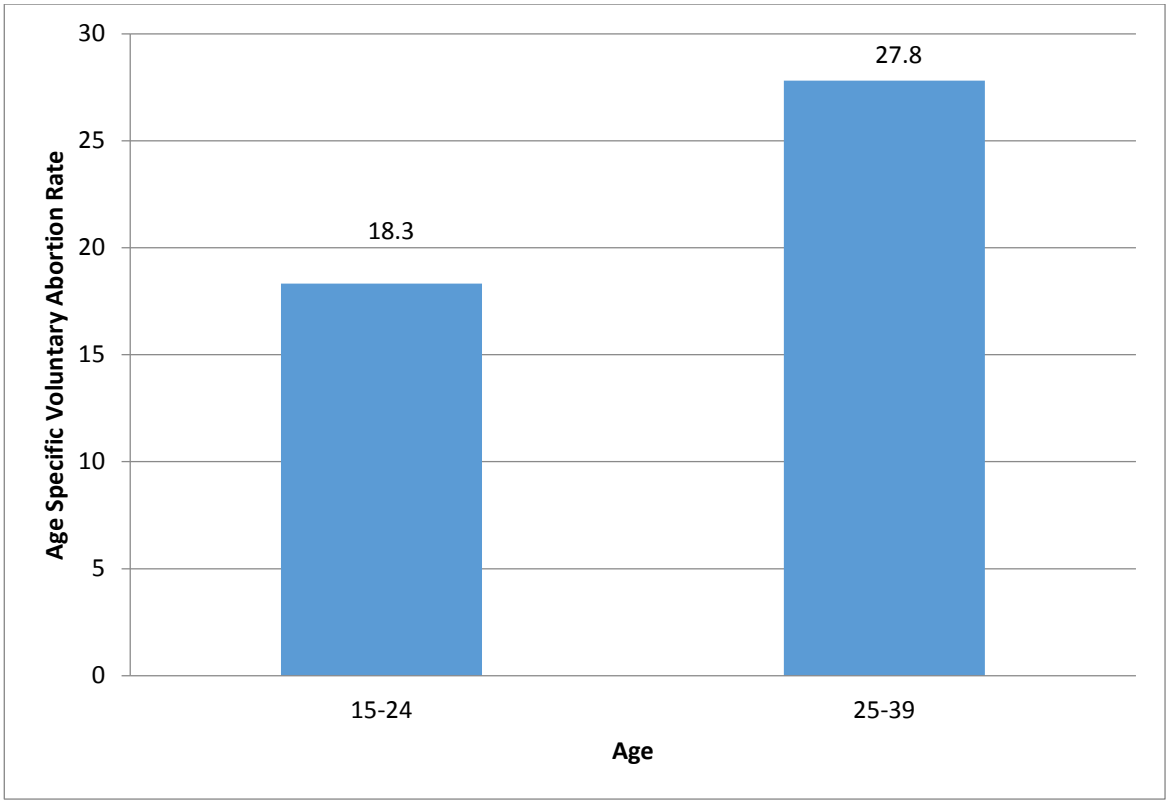
Table 4.3: Rates of Voluntary Abortion per 10 000 pregnancies: 2010-2013

Year	Number of voluntary abortions	Number of pregnancies	Rate per 10 000 pregnancies
2010	6214	1266269	49.88
2012	2348	1170821	18.84
2012	454	1251934	3.64
2013	704	1293508	5.65
Total	9720	4982532	78.03

According to the data, in 2010 there were approximately 50 voluntary abortions per 10 000 pregnancies, compared to 2011 where there were 19 voluntary abortions per 10 000 pregnancies in South Arica. Results indicate that the voluntary abortion rate was higher in 2010 and 2011 in comparison to 2012 and 2013 where 4 and 6 voluntary abortions per 10 000 pregnancies were highlighted respectively. Lastly the total voluntary abortion rate was 78 voluntary abortions per 10 000 pregnancies.

4.3.2 Age Specific Abortion Rate in South Africa

Figure 4.2: Age Specific Abortion Rate calculated by year and age group: 2010-2013



In Figure 4.2 voluntary abortion rates were calculated by year and age group. The age groups 15-19 and 20-24 were combined in order to generate an overall age specific abortion rate for women in South Africa. There were approximately 18 voluntary abortions per 10 000 pregnancies among women ages 15-24. The age specific abortion rate clearly increases with age as it is evident that among women aged 25-39 there were 27 voluntary abortions per 10 000 pregnancies.

4.4. Multivariate analysis

Table 4.4 gives the estimated multinomial logistic regression relative risk ratios. Two models were conducted in order to determine the effect that demographic and socio-economic characteristics have on establishing whether women will engage in voluntary abortion behaviour or not. The two models entail the unadjusted model which was conducted at a bivariate level, as well as an adjusted model. Live births have been used as the reference group in Table 5 as well as Table 6 which is used to determine the likelihood that women would engage in a voluntary abortion.

Table 4.4: Unadjusted Multinomial Logistic Regression displaying the Relative Risk Ratios of voluntary abortion among women of reproductive ages in South Africa

Unadjusted Model	**Voluntary Abortion**		**Other Pregnancy Outcomes**	
Characteristics	**RRR**	**P-Value**	**RRR**	**P-Value**
Age				
15-19 (RC)				
20-24	1.37	0.991	1.30	0.649
25-29	1.17	0.854	1.94*	0.004*
30-34	0.45	0.519	1.65	0.997
35-39	0.7	0.771	3.12*	0.001*
Province				
Western Cape (RC)				
Eastern Cape	0.77	0.855	0.68	0.991
Northern Cape	1.25	0.989	0.607*	0.000
Free State	-	-	0.57	0.133
Kwa-Zulu Natal	0.57	0.694	0.48*	0.002*
North West	-	-	0.903	0.568
Gauteng	2.08	0.525	0.83	0.696
Mpumalanga	1.67	0.675	0.67*	0.003*
Limpopo	-	-	0.33	0.990
Race				
African/black(RC)				
Coloured	2.59	0.985	1.68*	0.001*

Indian	-	-	1.35	0.997
White	2.50	0.992	0.91	0.264
Marital Status				
Married(RC)				
Cohabiting	4.25	0.210	0.90	0.129
Divorced, Separated and Widowed	1.27	0.992	1.13	0.043
Single	1.48	0.725	0.57	0.259
Place of Residence				
Urban(RC)				
Rural	0.36	0.218	0.76	0.239
Level of Education				
No Schooling/ Primary(RC)				
Secondary /Tertiary	6.488	1.000	1.273	0.998
Employment Status				
Employed(RC)				
Unemployed	1.22	0.848	0.43*	0.000*
Illness and Injury				
No (RC)				
Yes	0.08*	0.001*	0.25*	0.002*
HIV Status				
HIV Negative (RC)				
HIV Positive	0.27	0.229	0.43*	0.000*

*** significance at 5% level of significance**

The above table indicates that women aged between the ages of 20-24 and 25-29 had 1.37 times the risk of having a voluntary abortion relative to a live birth. On the other hand, women aged between 30-34 and 35-39 had 0.4 times less the risk of engaging in a voluntary abortion relative to a live birth or other pregnancy outcomes. Women aged 25-29 were significantly more likely to be at risk of experiencing other pregnancy outcomes, women aged 35-39 had 3.12 times the risk of having a stillbirth or a spontaneous abortion.

