TO ASCERTAIN WHY SOME WOMEN DELAY IN SEEKING

TERMINATION OF PREGNANCY (TOP) FOR UNWANTED

PREGNANCIES IN LEJWELEPUTSWA DISTRICT (DC18),

FREE STATE.

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Abortion complications



# **ABSTRACT**

TO ASCERTAIN WHY SOME WOMEN DELAY IN SEEKING TERMINATION OF PREGNANCY (TOP) FOR UNWANTED PREGNANCIES IN LEJWELEPUTSWA DISTRICT (DC18) FREE STATE.

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Women of child-bearing age sometimes fail to plan for pregnancies. Often they discover that they are pregnant and are not prepared or cannot afford to raise the child.

Before 1996 there was no choice for women as regards pregnancies, all pregnancies must be carried to term and delivered except on health grounds and with stringent conditions. However after the TOP act was enacted in 1996, women were allowed a choice of TOP up to and including 20 weeks of pregnancy.

Regardless of the availability of choice of TOP, some pregnant women still present late (after 12 weeks) for TOP when the risks of complications and costs are higher.

Women who present late for TOP usually have to be admitted to a district or regional hospital and managed. The costs at such institutions are high. TOPs

before 12 weeks (early TOP) are done in a primary health care (PHC) facility (TOP center) and no admission is required hence less cost. Complications of early TOP are also very mild and rare.

In Lejweleputswa district there is only one TOP Center (Kopano TOP Clinic) and this serves both Lejweleputswa and the Northern Free State districts. Early TOPs (less than 12 weeks) are done and completed at this center. Late TOPs (above 12 weeks but not more than 20 weeks) are initiated at this TOP center and referred to district or regional hospitals nearest to the patient's home, in both districts for completion.

**Problems -** An increasing number of women are seeking TOP service at late stages of pregnancies and the incidence of severe complications like severe bleeding, retained placenta, infection, amniotic fluid embolism, death etc, are increasing. The hospital's bed space and budget are stretched to the limit due to the influx of late term TOP to the hospitals.

Lack of manpower, especially doctors, in these hospitals also create some problems, as the few doctors available have to attend to other ill patients as well. Sometimes bleeding TOP patients are transfused with blood and placed on a waiting list for theatre and this often increases the risk of complications. The emotional effect of late TOP on hospital staff (doctors and nurses) are enormous as the expelled fetus are much more developed than in early TOP where no fetus is seen at evacuation with simple Manual Vacuum Aspiration (MVA)

**Purpose of the Research** -This study was undertaken to find out why some women choose the risky stage of pregnancy (Late term TOP) to seek TOP service.

**Study design:** This is a quantitative study with cross sectional analytic survey design.

**Data collection:** A standardised questionnaire was used. Questionnaires were given to both early and late TOP cases during pre-counseling session.

**Data analysis:** Early and late TOP case were analysed separately and then compared via cross-tabulations. The data were analysed in CDC EpiInfo 2002 and included frequencies and cross-tabulations for categorical data and means and variance for continuous data.

Odds ratios and 95% confidence interval were the measure of association.

Uncorrected Chi-square tests or Fishers exact was used to test for association between variables of interest.

**Results -** During the study period February 3, 2004 to May 31, 2004; 344 (36.4%) of women coming to Kopango TOP Clinic for TOP presented before 12 weeks gestation, 514 (54.4%) from 12 to 20 weeks gestation and 87 (9.2%) after 20 weeks gestation. The study found that family total annual income of less than R10 0000 was associated with delay in presenting for pregnancy (p-value=0.001, 95% CI=1.39-3.81, RD = 0.21). Students were also found to be

more likely to present late for TOP compared to other groups (p-value 0.046, 95% CI=0.98-2.78, RD=0.13).

Access to TOP facility was found to be a significant predictor of late TOP, with clients living further than 50km from TOP center more likely to present late (p=value=0.012, 95% CI= 1.12-3.25, RD= 0.16). Ignorance of pregnancy symptoms and signs, and wrong perception of safest time for TOP were found to be contributing factors in late presentation for TOP.

**Conclusion** - The study concluded with recommendations for interventions to be implemented by the department of health as regards health promotion, sex education in schools, and TOP service review in terms of access and staffing.

September 2005

### **DECLARATION**

I declare that *To ascertain why some women delay in seeking termination of pregnancy (TOP) for unwanted pregnancies in Lejweleputswa district (DC18) Free State* is my own work, that it has not been submitted for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged by complete references.



**OLUGBENGA JOHN AKINBOHUN** 

**September 2005** 

SIGNED: .....

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# **CHAPTER 1**

### INTRODUCTION AND BACKGROUND

#### 1.1 TOP in South Africa.

In 1996 the government of South Africa decided to grant women the right to self-determination as regards pregnancy. This was expressed in the "Choice on Termination of Pregnancy Act No 92 of 1996" which came into effect on February 1, 1997 (Choice on Termination of Pregnancy Act 1996). This gesture is in line with the Bill of rights, section 12 (2) a, b and section 27 (1) a, which provides all South Africans the right to make reproductive decisions, the right to security in, and control over their bodies, and access to reproductive health care services (RRA 1998).