In contrast to having a live birth, women residing in Gauteng were 2.08 times more likely to be at risk of having a voluntary abortion. Furthermore, women who live in Mpumalanga and the Northern Cape were 1.67 and 1.65 times respectively more at risk of engaging in a voluntary abortion in contrast to a live birth. Lastly, women who reside in the Eastern Cape and KwaZulu-Natal were less likely to have a voluntary abortion in contrast to a live birth (RRR=0.77 & 0.57 respectively). Women residing in the Northern Cape, KwaZulu-Natal and Mpumalanga provinces were significantly less likely to be at risk of a spontaneous abortion or a still birth.

According to the results, the multinomial relative risk ratio for voluntary abortion relative to a live birth among the coloured and white population would be expected to be 2.59 and 2.59 times higher, respectively. Similarly, coloured women were 1.68 times at risk of having a spontaneous abortion or a still birth, this proved to be statistically significant.

Women who are cohabiting with a partner are 4.25 times more at risk of having a pregnancy that results in a voluntary abortion in relation to the pregnancy actually resulting in a live birth. Furthermore, when it came to the marital status of women, the multinomial logistic regression indicated that women who were divorced or separated from their partners were 1.27 times more at risk of having a voluntary abortion in relation to a live birth. In contrast, women who were divorced, separated or widowed were more at risk of having a spontaneous abortion or a stillbirth relative to a live birth (RRR=1.13).

In contrast to live births, women who reside in rural areas were 0.3 times less likely to have voluntary abortions than those who reside in urban areas. Additionally, women residing in rural areas were less likely to have a spontaneous abortion or a stillbirth (RRR=0.76).

Furthermore, women who had secondary or tertiary education have 6.5 times higher risk of having a voluntary abortion in contrast to a live birth than women who had no education or primary school education. The relative risk ratios go on to indicate that among women who have secondary or tertiary education, there is a higher risk of a spontaneous abortion or a still birth. The results indicate that in contrast to live births women who were unemployed were 0.08 times less likely to have a voluntary abortion than women who were employed. Furthermore, women who were unemployed were statistically more likely to have a spontaneous abortion or have a still birth.

The risk of having a voluntary abortion among women who had recently suffered from any illness or injury relative to a live birth would be expected to be significantly less (RRR=0.08). Additionally, women who had recently suffered from an illness or injury were also significantly less likely to have a spontaneous abortion or a still birth.

The results also indicate that in contrast to a live birth, women who had an HIV positive status were less likely to have a voluntary abortion (RRR=0.27). In comparison, women who were HIV positive were significantly less likely to have a spontaneous abortion or a still birth.

The results presented above are all from the unadjusted model which was conducted at the bivariate level. The results that were established from the adjusted model are presented below.

Table 4.5: Adjusted Multinomial Logistic Regression displaying the Relative Risk Ratios of voluntary abortion among women of reproductive ages in South Africa

Adjusted Model	**Voluntary Abortion**		**Other Pregnancy Outcomes**	
Characteristics	**RRR**	**P-Value**	**RRR**	**P-Value**
Age				
15-19(RC)				
20-24	3.09	0.987	1.14	0.451
25-29	0.63	0.656	1.51	0.232
30-34	0.37	0.471	1.03	0.564
35-39	0.55	0.667	2.05	0.001
Province				
Western Cape(RC)				
Eastern Cape	0.31	0.467	0.85	0.535
Northern Cape	4.81	0.992	0.67	0.234
Free State	-	-	0.72	0.203
KwaZulu-Natal	0.23	0.345	0.64	0.055
North West	-	-	1.05	0.676
Gauteng	0.43	0.517	0.94	0.687
Mpumalanga	0.71	0.813	0.77	0.433
Limpopo	-	-	0.42*	0.002*
Race				
African/black (RC)				
Coloured	2.85	0.992	0.93	0.976
Indian	-	-	0.65	0.448
White	4.79	0.996	0.67*	0.001*
Marital Status				
Married (RC)				
Cohabiting	1.93	0.602	1.39	0.985
Divorced, Separated and Widowed	1.87	0.997	1.17	0.488
Single	1.3	0.823	0.40*	0.003*
Place of Residence				
Urban (RC)				
Rural	0.48	0.477	1.09	0.461
Level of Education				
No Schooling/ Primary (RC)				
Secondary/ Tertiary	1.734	0.998	1.920	0.539
Employment Status				
Employed (RC)				
Unemployed	1.59	0.694	0.45*	0.000*

Illness and Injury				
No (RC)				
Yes	0.09*	0.003*	0.29*	0.000*
HIV Status				
HIV Negative (RC)				
HIV Positive	0.403	0.455	0.41*	0.000*

*** Significance at 5% level of significance**

In contrast to live births, it was established that the relative risk for women aged 20-24 of having a voluntary abortion would be expected to be 3.09 times higher, women who were between the ages of 25-29 and 35-39 were 0.63 times less likely to have a voluntary abortion relative to a live birth. Women who were aged 30-34 were 0.37 times less likely to have a voluntary abortion in contrast to their pregnancy ending in a live birth. In comparison, women aged 25-29 were 1.14 times less likely to have a spontaneous abortion or a still birth. Women aged between 35 and39 were more likely to have run into the risk of having a spontaneous abortion or stillbirth (RRR=2.05).

The relative risk ratios for province of residence among women indicate that, in contrast to live births, women who reside in the Northern Cape were 4.8 times more at risk of obtaining a voluntary abortion. Furthermore, the results indicate that women who reside in Eastern Cape, KwaZulu-Natal, Gauteng and Mpumalanga were less likely to have a voluntary abortion relative to a live birth (RRR= 0.3, 0.23, 0.43 and 0.71 respectively). Additionally, women who reside in Limpopo province were significantly less at risk of having a spontaneous abortion or stillbirth.

The results indicate that in contrast to a pregnancy resulting in a live birth, coloured women are 2.8 times more at risk of having a voluntary abortion, while white women were 4.7 times more likely to have a pregnancy that results in a voluntary abortion than a live birth. In comparison, white women were significantly less likely to have a spontaneous abortion or a stillbirth (RRR=0.67).

The relative risk ratios for marital status indicate that women who are single were 1.3 times more at risk of having a voluntary abortion relative to a live birth. Furthermore, women who were divorced or separated were 1.8 times more likely to have a voluntary abortion. Lastly, women who were cohabiting with a partner were 1.9 times more likely to have a voluntary abortion in comparison to the pregnancy ending in a live birth. Notably, single women were

significantly less likely to have a spontaneous abortion or a still birth than to have a live birth.

The results show that the relative risk ratio of women residing in rural areas were 0.4 times lower than women who live in urban areas for having a voluntary abortion relative to a live birth. Furthermore, in contrast to a live birth, women who were unemployed were 1.5 times more likely to have a voluntary abortion than women who are employed.

The multinomial risk ratios indicate that women who recently suffered from any injury or illness were 0.09 times less at risk of having a voluntary abortion relative to a live birth. In contrast to a live birth, women who were HIV positive were 0.4 times less likely to have a voluntary abortion than women who are HIV negative.

Chapter 5: Discussion

The purpose of this research was to estimate the characteristics of South African women who undergo voluntary abortion. Results suggest that there are many factors that determine if a woman will terminate a pregnancy, particularly among South African women of reproductive ages (15-49). Furthermore the results indicate that age; race; employment status; marital status; province of residence; place of residence; level of education; having suffered any illness or injury and HIV status are predictors of voluntary abortion in South Africa.

The first objective of the study was to examine the trends and differentials of voluntary abortion in the country. The analysis illustrates that the levels of voluntary abortions were higher than any year in 2010. The year was characterised by 6,214 voluntary abortions. However in 2012 there was a drop in the number of voluntary abortions that were reported at 405. This shows the fluctuations in the abortion levels in the country. The analysis indicates that voluntary abortion levels were on the decline from 2010 to 2012 and increased slightly in 2011, where 705 voluntary abortions were reported in the GHS.

A study conducted by Sing et al. (2009), indicates that in some parts of the world, mostly in the African context, abortion is a sensitive issue culturally and socially. This may be the case even in instances where abortion is legal, like in South Africa, making reporting of the practice an issue. The sharp decrease in voluntary abortions may also be attributed to a high level of under reporting of voluntary abortions in the country. The occurrence of voluntary abortions is often under-reported in surveys and sometimes unreported or under reported even in public hospitals (Shah & Ahman, 2009).

The current study also found that among the frequency distribution of voluntary abortion cases, Gauteng had the highest frequency of reported voluntary abortions at 46%. This was followed by the Western and Eastern Cape that had 20% of voluntary abortions respectively. The lowest frequency was observed for KwaZulu-Natal and the Eastern Cape where only 7% of voluntary abortions were reported. Interestingly the results of the study indicated that there were no voluntary abortions reported in the Free State, Northern Cape, North West

and Limpopo province. A study conducted in the Limpopo province highlighted that there are many challenges when it comes to implementing voluntary abortion services in the province (Sibuyi, 2004). Among these challenges are lack of management, negative attitudes from staff members and the greater community, inadequate training and lastly lack of knowledge within the communities regarding voluntary abortion services (Sibuyi, 2004).

The provincial breakdown of health facilities that offer voluntary abortion services in the country is as follows: Eastern Cape has 10, KwaZulu-Natal has 6, Gauteng has 18, Mpumalanga has 6, Western Cape has 15, Free State has 3, Northern Cape has 2 and North West has 7 (Varkey & Fonn, 2000). It can be argued that because Gauteng has a higher number of facilities it may be expected that it has the highest distribution of voluntary abortions. A study conducted by Gumede (2004) which focused on termination of pregnancy discovered that among the participants, 96% of the women were from Gauteng however the remaining 4% reported that they were from Mpumalanga, Eastern Cape and KwaZulu-Natal. This then brings forth an argument that women from neighbouring provinces may come to Gauteng to make use of the services if they have a lack of them in their own home provinces thus resulting in a higher frequency distribution for Gauteng as indicated in the current study.

Often there is a concern regarding consent when it comes to voluntary abortion, and the age at which a woman has a voluntary abortion becomes important. The main focus of this study was women aged 15-45 who had voluntarily aborted a pregnancy. The current study found that among the age distribution of women who had a voluntary abortion, 40% were women in their youth, these women were aged 25-29. Murray et al. (2006) indicates that in the African setting age plays an important role in determining if women will experience a voluntary abortion. For example a young woman feels she is too young or too immature to take care of a baby, she may decide to abort the pregnancy. A study conducted in India by Kumar, Jejeebhoy, Zavier & Kalyanwala (2010), highlights that even younger women aged 15-24 are more vulnerable to voluntary abortion, this finding was not consistent with the current study as it was found that women aged 25-29 had the highest distribution out of all the age groups.

The current study further indicated that 64% of women who had a voluntary abortion were unemployed. This finding points to the high level of youth unemployment in South Africa.

Statistics SA (2014) indicates that youth unemployment rates are significantly higher than that of adults in the country. The unemployment rate for the youth was at 36,1% in South Africa in 2014 (Statistics SA, 2014). The male unemployment rate was at 33,4%, however the female unemployment rate was considerably higher at 39,5%. Female unemployment rates are higher than those of males by a large margin. Statistics SA (2014) argues that young women face a more difficult situation in the labour market compared to young men. According to Altman (2007), young women are often at a disadvantage in the labour market due to a lack of previous work experience as well as weak networks that would help them in the labour market.

The second objective of the study was to determine the socio economic and demographic determinants of women who undergo voluntary abortion. This was conducted at the multivariate level. The multivariate analysis further found that unemployed women had higher risks of acquiring a voluntary abortion among South African women. This may be an indication that women may feel that they cannot have a child without the necessary resources for their upkeep (Hess, 2007). Voluntary abortion is offered for free in government hospitals and clinics thus implying that the unemployment status of a woman cannot hinder her acquiring the service (Mhlanga, 2003). The findings of the current study are consistent with the findings of a study conducted in Zimbabwe that indicated that most women who had a voluntary abortion were unemployed (Mudokwenuy-Rawdon, Ehlers & Bezuidenthout, 2005).

Unemployment as a risk factor was further confirmed by a study conducted in Ghana which looked at how unemployment and youth are associated to voluntary abortion. It was discovered that most of the women who accessed a voluntary abortion were in their early 20's and were either facing immense poverty at the time of their abortion or were generally unemployed (Morhee & Morhee, 2006).This finding is similar to the finding that was discovered in the current study that younger women had the highest distribution of voluntary abortion and the women appear to be of lower socio-economic status. Similar to age and unemployment, race can also play an essential role in voluntary abortion.

Although race is not the strongest predictor of attitudes towards abortion, there are studies that indicate that black South Africans are far less likely than Indians; coloured or white people to approve of voluntary abortion (Mncwango & Rule, 2006). However the current

study found that among the percent distributions, over 86% of African women reported to having a voluntary abortion. Furthermore the multivariate analysis found that white and coloured women were two times more at risk of having a voluntary abortion in relation to black women. Cohen (2008) further indicates that in the United States of America, the abortion rate for black women is nearly five times that of white women which is in tandem with the frequency distribution found in the current study. This differential among the different racial groups in South Africa can be attributed to the culture and traditions that are unique to each race. Each culture may have a specific way of viewing abortion; some cultures may be pro-life thus banning the practice. Another predictor of voluntary abortion that is important to the current study is marital status.

The marital status of a woman can play a fundamental role in determining whether she will have a voluntary abortion or not. This is further argued by Singh, Wulf, Hussain, Bankole, and Sedgh (2009), who explain that there is stigma regarding non-marital childbearing. The current study found that women who were cohabiting with a partner were 1.9 times more at risk of obtaining a voluntary abortion. Cohabitation can be defined as a consensual relationship between a man and a woman who decide to live together as husband and wife, their relationship therefore resembling a marriage (Parry, 1981; De Bruyn, 1993). The couple have consistent sexual intercourse without necessarily being married (Mashau, 2011).