Until 1975 when abortion and sterilization Act 2 of 1975 was implemented, abortion was basically illegal in South Africa. Due to it's over specification, the 1975 Act did not increase access to safe abortion services and it also failed to improve the reproductive health of South African women, contributing to morbidity and mortality as a result of unsafe abortions. With all these problems it was clear that South Africa needed a new abortion law. The new law which came into effect on February 1, 1997, made it much more possible for more women to get a legal abortion. Since it was introduced, a large number of

women now have access to legal abortion services which they never had before (NDOH 2002).

Prior to the Act of 1996, women were not allowed to demand abortion. Abortion was legal on only very limited grounds. The previous abortion and sterilization law (Act 2 of 1975) states that abortion can only be performed:

- 1. Where it is deemed that there is a permanent threat to the physical health of the woman.
- 2. Where it is deemed that there is a permanent threat to the mental health of the woman.
- 3. Where there is a risk that the child will be severely mentally or physically disabled.
- 4. In the case of rape or incest.
- 5. Where the woman is designated as incapable of looking after children because of a permanent mental handicap.

With this Act, TOP in South Africa was available to a small group of women and required a lengthy process of application to the relevant authorities. Access to legal termination was therefore limited. The majority of women did not even attempt to access legal TOP, resulting instead to illegal and often dangerous methods of abortion (RRA 1998).

Since the promulgation of the 1996 Act, the government has committed a lot of resources to providing termination of pregnancy services and ensuring equitable access to these services. Accredited providers in the private sector were also authorized to provide TOP services for women who prefer private attention and can afford the cost.

It has been estimated that about 46 million abortions occur each year globally. Of these abortions, 20 million are performed under unsafe conditions because of unsanitary circumstances and dangerous methods of self-inducement. An estimated 13% of global maternal mortality is due to unsafe abortion (World Health Organization 1998a). Abortion is one of the five leading causes of maternal mortality in the world.

An unplanned and unwanted pregnancy can occur for a number of reasons. The WHO estimates that between 8 and 30 million unplanned pregnancies are the result of inconsistent or incorrect use of contraceptives, lack of access to family planning information and supplies, as well as, pressure from the sexual partner, contribute to TOP. A wanted pregnancy may become unwanted due to health problems, financial difficulties and abandonment. Religious and cultural differences can also influence the woman's decision about her pregnancy (WHO 1998).

According to the 1996 Act, all women in South Africa, irrespective of age,

location and socioeconomic status can choose to terminate a pregnancy within the first 12 weeks on demand and thereafter under particular circumstances.

The main objective is to reduce infections and the number of deaths due to illegal "backstreet" abortions.

A trained midwife or a medical practitioner could legally terminate pregnancy less than 12 weeks at a primary health care facility. The process of TOP at this stage involves counseling of the woman making the request to assist her to have an informed decision after all alternatives to TOP would have been presented to her. For women choosing TOP, the procedure involves giving tablets of Misoprostol (Cytotec) to the women to be inserted vaginally and the procedure is completed a few hours later by manual vacuum aspiration (MVA). The whole exercise can be completed in a day with minimal bleeding or complication (DOH 1999). Termination of pregnancy can also be done after 12 weeks gestation up to and including the 20<sup>th</sup> week of pregnancy, under limited conditions (including if the continued pregnancy would affect the social or economic circumstances of the mother) by a medical practitioner. This category of termination requires hospital admission, and complications like bleeding are more serious and common than when done earlier, before 12 weeks (RRA, 1998).

According to the Act, Pregnancy after 20 weeks maybe terminated if a medical practitioner, after consultation with another medical practitioner or midwife, is of the opinion that continued pregnancy would endanger the woman's life or if

there was a risk of injury to or malformation of the foetus.

(Choice on Termination of Pregnancy Act 1996).

In South Africa, the Health System Trust (HST) did a review of termination of pregnancy in 1998. In this review a total of 69 894 TOPs were reported in the first 2 years of passing the act. There is wide variation in the numbers of TOPs performed across the Provinces. The statistics as at 1998 show that 49% of all TOPs were done in Gauteng and only 10% in the NorthWest.

According to the Department of Health statistical notes (NDOH 2001), by the end of 2000, more than 161 867 terminations had been performed since February 1997. Almost a third (51 132) of these terminations were performed in 2000 only (As shown in Table 1A below). Approximately 55% of the terminations were requested by women above 18 years of age, 8% of the women were below 18 years and 37% unknown age. Gauteng Province does not do an age group breakdown and therefore contributes largely to the 37% of women of unknown age. It should also be noted that in the four years of implementing TOP, the number of terminations performed has almost doubled (NDOH 2001).

In general, Provinces are currently working on improving service delivery and accessibility. As shown in Table 1A below, Gauteng Province constitutes the largest proportion (about 41%) of all the TOPs performed nationally since 1997. In Provinces that are largely rural e.g. Northern Province (NP), Eastern Cape (EC) and Kwazulu–Natal (KZN), culture and infra-structural difficulties (e.g.

transport, communications, telecommunications, etc) impact on access to TOP facilities.