In South Africa, it is understood that there is a growing trend towards cohabitation, though there is little demographic evidence to confirm this finding (Mashau, 2011). It can be argued that cohabitation emerges due to the fact that young women decide to get married at a later age in the country (Budlender, Chobokaone & Simelane, 2004).Women may fall pregnant unexpectedly in these unions; thus resulting in the unplanned and unwanted pregnancies ultimately leading to legal or illegal abortions (Chitamun & Finchilescu, 2003). This is consistent with the finding of the current study where it was found that women in cohabiting relationships are more at the risk of terminating a pregnancy. Furthermore rates of unintended pregnancy and abortion are high among cohabiting women. A study conducted in the United States of America, found that 70% of cohabiting women's pregnancies were unintended and that over half ended in abortion (Finer & Henshaw, 2006).

The study further found that the risks of women who were single were higher for attaining an abortion than married women which is consistent with what prior research has discovered. A study conducted in Brazil indicated that when single women became pregnant they would be more likely to terminate the pregnancy (Souza & Vieira, 2009). A study conducted by Calves (2002) found that young unmarried women are more susceptible to having a voluntary abortion. Additionally Claves (2002) indicates that in most Sub Saharan countries, abortion is common among young single women. Similar to marital status, it is noticeable that the place of residence of women is also a likely indicator of voluntary abortion in the current study.

The place of residence of a woman may be related to the decision to abort a pregnancy. The multivariate analysis for place of residence among women who would voluntarily terminate a pregnancy indicates that women who reside in rural areas are less at risk of terminating a pregnancy in relation to women who reside in urban areas. Murray et al. (2006), argue that women living in urban areas are more likely to have a voluntary abortion, mostly because there are fewer social prohibitions of the practice than in the rural areas. A study conducted among Zimbabwean women discovered that that the majority of women who had a voluntary abortion were from urban areas (Mudokwenuy-Rawdon et al., 2005). This finding is similar to the finding in the current study.

This can be clarified given the context of urban areas. Often urban areas are more exposed to better living conditions, influenced by mass media, better education and there is access to a wide variety of reproductive health care including voluntary abortion services, compared to the rural areas that often characterised by inadequate health care services (Murray et al., 2006).Women residing in urban areas would therefore have different voluntary abortion behaviours given that their circumstances are different from those in rural areas (Murray et al., 2006).

According to Mhlanga (2003) the main objective of Termination of Pregnancy Act of 1996 was meant to benefit women who reside in rural areas. This was due to the fact that where only one or two doctors were present in a hospital, an abortion could not be permitted, as the 1975 Sterilisation and Abortion law required that at least three doctors agree that a woman was in need of a legal abortion. Policy was in a sense restructured to cater for women residing in rural areas (Mhlanga, 2003). A study conducted in KwaZulu-Natal

suggested that voluntary abortion services can be implemented, even in conservative rural areas (Harrison et al., 2000). However the current study has found that women residing in rural areas are at a lesser risk of having a voluntary abortion. This implies that there still may be a lot of work that needs to be done in educating women about voluntary abortions services mostly in rural areas. It can be argued that educational attainment and service availability can be quite low among women in rural areas (Olojede, Adekunle & Samuel, 2013). Education, similar to marital status, age, unemployment is also an important predictor of voluntary abortion.

The current study found that women who had secondary or tertiary education were 6.4 more times at risk of having a voluntary abortion in relation to women who had no schooling or primary education in the multivariate analysis. A study conducted by Mote et al. (2010) in Hoehoe, Ghana indicates that the lower the education level or status of a woman the less likely she is to have a voluntary abortion. The results of the study conducted by Mote et al. (2010) are similar to the current study in relation to education and how it can be a predictor of voluntary abortion among South African women. In South Africa by law, schools are not permitted to expel female pupils who fall pregnant while still in school (Department of Education, 2009).this is argued to permit teen motherhood, however not all teenagers want to be mothers The reason that young women may terminate a pregnancy may be based on the desire to complete their education (Murray et al., 2006). A study conducted in Nigeria by Koster (2003) further highlighted that many young women may terminate a pregnancy as they would prefer to pursue a career before commencing motherhood.

Samsonova (2011) highlights that the influence of education can enforce a positive attitude towards voluntary abortion. Another study conducted in the United States of America found that education has a strong influence on support for voluntary abortion for females than for males (Narendra, 2010). The study further went on to indicate that the support for voluntary abortion increases as level of educational increases among females (Narendra, 2010). According to Patel and Johns (2009), the positive association between levels of education and abortion attitudes is a regular finding in most abortion research. Similar to level of education, HIV status is also an important determinant of voluntary abortion.

The current study indicates that women with an HIV-positive status had a lower risk of terminating a pregnancy. Approximately 2.5 million women who become pregnant each year worldwide are HIV-positive (World Health Organisation, 2008). The prevalence rate of HIV in South Africa is at 19.1% (UNAIDS, 2013). Literature on this matter has found that voluntary abortion among HIV positive women receives very little attention (Orner et al, 2011). It is apparent that the desire to have fewer children among HIV positive women than among HIV-negative women or women of unknown status has not been well documented (Bankole et al., 2014).

Studies report higher rates of unintended pregnancies among HIV-positive women than other women. HIV positive women may have more trouble accessing voluntary abortion services due to double stigma (Orner et al., 2011). Not only of being HIV positive, but also being pregnant and wanting to terminate the pregnancy, each of which is a stigmatizing condition in many communities (Ahmed, 2010).

A study conducted in the KwaZulu-Natal province reported that HIV positive women were often discouraged from gaining access to public health abortion services. This in turn causes a sense of distress when it comes to requesting for a voluntary abortion at the facilities (De Bruyn, 2006). The study further found that the women fear being subjected to judgment by health care providers if they requested a voluntary abortion. Furthermore the women in the study had reservations as to the quality of post-abortion care they would receive. Moreover, some indicated that the procedure would only be offered to them if they gave consent to being sterilized thereafter (De Bruyn, 2004).

The disclosure of one's HIV status is not compulsory to get a voluntary abortion in South Africa (Department of Health, 2011). The HIV status of women seeking abortions may not be known by a provider and she would therefore receive the same treatment and care as non-HIV positive women (Seepe, 2011). The Department of Health indicates that it is unable to specify if the high prevalence of HIV/AIDS contributes to the high number of voluntary abortions performed in the country (Department of Health, 2009). HIV testing is voluntary in South Africa thus implying that most women do not have an HIV test before their

pregnancies are terminated (Seepe, 2001). Similar to HIV status, having recently suffered an injury or an illness is also a predictor of voluntary abortion in the country.

Having recently suffered any illness or injury among women who terminated a pregnancy has been found to be a significant factor of voluntary abortion. According to the current study women who had recently suffered from any illness or injury were significantly less likely to be at risk of having a voluntary abortion than women who were had not suffered a recent illness or injury. Relevant literature or studies that speak to illness or injury as a predictor of voluntary abortion is scarce. Mcgill (2006) indicates that there is a belief that abortion is often the best choice for women who suffer from mental illness. Women who are mentally ill are often viewed as being too vulnerable for childbirth. Mcgill (2006) argues that a voluntary abortion poses more of a threat to the women's existing mental health problems.

Chapter 6: Recommendations and Conclusion

6.1 Recommendations:

The current study has found that there are a number of determinants that influence a woman's decision to terminate a pregnancy. These include age, unemployment, HIV status, marital status. The following section will be giving the policy and research recommendations for the current study.