It cannot be concluded that the number of termination equals the number of individuals since the frequency of terminations per one woman is not documented. By looking only at the number of TOPs performed in each Province, one might think Gauteng has the largest proportion of its women going for TOPs. However, the rate per 100 000 population indicates that Free State (FS) (754/100 000 women) had the highest rate of its women presenting for TOP (Table 1A). Gauteng comes second with an estimated 676 terminations per every 100 000 women. Gauteng Province also has the highest number of women across the country, as indicated in Table 2E above. It is estimated that nationally, 428 in every 100 000 South African women (0.4%) presented for TOP in the year 2000.

**TABLE 1A: Tops Performed In South Africa By Province, 2000** 

PROV.	Population estimates	TOPs performed	TOPs/100 000 Population (women)
WC	1 184 667	6717	567
EC	1 813 277	3265	180
NC	238 966	615	257
FS	775 225	5843	754
KZN	2 521 656	11590	460
NW	963 062	2329	242
GP	2 205 122	14912	676
MP	823 044	3728	453
NP	1 428 886	2133	149
RSA	11 953 875	51132	428

- These are 2000 mid-year population estimates of women in childbearing age (15-49yrs)
- Data for TOPs performed and reported as in May 2000
- Source : National Department of Health. South Africa 2000

# **1.2** TOP in the Free State.



The Province had nine designated services of which five (56%) were functional. There was one private designated service, which was functional. On average 255 terminations were performed each month. The majority (69%) of these were early terminations. The private sector hospital performed early terminations only. In the public sector waiting times ranged from one to seven days due to early terminations being performed once weekly in four of the five services. Late terminations were usually done almost immediately. The private sector hospital offered a same day service. The province ranked among the bottom three based on numbers of designated and of functioning facilities. However, geographical access was somewhat better, and it ranked five and four respectively for the

proportion of women living within 50km of a first and second trimester service.

Overall it ranked first (NDOH 2001) on the number of TOPs performed per 100 000 women. (NDOH 2000).

### 1.3 TOP Reporting System.

There are two forms currently used to notify every termination performed in South Africa. The forms were legislated by the department of health when the Act was passed in 1996. These forms are to be completed by the medical practitioner or a registered midwife performing the procedure.

One of the forms (referred to as annexure A in the Act) is for general information collection and has to be completed in all cases. The other form (referred to as annexure B in the Act) is about consent to termination for a minor (in the Act, defined as below 14 years), a woman who is mentally disabled or not in a conscious state of mind (coma). In such cases, both forms have to be completed (NDOH 2002).

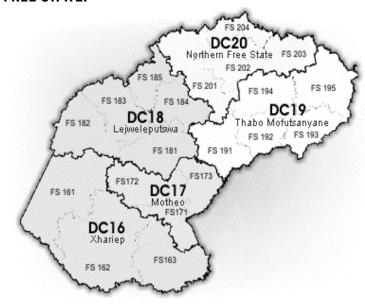
# **1.4** Description of the Research Setting.

This study was carried out in Kopano TOP center, which is located in Welkom, Lejweleputswa district (District DC18) Free State South Africa. Free State is divided into 5 health districts of which Lejweleputswa is one. See Map Below (Figure 1

Figure 1

# GEOGRAPHICAL INFORMATION

#### **FREE STATE:**



Source - http://fsgis.fs.gov.za/servlet/com.esri.esrimap

The Free State is divided into 5 districts. The south consists of Xhariep and Motheo, the east Thabo Mofutsanyane and the north Lejweleputswa and Northern Free State.

Figure 2

LEWJELEPUTSWA DISTRICT:



Source - <a href="http://fsgis.fs.gov.za/servlet/com.esri.esrimap">http://fsgis.fs.gov.za/servlet/com.esri.esrimap</a>

The total population of Free State is 2,706,780 while Lejweleputswa district has a population of 657,014 as at November 2004. (See Table 1D). 51% of this population in DC18, are females. Lejweleputswa district (Figure 2) is further divided into 5 municipalities: Masilonyana, Matjhabeng, Nala, Tokologo and Tswelopele municipalities. Welkom is the district capital and falls within Matjhabeng Municipality, which has a total population of 408,166, and is by far the largest municipality in Lejweleputswa district (Table 1E).

Lejweleputswa district is situated in the northwestern part of the Free State and covers an area of 31686 square kilometers. It is estimated that there are approximately 184470 households in the Lejweleputswa district (*Lejweleputswa IDP report 2004*). The district consists of 18 towns.