6.1.1 Research Recommendations:

Firstly the current study has provided a base for future studies to build on. The current study examined the trends, differentials and determinants of voluntary abortion in a quantitative manner. It is therefore recommended that future qualitative studies are conducted try to understand the direct experiences of women who undergo voluntary abortion in the country. From the current study, it can be established that young unemployed women in their youth should be focused on to understand the driving motivation and first-hand experience of women undergoing voluntary abortion.

From the current research study it is also recommended that further research be conducted in provinces that did not report any voluntary abortions. Often if a voluntary abortion is not reported, it may have been done illegally and adequate government health facilities may not be utilised for the service. It is in this sense that further research on voluntary abortion be conducted in the Limpopo Province, Free State, North West and Northern Cape. There is a need to research why voluntary abortion reporting is virtually non-existent in the above mentioned provinces. Culture and attitudes around and towards voluntary abortion need to be looked into to better understand why there is a high level of under reporting in these provinces. There may be stigma attached to the practise in the provinces that have a low reporting of abortion, however further research is needed to substantiate this.

The study further deduced that there is the need to understand the relationship between voluntary abortion and race in South Africa. From the percentage distribution reported in the study a valid research recommendation is that research based on the racial distribution surrounding voluntary abortion be conducted thoroughly. Research can be conducted to

understand the perceptions and beliefs surrounding voluntary abortion among the different race groups, and also find out why there is under reporting among other racial groups. Conducting such research can be important in understanding why such a differential exists when it comes to the topic of voluntary abortion in South Africa.

When the issue of abortion is expressed, the issue of choice becomes relevant. A further research recommendation would be to look into the issue of choice with regards to abortion. The decision for a woman to have a voluntary abortion can be based on age or marital status as indicated by the results of the current study. This then raises the question about who makes the ultimate decision on behalf of the woman who wants to terminate a pregnancy, a vital question that was not part of the study. For example, if a young girl is regarded too young or immature to have a child, it may be possible that the mother or a guardian or another family member may influence her decision to have an abortion. Secondly, women who are unmarried may be influenced by the partner they are currently with to terminate the pregnancy, lastly the decision to terminate a pregnancy may be a joint decision between both partners. Who is it that decides if the woman should have an abortion? These are important factors to consider when the issue of abortion is discussed in the South African context.

Furthermore, since the research does not show repeat abortions, research can be conducted that looks at contraceptive use among women who have undergone voluntary abortion. A final recommendation that comes from the current study is to look into illnesses or injuries that may lead a woman to have a voluntary abortion. There is not enough supporting literature that speaks to how an injury or an illness may cause a woman to terminate a pregnancy.

6.1.2 Policy Recommendations

The current study has played a role of informing policy makers as well as government as to how they can go about improving abortion care as well as post abortion care. As a result it is recommended that policy makers revaluate and possibly create programmes aimed at encouraging women to report and engage in safe voluntary abortion behaviour. It is evident that from the current research there are women who reside in certain provinces that do not report to having a voluntary abortion.

A possible policy recommendation is to monitor and evaluate voluntary abortion services in rural areas, mostly in provinces such as Limpopo, Free State, North West and Northern Cape. The current research found that there was no reporting of voluntary abortions in the above mentioned provinces. This is worrying as it implies that women may not be aware of voluntary abortion services available in their respective provinces. Furthermore the study also found that there are HIV positive women who terminate a pregnancy before delivery. It is in this sense that HIV prevention programs and programmes that focus on mother to child HIV transmission must consider extra abortion training and education among women. The government of South Africa has introduced a new policy wherein all HIV positive women will receive lifelong antiretroviral treatment (Department of Health, 2013). Such information needs to be better communicated to women.

Another policy recommendation that would be of much benefit to the Department of Health would be to introduce termination of pregnancy registers. The registers can be used to quantify how many women underwent a voluntary abortion, without necessarily sharing personal information in order to ensure confidentiality and anonymity of women. These registers may aid in identifying abortion clinics or providers that are prone to abortions resulting in complications.

Lastly, the current study found that a majority of women who had a voluntary abortion were unemployed. It is therefore recommended that employment issues around abortion be incorporated in employment strategies.

6.2 Conclusion

In conclusion, the current study adds to a growing body of voluntary abortion literature by creating a profile of women that would have a voluntary abortion. The study has looked at and identified the demographic and socio economic characteristics of women who voluntarily terminate a pregnancy in South Africa.

The research question that was posed in this study was “What are the determinants of women who have voluntary abortion in South Africa?” The study found that factors such as age, unemployment, youth, urban residence and cohabitation, HIV status, having recently suffered any illness and injury are leading determinants of voluntary abortion among South African women. This is evident by the multivariate model finding in Tables 5 and 6. The

study has further found that there are differentials among race and rural-urban place of residences among South African women in relation to voluntary abortion.

The study has gone on to create a profile of women who would abort a pregnancy. Though the practice is greatly limited to the extent to which women openly admit to terminating a pregnancy, the issue of voluntary abortion cannot be ignored or overlooked even though many women do not discuss it openly. Therefore this research does not include all women who have had a voluntary abortion but it does represent them. The study further explained the trend of voluntary abortion in South Africa. It is evident from the results of the current study that there were fluctuations in the number of voluntary abortion reported from 2010 to 2013. The number of voluntary abortions reported was high in 2010 decreased in 2012 and slightly increased in 2013. Voluntary abortion in South Africa can certainly be observed as a form of family planning and the results of this study should be incorporated into family planning research

This study has addressed the issue of voluntary abortion among women of reproductive ages in South Africa and has established the importance of understanding voluntary abortion in the South African context. South Africa is one of the few African countries that has legalised the practise of voluntary abortion. Voluntary abortion services are offered to women upon request in the country. It is therefore very important to monitor and evaluate not only abortion services, but also the reproductive health of women who undergo voluntary abortion by understanding the determinants of voluntary abortion. Thus in this broader context the significance of studying South Africa comes to light, especially due to the liberal policy that the country has towards voluntary abortion.

Having suffered any recent illness or injury among women has proven to be a significant factor associated with whether or not a woman will have a voluntary abortion. This research has discovered that regardless of societal beliefs around the practise of voluntary abortion, women in the country still have the need for these services. Although the current study's sample is limited to women whose pregnancies resulted in a voluntary abortion according to the General Household Survey, the importance of the findings has significant implications for policy and legislature that specifically addresses the healthcare and well-being of women undergoing the procedure.

The study proves that there is a need to create frameworks that are specifically applicable to all reproductive issues, from fertility to voluntary abortion. This study made use of a combination of the Health Belief Model as well as the Framework for Analysing maternal mortality. The study has contributed to existing literature by creating a framework that can be used to understand more on the determinants of voluntary abortion within the South African context.

The findings of the current research suggest that government and non-governmental organizations need to do more in terms of creating an enabling environment for women who would like to terminate a voluntary abortion without fear or stigma. Especially in provinces like Limpopo, North West, Northern Cape and Free State. This would assist not only in encouraging women and young girls to report and seek care in the event that they have an unintended or unwanted pregnancy, but it would also enable society as well as healthcare workers to be more compassionate and informed with regards to the physical and reproductive health of women. Furthermore this can also aid in curbing the number of illegal abortions that women may engage in due to societal pressure.