**Table 1B:** Population of Lejweleputswa district.

Municipalities	Male	Female	Grand Total
DC16: Xhariep District Municipality	66,521	68,733	135,254
DC17: Motheo District Municipality	346,409	381,852	728,260
DC18: Lejweleputswa District Municipality	321,669	335,344	657,014
DC19: Thabo Mofutsanyane District Municipality	336,725	389,210	725,935
DC20: Northern Free State District Municipality	226,329	233,987	460,317
Grand Total	1,297,654	1,409,126	2,706,780

Last updated on Thursday, November 25, 2004

Space-Time Research Online support: support@str.com.au

Space-Time Research Web page: www.str.com.au

Source: Statistic South Africa. 2004

**Table 1C**: Population of Municipalities in Lejweleputswa district.

Municipality	Total			Grand
	Male	Female	Total	total
Fs.181	32.589	31.815	64.405	64.405
Masilonyana				
FS.182	15.905	16.558	32.462	32.462
Tokologo				
FS.183	25.893	27.820	53.714	53.714
Tswelopele				
FS.184	200.375	207.791	408.166	408.166
Matjhabeng				
FS. Nala	46.912	51.354	98.265	98.265
Grand Total	321.674	335.338	657.012	657.012

Last updated on Thursday, November 25, 2004

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Source: Statistic South Africa. 2004

The population density of the district reflects an average of 25.32 people per square kilometer. Matjhabeng municipality is the densest area with 495 people per square kilometer and Tokologo municipality with the lowest density of 6.71 people per square kilometer (Lejweleputswa IDP report 2004).

The economic profile of the district is dominated by mining and agriculture. The impact of the mining sectors is mainly situated in the densely populated urban areas while the main impact of the agricultural sector is the surrounding rural areas. Apart from moderate industrial activities in the main towns, very little industrial activity is taking place in the rest of the district apart from Hennenman and Bothaville (*Lejweleputswa IDP report 2004*).

A high level of illiteracy exists in the district especially in the rural areas. The transport of learners in the rural areas is a problem, as learners have to travel long distances by foot to school. The lack of quality education and accessibility in the areas is causing parents to relocate to urban areas with consequent social problems.

The health service network in the district comprises of one regional hospital, 5 district hospitals and 45 primary health care clinics. Mobile clinics are operating in the rural areas and faced with problems of traveling long distance to deliver service with consequent low frequency of visits to service points.

There is an inadequate number of social workers and counseling services and

facilities in the district to deal with problems such as alcohol and substance abuse, family violence, child abuse, trauma and crime incidents, mental disorders, teenage pregnancy and other welfare problems. The Matjhabeng municipality has the 2nd highest HIV infection rate in the country and infection rates as high as 50% has been detected in some areas in the district (*Lejweleputswa IDP report 2004*). The high incidence of HIV is probably due to poor education, poor counseling services, unemployment, migrant labour etc.

Kopano TOP center is the only primary health care facility where TOP is done (early TOP) or initiated (late TOP) in this district. Northern Free State (District DC.20) a neighbouring district with a population of 460,317 has no functioning TOP center as at the time of this study and as such also makes use of Kopano TOP center for their TOP cases.

Early TOP (less than 12 weeks) are initiated and completed at Kopano TOP center. On the other hand late TOP are initiated (counseling and provision of Cytotec tablets) at Kopano TOP center and then clients are referred to their nearest district or regional hospital.

#### 1.5 Problems.

A. Complications and cost are high for late TOP. It is easier and cheaper for the system to cope with early termination of pregnancy than for late TOP, but more and more women are presenting for TOP when they are already at the late stage

(more than 12 weeks of pregnancy).

The cost of terminating a 1<sup>st</sup> trimester pregnancy at secondary level hospital is 26% more when compared to primary level, and if done at tertiary level it costs 133 % more. Similarly, the cost would increase by 89% if 2<sup>nd</sup> trimester abortions were provided at tertiary level (de Pinho, McIntyre et al. 1997). It is far safer for women and cheaper for the government to provide early TOP at primary health care facility than to provide late TOP at any hospital.

Complications of late abortion include complication of anaesthesia, post-abortion triad (pain, bleeding and low grade fever), haematometria, retained products of conception, uterine perforation, bowel and bladder injury, cervical laceration, and disseminated intravascular coagulation (DIC). Frequency of complication depends on gestational age. For early abortion the complication rate is less than 6% while in late abortion it is up to 50 % or higher (Gaufberg SV, et al. 2003). B. Many TOP patients report for service at the late stage of pregnancy. In Kopano TOP center, two trained nursing sisters with midwifery qualifications and one session doctor render service to TOP clients. Two assistant nurses assist the nursing sisters. The center initiates and completes early TOP. No admission is required and incidence of complications is very rare. Pre and post procedure, counselling of the clients is done by the nursing sisters. Late TOP's on the other hand are only initiated in Kopano center. Here precounseling is done and once the client chooses TOP, she is given tablets (Cytotec) to insert in her vagina. A letter of referral to the nearest hospital is

then issued to her.

The problems with late TOP in this situation are numerous. There is transport problem from client's home to hospital, bleeding before arrival at hospital may be excessive, beds at hospitals are limited and clients may not be attended promptly, uterine evaluation procedures for these clients may be postponed for some days due to shortage of personnel or congested theatre list. This may necessitate blood transfusion for the patient pending uterine evacuation. The patient's admission in the hospital puts strain on her family and job. She may develop infections and other complications.

In Kopano TOP center only about 45% of women present for TOP early in their pregnancy (less than 12 weeks) while about 40 % present after 12 weeks up to 20 weeks. About 15% still seek TOP after 20 weeks. This scenario translates into unnecessary and avoidable expenditure on late termination of pregnancy on the part of the department of health and avoidable risks of complications of TOP on the part of the women concerned.

# 1.6 Purpose Of The Research.

This study intends to find out why women do not decide on TOP early enough whenever they do not want to continue with their pregnancy. It is hoped that the findings of this research will assist in efforts to decrease the number of late TOP cases, with the associated complications, in Lejweleputswa district.

#### 1.7 Aim Of The Research.

To assess the reasons for late stage TOP by women in Lejweleputswa district Free State, South Africa.

## 1.8 Objectives.

- 1.To confirm the population of women seeking TOP service in Lejweleputswa district that present for the first time after 12 weeks of pregnancy.
- 2. To identify risk factors and causes for late TOP in Lejweleputswa district, by comparing early and late presenters with regard to:
  - a. Socio-demographic factors, such as education, age, income, marital status.
  - b. Knowledge of family planning.
  - c. Awareness of TOP service and
  - d. Influence of husband/boyfriends in the TOP decision-making.
- 3. Make recommendations to district health management and department of health on the problems of late TOP.

#### 1.9 Definition of Terms.

**ABORTION** – The WHO defines abortion as the induced or spontaneous loss of a pregnancy prior to the 22<sup>nd</sup> week of gestation or, if the gestation is not known, where foetus weighs less than 500g.

**Incomplete Abortion** - Refers to the clinical situation when only parts of the products of conception have been expelled, the remainder being retained in the uterine cavity.

**Unsafe Abortion** – Termination of pregnancy (induced or spontaneous) either by person lacking the necessary skills or in an environment lacking the minimum medical standards or both (WHO 1992).

**Illegal Abortion** – An abortion induced or performed outside the provision of the choice on termination of pregnancy Act (Act No 92 of 1996), outside of designated health service facilities, or by persons who are not registered to perform abortions.

**Therapeutic Abortion** (or elective termination of pregnancy) - The deliberate induction of abortion or intentional ending of a pregnancy by medical means.

**Trimester** – a period of 3 months

Foetus/fetus – an unborn child

**Embryo** – a developing ovum during the early months of gestation.

**Gestation** – or Cyesis means pregnancy.

# **CHAPTER 2**

### LITERATURE REVIEW

## 2.1 History of Abortion.

It appears fashionable in most historical write-ups to firstly explore the Biblical origin of occurrences or life issues that besiege man in his existence on this planet. However, in the case of abortion, no particular instance could be quoted from the Bible to show the origin of the phenomenon of abortion. Careful analysis of the Bible could also not exactly show any direct support or opposition to abortion. Most critiques of abortion are only able to quote Biblical injunctions on murder and this has been the cause of endless debates on this topic.

In the absence of any lead from the Bible, various historians and authors have made efforts to gather pieces of stories from ancient literatures and folklores to support their viewpoints on the origin of abortion. A search for information on the history of abortion in the Encyclopedia gave a summary of historical views. According to the Encyclopedia (2005), "Abortion induced by herbs or manipulation was used as a form of birth control in ancient Egypt, Greece, and Rome and probably earlier. In the Middle Ages in Western Europe abortion was generally accepted in the early months of pregnancy. However, in the 19th century opinion about abortion changed. In 1869 the Roman Catholic Church

prohibited abortion under any circumstance. England and the United States of America passed stringent antiabortion laws in the 19th century." (Encyclopedia 2005).

In primitive tribal societies, abortions were induced by using poisonous herbs, sharp sticks, or by sheer pressure on the abdomen until vaginal bleeding occurred. The ancient Chinese and Egyptians had their methods and recipes to cause abortion, and Greek and Roman civilizations considered abortion an integral part of maintaining a stable population. The Greeks and Romans had various poisons administered in various ways, including through tampons, to procure abortion. (CCT1995)

Literature review shows that Socrates, Plato and Aristotle were all in support of abortion. Even Hippocrates, who spoke against abortion because he feared injury to the woman, recommended it in some circumstances by prescribing violent exercises. Roman morality placed no social stigma on abortion. (CCT1995).

# 2.2 Legal Abortion - Current Global Trend.

Many countries are still undecided on whether to liberalise abortion laws. At the moment, more than 61% of the world's people live in countries where induced abortion is permitted either for a wide range of reasons or without restriction as to reason. In contrast, 26 % of all people reside in countries where abortion is generally prohibited. South Africa is one of the 54 countries (40.5% of world

population) where abortions are allowed without restriction as to reason. (AGI 2004).

Abortion remains prohibited or restricted in most Muslim countries in Asia, and in Latin America and Africa. (AGI 2004).

In the United States of America (USA) laws regarding how late in the pregnancy elective abortion can be performed vary from state to state. In the USA, about 25% of all pregnancies are ended by elective abortion, making it one of the most common surgical procedures performed. (AGI 2004).