The current study poses important questions to government as to what extra steps and actions can be taken to address the issue of under reporting of voluntary abortion. Services centred on voluntary abortion in some provinces need to be improved. South Africa has made great advances in terms of trying to address the issue of voluntary abortion in terms of creating a policy and laws that are centred on improving voluntary abortion services namely the Choice of Termination of Pregnancy of 1996. The legalisation of voluntary abortion was based mostly on socioeconomic basis.

Overall, the current study has joined in on the dialogue regarding voluntary abortion. The study has further contributed to the body of research on abortion by examining the trends and differentials of voluntary abortion as well as the determinants of voluntary abortion among South African women. The results of the current study have identified characteristics of women to be targeted for safe abortion to reduce incidents and risks associated with unsafe abortion practices.

6.3 Limitations of the study

6.3.1 Study design

The current study is a cross-sectional design. Therefore it is difficult to establish the temporal sequence of the predictor and outcome variables. For example the study was unable to explain if perhaps unemployment, marital status or the place of residence of a woman is the direct cause of a voluntary abortion. Only an association between these factors can be established.

6.3.2 Survey Questionnaire

The study was not able to perform analysis on a number of variables due to them being unavailable in the General Household Survey (GHS). Variables such as religious affiliation in earlier data sets, contraceptive use among women and the desire for more children would have created a better picture around voluntary abortion in the country. Furthermore there is a lack of partner information within the survey. It is evident that a lot was known about the women in the study but not their partners. Additionally, there is lack of information on what the motivation was to get the voluntary abortion, it is not understood if a pregnancy was terminated because it is either unwanted or unintended, or maybe the partner did not want the pregnancy. Lastly, there is a lack of information as to how many abortions a woman has had. Such information would have aided in better understanding the characteristics of women who terminate a pregnancy. Additionally the type of facility is not included within the survey questionnaire which makes it difficult to establish if an abortion was conducted under safe or unsafe conditions.

6.3.3 Under-reporting

In general, due to the sensitive nature of voluntary abortion, women are less likely to report the incident. For this reason, women who do not report their abortions may be a possible limitation to this and any other study in relation to the wilful termination of a pregnancy. Women may not report their abortions for a number of reasons. Often because the practise is linked to stigma and shame due to the religious and moral connotations attached to it.

The occurrence of voluntary abortions is often under-reported in surveys and sometimes unreported or under reported even in public hospitals. Furthermore it is also impossible to have records of women who do not seek out post abortion care in public hospitals along with other facilities including private clinics (Shah & Ahman, 2009). Women may feel a sense of insecurity and not want to admit to having a voluntary abortion.

Women are often unwilling to confess to a voluntary abortion, especially when it is performed in an illegal setting thus making it difficult to have standard record of the occurrence of a voluntary abortion. When voluntary abortions are conducted in underground and concealed conditions, they may not be reported at all or they may be reported falsely as spontaneous abortions (Shah & Ahman, 2009).

Moreover under-reporting happen even where voluntary abortion is legal, at times this is due to the stigma that is related to voluntary abortion. There are many societal beliefs and stereotypes attached to voluntary abortion moreover religious groups further entrench beliefs in the broader society (Shah & Ahman, 2009). Furthermore women who are known to have a voluntary abortion are often stigmatised within the communities in which they live in (Mhlanga, 2003). Lastly, it is important to note that the generalizability of the study may have an impact on the findings.

References

Ahmed, J.D. (2010). Abortion and HIV. Northeastern University School of Law.

Althaus, A. (2000). Work in Progress: The Expansion of Access to Abortion Services in South Africa Following Legalization. *International Family Planning Perspectives,* (26) 2.

Altman,M. (2007). *"Youth Labour Market Challenges in South Africa".* Pretoria: Human Sciences Research Council.

Badenhorst, R. (2005). *Reasons for women to terminate a pregnancy: a qualitative study* (Doctoral dissertation, University of Pretoria).

Bankole, A., Keogh, S., Akinyemi, O., Dzekedzeke, K., Awolude, O., and Adewol, I. (2014). Differences in Unintended Pregnancy, Contraceptive Use and Abortion by HIV Status Among Women In Nigeria and Zambia. *International perspectives on Sexual and reproductive health, (*40) 1.

Bankole, A., Biddlecom, A., Guiella, G., Singh, S., & Zulu, E. (2007). Sexual behavior, knowledge and information sources of very young adolescents in four sub-Saharan African countries: original research article. *African journal of reproductive health*, *11*(3), 28-43.

Bateman, C. (2011). Abortion practices undermining reformist laws. *SAMJ : South African Medical Journal*, (101) 5.

Bello, B., Kielkowski, D., Heederik, D., & Wilson, K. (2010). Time-to-pregnancy and pregnancy outcomes in a South African population. *BMC public health*, *10*(1), 565.

Biddlecom, A. (2008). Adolescent fertility and reproductive health programmes in developing countries. Guttmacher Institute. http://www.un.org/esa/population [Accessed 20 September 2014]

Budlender, D., Chobokoane, N., & Simelane, S. (2004). Marriage patterns in South Africa: methodological and substantive issues. *Southern African Journal of Demography*, 1-25.

Calves, A.E. (2002). Abortion risk and decision-making among young people in urban Cameroon. *Studies in Family Planning,* 33(3), pp 249-260.

Carter, J. S., Carter, S. K., & Dodge, J. (2009). Trends in abortion attitudes by race and gender: A reassessment over a four decade period. *Journal of Sociological Research*, *1*(1).

Chitamun, S., & Finchilescu, G. (2003). Predicting the intention of South African female students to engage in premarital sexual relations: An application of the Theory of Reasoned Action. *South African Journal of Psychology*, *33*(3), 154-161.

Choice on Termination of Pregnancy Act, 1996 (Act No. 92 of 1996). Department of Health, Republic of South Africa. Pretoria: Department of Health.

Cohen, S,A. (2008). Abortion and Women of Color: The bigger picture. *Guttmacher Policy Review,* (11) 3.

De Bruyn, P.J. (1993). *The Ten Commandments.* PU for CHE, Potchefstroom.

De Bruyn, M. (2004). Living with HIV: challenges in reproductive health care in South Africa. *African Journal of Reproductive Health*, 92-98.

De Lange, N., & Geldenhuys, M. M. (2012). Youth envisioning safe schools: a participatory video approach. *South African Journal of Education*, *32*(4), 494-511.

Department of Health, Republic of South Africa. (1996). Choice on Termination of Pregnancy Act (No. 92 of 1996). Pretoria: Department of Health.

Department of Education Annual Report. (2009). Retrieved from http://www.education.gov.za/LinkClick.aspx?fileticket=8mm2QuDyiuw%3D&tabid=358&mid=1263

Department of Health Annual Report. (2011). Retrieved from http://www.gov.za/sites/www.gov.za/files/DoH_Annual_Report_2010_11.pdf

Department of Health. (2013). The South African Antiretroviral Treatment Guidelines 2013. Retrieved from http://www.sahivsoc.org/upload/documents/2013%20ART%20Guidelines-Short%20Combined%20FINAL%20draft%20guidelines%2014%20March%202013.pdf

Finer, L. B., & Henshaw, S. K. (2006). Disparities in rates of unintended pregnancy in the United States, 1994 and 2001. *Perspectives on sexual and reproductive health*, 90-96.