#### 2.3 Abortion methods.

Available methods for abortion include use of surgery (surgical evacuation) and use of drugs. The method used depends in part on how long a woman has been pregnant. The length of the pregnancy may be hard to estimate if any bleeding has occurred after conception, if the woman is overweight, or if the uterus points backwards rather than forward. In these situations, ultrasonography is usually recommended to estimate the length of pregnancy.

Surgical evacuation involves removing the contents of the uterus through the vagina. It is used for about 95% of abortions. Different techniques are used depending on the length of the pregnancy.

A technique called manual vacuum aspiration (MVA) or suction curettage is almost always used for pregnancies of less than 12 weeks. Typically, doctors

use a small flexible tube attached to a vacuum source, usually vacuum syringe (in South Africa). The tube is inserted through the opening of the cervix into the interior of the uterus, which is then gently and thoroughly emptied by vacuum suction. Sometimes this procedure does not terminate the pregnancy, especially in the first week after the menstrual period is missed.

For pregnancies of 4 to 6 weeks suction curettage can be performed with little or no dilation of the cervix, because a small suction tube can be used. For pregnancies of 7 to 12 weeks, the cervix is usually dilated because a larger suction tube is used. To reduce the possibility of injury the cervix, a doctor can use natural substances that absorb fluids such as dried seaweed stems (Laminara) rather than mechanical devices. Laminara are inserted into the opening of the cervix and left in place for at least 4 to 5 hours usually overnight. As the laminara absorb large amounts of fluids from the body, they expand and stretch the opening of the cervix. Drugs such as prostaglandins can also be used to dilate the cervix. Mistoprostol (cytotec) is used for this purpose in South Africa.

For pregnancies of more than 12 weeks, a technique called dilation and evacuation is commonly used. After the cervix is dilated, suction and forceps are used to remove the fetus and placenta. The uterus may be gently scraped to make sure everything has been removed. This technique results in fewer minor complications than do the drugs used to induce abortion. However for

pregnancies of more than 18 weeks dilation and evacuation can cause serious complications such as damage to the uterus or intestine.

(Mark H. Beers et al. 2005).

## 2.4 Late Term TOP in Europe and the USA.

Who has abortion? Every women of childbearing age could be pregnant and may also decide at one time or the other to have elective TOP. However statistics show that over 60% of abortions are among women who have had one or more children. In the USA 52% women obtaining abortion are younger than 25, women aged 20-24 obtain 33% of all abortions, and teenagers obtain 19%, black women are more than 3 times as likely as white women to have an abortion, Hispanic women are 2 ½ times likely. 21% of women who have abortions are married.

On average (USA) women give at least three reasons for choosing abortion, 75% say that having baby would interfere with work, school or other responsibilities, about 66% say they cannot afford a child, and 50% say they do not want to be a single parent or are having problems with their husband or partner. (AGI 2000)

Historically, abortions first became legal in the USSR in 1920, followed by Sweden, Denmark, and Iceland in 1930. In Britain, abortion was considered a felony during the 19th century. During the 20th century, however, the medical profession began to seek a change in the law to protect doctors who tried to

save the lives of mothers. In 1967 the Abortion Act was introduced, which states that abortions could be performed for pregnancies up to 28 weeks of gestation, provided that two medical practitioners are in agreement that the legal grounds for terminating the pregnancy have been met. (De Marquiegui A, et al. 2000).

Zimmermann et al. (1997) found second trimester abortion to be a major challenge to TOP services in some parts of Europe despite the universal availability of urine pregnancy tests and ultrasound that could detect pregnancy early enough for intervention.

In a review of late term abortion in USA by Gans Epner et al. (1998), the following were observed in the USA setting:

The vast majority (95%) of induced abortions are performed at or before 15 weeks gestation i.e. in the first or very early second trimester (Table 2A).

Table 2A: Induced Abortion, 1992

Gestational			
Age, Wk	No.	Procedures, %	
0 - 8	798 850	52	
9-10	377 570	25	
11-12	181 960	12	
13-15	94 060	6	
16-20	60 040	4	
21+	16 450	1	
Total	1 528 930	100	

<sup>\*</sup>Data are from the Alan Guttmacher Institute, as presented in Gans Epner et.al (1998).

The estimated number of induced abortions at 21 weeks or more is shown in Table 2B

**Table 2B:** Estimated number of Late 2<sup>nd</sup> and 3<sup>rd</sup> trimester Induced Abortion, 1992

Gestational		Procedures
Age, wk	No.	at >=21 weeks, %
21-22	10 340	63
23-24	4 940	30
25-26	850	5
> 26	320	2
Total	16 450	100

<sup>\*</sup>Data are from the Alan Guttmacher Institute, as presented in Gans Epner et.al (1998)..

According to the estimates, two thirds of abortions beyond 20 weeks are performed between 21 and 22 weeks. The number of abortions performed after 26 weeks nationwide in USA was estimated to be between 320 and 600 which account for 2% of late 2<sup>nd</sup> and 3<sup>rd</sup> trimester abortions but insignificant when total induced abortions is taken into consideration.

The Gans Epner et al. (1998) review also showed that in 1994, teenagers were more likely that older women to have an abortion at 16 weeks of gestation or later. 17% of women 19 years of age and younger who had an abortion in 1994 had the procedure performed at 13 weeks of gestation or later, compared with 11% of women 20 years of age and older. Among women who had an abortion in 1994, 15% of women who were black or other races had the procedure during the second or third trimester compared with 10% of white women who did so. There were no differences between Hispanic and non-Hispanic women (12,8% and 12,6% respectively).

In addition, the review by Gans Epner et al. (1998) also showed that little research had been done on reasons for induced abortion in second trimester through 1987 in USA. In 1987, the Alan Guttmacher Institute (AGI), New York, conducted a survey of patients in 30 abortion facilities in which at least 400 abortions were performed annually and in which they performed abortions at 16 or more weeks of gestation. The 30 abortion facilities represented each of the 4 regions of the country and the average patient response rate was 80%. Of the 1900 women in the survey, 420 (22,1%) had been pregnant for 16 weeks or more.

When asked about the most important reasons for their delay in having an abortion, 71% reported that they did not recognise that they were pregnant or misjudged gestational age. 48% had difficulty arranging for their abortion (particularly raising money), 33% were afraid to tell their parents or partner and 24% reported personal health problems, rape or incest.

Denmark is another country where abortion on demand is allowed. The first proper law on induced abortion came into force in Denmark in 1939 according to information from Danish Center for Demographic research (Knudsen and Wielandt 2000). In a review "Legally induced abortion – experiences from Denmark" the age specific rate of induced abortion is depicted in the table 2C below.

**Table 2C:** Age specific rate of induced abortion (per 1,000 women). Denmark, Selected years

		Age of woman at the time of interruption							
Year	15-19	20-24	25-29	30-34	35-39	40-44	45-49	15-49	
1974	20	28	29	29	23	11	1	21	
1975	25	32	32	31	24	12	1	24	
1980	22	29	25	22	18	9	1	19	
1985	16	29	22	17	13	7	1	16	
1990	17	30	25	18	12	5	1	16	
1995	15	23	21	19	13	5	1	14	
1996	16	24	22	19	13	5	1	14	

Source: Vital statistics, as presented in Knudsen & Wielandt (2000)

The late abortion scenario in Denmark shows that in 1996 a total of 562 of the 18,135 induced abortions were performed after the 12<sup>th</sup> gestational week, which corresponds to approximately 3.1 per cent. The primary reason for these late abortions were foetal anomalies found after prenatal diagnosis procedures completed in the 14<sup>th</sup>-16<sup>th</sup> gestational weeks.

The rate of late TOP in Denmark is about one third of the rate in USA. The reason for this cannot be easily ascertained. However in the analysis of abortion in both countries by Henry P. David et al. (1990), some reasons could be deduced. It is reported that in Denmark, contraceptive services are free and universally available, even to teenagers, resulting in a dramatic drop in teen abortion rates. And also that pregnancy rates among Danish teenagers are less than half those in the United States. It is likely that the same trend is occurring in other age groups and will correspondingly be reflected in the late term

abortion rates.

Another European country that has recorded low abortion rate is Sweden. The success in this regard is attributed to a high rate of contraceptive use and sex education in schools. According to International Planned Parenthood Federation, (CCT 1995) "Sex education has been a compulsory subject in schools in Sweden since 1956, and today Swedish adolescents who are sexually active have a high rate of contraceptive use and a low number of abortions." Sweden was the third European country authorized to use the "abortion pill", RU 486, and formally began using it in 1992 for pregnancies up to 9 weeks' duration.

This high level of sexual awareness and high rate of contraceptive use, in Denmark and Sweden, compared to the USA might have accounted for the wide difference in rates.

The situation in USA is not as straight forward as in Sweden or Denmark. In the USA there are some variations across the states. According to Mark H. Beers et al (2005), some USA states are passing laws requiring parental consent before teenage women under the age of 18 can have an abortion; this has resulted in a significant rise of late abortions among young women, causing greater risk of complications. Some teens, fearing their parents' reactions, have sought illegal abortions; and deaths occurred in some of these cases. Another important factor is the funding of the healthcare. In USA, a bill passed in 1978, limited Medicaid

funding for poor women's abortions to those performed in health-risk or life-threatening situations or in cases of incest. Sequel to this law, Medicaid-funded abortions dropped by 96% from 250,000 to 2,421 per year. The situation got worse in June of 1981 when the Congress eliminated rape and incest as grounds for obtaining federal funds for abortions. (CCT, 1995).

#### 2.5 Reasons for Late term Abortions.

Some of the reasons given by women for late TOP, in the earlier studies (Gans Epner et al., 1998), include lack of money, information and earlier indecision about TOP. Some blame failure of contraceptive or spouse.

Other common reasons why women delay in having abortions (Robinson B.A. 2004), include:

**Undetected pregnancy** - This is a situation where a woman failed to recognize that she is pregnant until the pregnancy is well advanced. This situation may occur in post menarche teenagers or early puberty as many Ladies at this age often have irregular menses and poor knowledge of signs and symptoms of pregnancy. They may regard missed menses as a normal pattern even though they had sexual intercourse prior to skipping their menses. Also some women have scanty vaginal bleeding (spotting) for few days each month despite pregnancy. This may be confused with normal menses and hence the individual may not seek assistance in time.