Gil-Lacruz, A. I., Gil-Lacruz, M., & Bernal-Cuenca, E. (2012). Socio-economic determinants of abortion rates. *Sexuality Research and Social Policy*, *9*(2), 143-152.

Gipson, J. D., Koenig, M. A., & Hindin, M. J. (2008). The effects of unintended pregnancy on infant, child, and parental health: a review of the literature. *Studies in family planning*, 18-38.

Grimes, D. A., Benson, J., Singh, S., Romero, M., Ganatra, B., Okonofua, F. E., & Shah, I. H. (2006). Unsafe abortion: the preventable pandemic. *The Lancet*, *368*(9550), 1908-1919.

Gumede, T. (2004). Why do women opt for backstreet abortions?: A sociological study. 2004. Johannesburg: University of Johannesburg.

Guttmacher, S., Kapadia, F., Naude, J. T. W., & De Pinho, H. (1998). Abortion reform in South Africa: A case study of the 1996 Choice on Termination of Pregnancy Act. *International Family Planning Perspectives*, 191-194.

Haddad, L. B., & Nour, N. M. (2009). Unsafe Abortion: Unnecessary Maternal Mortality. *Reviews in Obstetrics and Gynecology*, 2(2), 122–126.

Harries, J., Lince, N., Constant, D., Hargey, A., & Grossman, D. (2012). THE CHALLENGES OF OFFERING PUBLIC SECOND TRIMESTER ABORTION SERVICES IN SOUTH AFRICA: HEALTH CARE PROVIDERS'PERSPECTIVES. *Journal of biosocial science*, *44*(02), 197-208.

Harrison, A., Montgomery, E. T., Lurie, M., & Wilkinson, D. (2000). Barriers to implementing South Africa's termination of pregnancy act in rural KwaZulu/Natal. *Health Policy and Planning*, *15*(4), 424-431.

Hess, R. F. (2007). Women's stories of abortion in southern Gabon, Africa. *Journal of Transcultural Nursing*, *18*(1), 41-48.

Healy, L. M. (2006). Logistic Regression: An Overview. *Eastern Michigan University, College of Technology. In Proceeding of COT*, *7*(11), 30-37.

Hilbe, J. M. (2009). *Logistic Regression Models.* United States of America, CRC Press: Taylor and Francis Group.

Hochbaum, Rosenstock & Kegels, (1988). Health Belief Model. Historical Origins of the Health Belief Model. *Health Education Monographs*, 2 (4).

Hodes, R. (2013). The Medical History of Abortion in South Africa, c. 1970–2000. *Journal of Southern African Studies*, 39(3), 527-542.

Hussain, R. (2012). Abortion and unintended pregnancy in Kenya. *Issues in brief (Alan Guttmacher Institute)*, (2), 1-4.

Ikamari, L., Izugbara, C., & Ochako, R. (2013). Prevalence and determinants of unintended pregnancy among women in Nairobi, Kenya. *BMC pregnancy and childbirth*, *13*(1), 69.

Jacobs, R., & Hornsby, N. (2014). Why aren't women getting safe abortions?. *SAMJ: South African Medical Journal*, 104(12), 857-858.

Jali, M. N. (2001). Abortion-a philosophical perspective. *Curationis*, *24*(4), 25-31.

Kalyanwala, S., Zavier, A. F., Jejeebhoy, S., & Kumar, R. (2010). Abortion experiences of unmarried young women in India: evidence from a facility-based study in Bihar and Jharkhand. *International perspectives on sexual and reproductive health*, 62-71.

Koster, W. (2003). *Secret strategies: Women and abortion in Yoruba society, Nigeria*. Aksant.

Kott, A. (2011). Rates of unintended pregnancy remain high in developing regions. *International perspectives on sexual and Reproductive Health*, *37*(1), 46-7.

Macleod, C. I. & Tracy, T. (2010). A decade later: follow-up review of South African research on the consequences of and contributory factors in teen-aged pregnancy. South African Journal of Psychology, 40 (1), 18-31.

Macleod, C. (2008). Developing Principles for Research about Young Women and Abortion: A Feminist Analysis of Difficulties in Current South African Studies1. *Feminist Africa 11 Researching for Life: Paradigms and Power*.

Maluleke,T & Hadzhi,S. (2013). Gauging awareness of the right to terminate pregnancy. The Human Sciences Research Council.

Marston, C., & Cleland, J. (2003). Relationships between contraception and abortion: a review of the evidence. *International family planning perspectives*, 6-13.

Mashau, T. D. (2011). Cohabitation and premarital sex amongst Christian youth in South Africa today: A missional reflection. *HTS Theological Studies*, *67*(2), 1-7.

McCarthy, J. & Maine, D., (1992). A Framework for Analyzing Determinants of Maternal Mortality. *Studies in Family Planning*, 23(1), 23-33.

Mcgill, M. (2006). Abortion in South Africa: How We got here, the Consequences, and What is Needed. *Tydskrif vir Christelike Wetenskap.*

Mchunu, G.G., & Benghu, B.R. (2004). The knowledge and attitudes of traditional birth attendants towards HIV/AIDS and their beliefs related to perinatal care. *Curationis*, 27(17), 41–50.

Mchunu, G., Peltzer, K., Tutshana, B., & Seutlwadi, L. (2013). Adolescent pregnancy and associated factors in South African youth. *African health sciences*, *12*(4), 426-434.

Mhlanga, R. E. (2003). Abortion: developments and impact in South Africa. *British medical bulletin*, *67*(1), 115-126.

Mncwango, B., & Rule, S. (2006). Rights or wrongs? An exploration of moral values. *South African social attitudes: Changing times, diverse voices*, 252-76.

Mokgethi, N. E., Ehlers, V. J., & Van der Merwe, M. M. (2006). Professional nurses' attitudes towards providing termination of pregnancy services in a tertiary hospital in the North West province of South Africa. *Curationis*, *29*(1), 32-39.

Mokwena, R. A., & Van Wyk, N. C. (2013). Traditional healers' views on the termination of pregnancies in Mamelodi, South Africa. *Africa Journal of Nursing and Midwifery*, *15*(2), 131-143.

Morhee, R. A. S., & Morhee, E. S. K. (2006). Overview of the law and availability of abortion services in Ghana. *Ghana Medical Journal*, *40* (3).

Morroni, C., Myer, L., & Tibazarwa, K. (2006). Knowledge of the abortion legislation among South African women: a cross-sectional study. *Reproductive Health*, *3*(7), 29.

Mote, C. V., Otupiri, E., & Hindin, M. J. (2010). Factors associated with induced abortion among women in Hohoe, Ghana. *African journal of reproductive health*, *14*(4).

Moultrie, T.A., & Timæus, I.M. (2001). Fertility and living arrangements in South Africa. *Journal of Southern African Studies,* 27(2), 207–223.

Mpanza, N. D., & Nzima, D. R. (2010). Attitudes of educators towards teenage pregnancy. *Procedia-Social and Behavioral Sciences*, *5*, 431-439.

Mudokwenuy-Rawdon, C., Ehlers, V. J., & Bezuidenthout, M. C. (2005). Factors influencing post abortion outcomes among high-risk patients in Zimbabwe. Retrieved from http://hdl.handle.net/10500/6844

Murray, N., Winfrey, W., Chatterji, M., Moreland, S., Dougherty, L., & Okonofua, F. (2006). Factors related to induced abortion among young women in Edo State, Nigeria. *Studies in family planning*, *37*(4), 251-268.

Narendra, A. (2010). Implications of sex and education on abortion attitudes: a cross-sectional analysis.

Olojede, A. A., Adekunle, A. A., & Samuel, E. A. (2013). Analysis of rural literacy as a panacea for socio-economy development of Nigeria. *International Journal of Sociology and Anthropology*, *5*(9), 381.

Orner, J.P., de Bruyn, M., Barbosa, R.M., Boonstra, H., Gatsi-Mallet, J., & Cooper, D.D. (2011). Access to safe abortion: building choices for women living with HIV and AIDS.

Journal of the International AIDS Society, 14-54.

Osman, S., & Thompson, A. (2014). A preventable pandemic: Unsafe abortion in South Africa. Retrieved from: http://www.ngopulse.org/blogs/unsafe-abortion-south-africa-preventable-pandemic

Parry, M.L. (1981). Cohabitation: Social work and Law. London: Sweet & Maxwell.

Patel, C.J., & Kooverjee, T. (2009). Abortion and Contraception: Attitudes of South African University Students. *Health Care for Women International*, 30 (6), 550-568.

Patel, C. J., & Johns, L. (2009). Gender role attitudes and attitudes to abortion: Are there gender differences?. *The Social Science Journal*, *46*(3), 493-505.

Population Reference Bureau. (2011). Abortion Facts and Figures. Retrieved from http://www.prb.org/pdf11/abortion-facts-and-figures-2011.pdf.

Population Reference Bureau. (2005). Abortion Facts and Figures. Retrieved from http://www.prb.org/pdf05/unsafeabortion.pdf.

Potts, D., & Marks S. (2001). Fertility in Southern Africa: the quiet revolution. *Journal of Southern African Studies*, 27(2), 189–205.

Ravindran, J. (2003). Unwanted pregnancy: medical and ethical dimensions. *Med J Malaysia*, *58*, 23-35.

Roussow, J.P.H., Du Plessis, G.E. (1999). Unwanted fertility, contraception and induced Abortion in South Africa, 4 (1), 12-28. Retrieved from www.un.org/esa/population/publications

Samsonova, I. (2011). *The Effect of Fertility and Abortions on Female Employment Rate* (Doctoral dissertation, Central European University).

Santelli, J., Rochat, R., Hatfield-Timajchy, K., Gilbert, B. C., Curtis, K., Cabral, R., ... & Unintended Pregnancy Working Group. (2003). The measurement and meaning of unintended pregnancy. *Perspectives on sexual and reproductive health*, 94-101.

Sedgh, G., Singh, S., Shah, I. H., Åhman, E., Henshaw, S. K., & Bankole, A. (2012). Induced abortion: incidence and trends worldwide from 1995 to 2008. *The Lancet*, *379*(9816), 625-632.

Seepe, J. (2011). Shocking abortion figures. Health Systems Trust.

Seutlwadi, L., Peltzer, K., Mchunu, G., & Tutshana, B. (2012). Contraceptive use and associated factors among South African youth (18 - 24 years): A population-based survey. *South African Journal Of Obstetrics And Gynaecology*, 18(2), 43-47. doi:10.7196/sajog.504.

Shahbazi, S. (2012). The consequences of unsafe abortion: a qualitative study. *Journal of advanced nursing*, *68*(6), 1247-1255.

Shah, I., & Ahman, E. (2009). Unsafe abortion: global and regional incidence, trends, consequences, and challenges. *J Obstet Gynaecol Can*, *31*(12), 1149-1158.

Sibuyi, M. C. (2004). Provision of abortion services by midwives in Limpopo Province of South Africa. *African Journal of Reproductive Health*, 75-78.

Singh, S., Sedgh, G., & Hussain, R. (2010). Unintended pregnancy: worldwide levels, trends, and outcomes. *Studies in family planning*, *41*(4), 241-250.

Singh, S., Wulf, D., Hussain, R., Bankole, A., & Sedgh, G. (2009). *Abortion worldwide: a decade of uneven progress*. Guttmacher Institute.

South African Department of Health. (2005).Termination of Pregnancy Update Cumulative Statistics Through 2004. Pretoria, South Africa: Department of Health.

South African Department of Health. (2011).Termination of Pregnancy Update. Pretoria, South Africa: Department of Health.

Statistics South Africa. (2011). Mid-Year Population Estimates: Statistical Release P0302. Retrieved from: http://www.statssa.gov.za/publications/P0302/P03022011.pdf

Statistics South Africa. (2011). Estimation of fertility from the 2007 Community Survey of South Africa. Retrieved from: http://www.statssa.gov.za/publications/Report-03-00-04/Report-03-00-042010.pdf

Statistics South Africa. (2012). General household survey. Retrieved from: http://www.statssa.gov.za/publications/P0318/P0318August2012.pdf

Statistics South Africa. (2012). The General Household survey- Metadata. Retrieved from http://www.statssa.gov.za/publications/P0341/P03412012.pdf

Statistics South Africa. (2013). The General Household survey- Metadata. Retrieved from http://www.statssa.gov.za/publications/P0341/P03412012.pdf

Statistics South Africa. (2014). The General Household survey- Metadata. Retrieved from http://www.statssa.gov.za/publications/P0341/P03412012.pdf

Suffla, S. (1997). Experiences of induced abortion among a group of South African women. South African Journal of Psychology, 27, 214-222.

UNFPA. (2014). Sexual and Reproductive Health . Retrieved from: http://www.unfpa.org/

United Nations. (2015). Millennium Development Goals. Retrieved from http://www.un.org/millenniumgoals/

Varkey, S.J. and Fonn, S. (2000). How far are we? Assessing the implementation of abortion services: a review of the literature and work-in-progress. *Womens Health Project*. Department of Community Health, University of the Witwatersrand.

Varkey, S. J. (2000). Abortion services in South Africa: available yet not accessible to all. *International Family Planning Perspectives*, *26*(2), 87-88.

Vieira, E. M. (2009). Frequency and characteristics of induced abortion among married and single women in São Paulo, Brazil. *Cadernos de Saúde Pública*, *25*(1), 179-187.

Walker, E. (2007). The responses and understandings of a group of primary health care nurses, based in Soweto, to the issue of abortion. University of the Witwatersrand.

Webb, D.(2000). Attitudes to "kaponya mafumo" the terminators of pregnancy in urban Zambia. Health *Policy and Planning (UNICEF)*, 15(2), 168.

Wheeler, S. B., Zullig, L. L., Reeve, B. B., Buga, G. A., & Morroni, C. (2012). Attitudes and intentions regarding abortion provision among medical school students in South Africa. *International perspectives on sexual and reproductive health*, 154-163.

World Health Organisation. (2014). Preventing unsafe abortion. Retrieved from http://www.who.int/mediacentre/factsheets/fs388/en/.

World Health Organisation. (2006). Millennium Development Goals (MDGs). Retrieved from http://www.who.int/topics/millennium_development_goals/en/.