**Denial of pregnancy** – In certain instance some women failed to believe or decided to deny that they are pregnant despite signs and symptoms of pregnancy and confirmatory pregnancy tests. This may occur in women who are passing through depression or marital instability. It may also occur in women using family planning. They keep on hoping that their menses will return until advanced stages of pregnancy when pregnancy will be very obvious.

**No convenient clinic nearby** – Some women often complain that the primary healthcare clinics in their neighbourhood are not convenient. They claimed that one has to stand in long queques even if its just for pregnancy test. Specialised TOP clinics are not available in all towns and clients will have to arrange to travel to the TOP center.

**Lack of money** - Many women cited lack of money as the reason why they could not come for TOP early enough. They need money for transport to get to the TOP center. In some Countries, money may be need for pregnancy test or ultrasound.

#### **Delay in getting Parental or Court Consent** – in countries e.g.

USA,underage clients are supposed to obtain Parental or Court consent; such TOP clients may not be able to obtain consent for the procedure in time. The Parents may object to TOP or they may delay in giving consent. Court procedures for granting Court consent are also very bureaucratic and prolonged. By the time the client would obtain consent for TOP the pregnancy would have

reached advanced or late stage.

**Development of unexpected medical conditions** - Often women who do not think of undergoing TOP are forced by circumstances of newly diagnosed medical condition to do TOP on the advice of their medical doctor. The medical condition may necessitate TOP in order to save the life of the mother and this often occur at second or third trimester.

Realisation that earlier procedures e.g. X-Rays or medication might have accidentally damaged the foetus - In areas where test like

Amminocentesis can not be performed, TOP is advised if the doctor feels that the woman has been exposed to agents that might have deleterious effects on the foetus.

**Decision to abort due to malformed fetus, which was only detected after the 16**<sup>th</sup> **week by ammiocentesis (e.g Down's Syndrome)** – some congenital abnormalities or syndromes could only be detected at late stages of pregnancy. In some of these conditions TOP is prescribed by the doctor and as such add to the number of late term abortions (Robinson B.A. 2004).

#### 2.6 Medical Reasons for Late Term TOP.

Some second-trimester abortions result from medical conditions that threaten a woman's health or life. The condition may have existed prior to the pregnancy,

may have arisen during the pregnancy, or could have resulted from the pregnancy itself. Other second trimester abortions result from the detection of serious fetal abnormalities, many of which are not diagnosed until the second trimester. Amniocentesis is usually performed between the 14<sup>th</sup> and 18<sup>th</sup> weeks of pregnancy, and results usually are not available for another 2 to 3 weeks. Chorionic villus sampling (CVS) can be performed between the 10<sup>th</sup> and 12<sup>th</sup> weeks of pregnancy. Preliminary results of CVS are usually available within 48 hours and confirmatory final results typically take a maximum of 7 to 10 days. An induced abortion prompted by the discovery of fetal anomalies through CVS or amniocentesis is almost certain to occur after the first trimester.

(Gans Epner et al., 1998).



# 2.7 Abortion Related Morbidity & Mortality.

Abortion-related mortality refers to the death of the pregnant woman due to an abortion. Abortion mortality may result from a legal, illegal, or spontaneous abortion or an abortion of unknown circumstances. The risk of abortion-related mortality increases with gestational age. In 1991, the overall case-fatality rate associated with legal abortion was 0.8 per 100 000 abortions. The risk of mortality from induced abortions at 8 weeks' gestation or less was 0.2 per 100, 000 procedures and by 16 to 20 weeks increased to 5.9 per 100, 000 procedures. At 21 weeks or more, the mortality rate was 16.7 per 100, 000 procedures and exceeded the risk of maternal death from childbirth, which was

6.7 per 100, 000 deliveries, although the difference was not statistically significant. (Gans Epner, et al., 1998)

The risk of complications and complication rates from induced abortion are also related to gestational age. From 1975 to 1978, there were between 1 and 4 major complications per 1000 procedures performed through the 12<sup>th</sup> week of gestation, 6 major complications per 1000 procedures performed in weeks 13 to 14, 13 per 1 000 in weeks 15 to 16, and 19 per 1000 in weeks 17 to 20. (Gans Epner et al., 1998)

More recent international data also have shown that complication rates still increase with gestational age. Direct comparisons of abortion-related complication rates between countries must be made cautiously due to differences in the definition and measurement of complication. Data for 1988 for Denmark, Germany, and New York State and from 1987 for Canada, England, and Wales showed complication rates ranging from 0.4% to 3.4% for first trimester abortions and from 1.1% to 8.7% for second trimester abortions. (Gans Epner, et al, 1998)

#### 2.8 Access to TOP Service in South Africa.

There are at least two functioning TOP centers per province and in addition some private sector facilities are accredited to establish TOP centers, e.g Marie Stopes clinics in major towns. Some private medical practitioners are also given

accreditation to perform the service in their medical practice rooms (RRA 1998). The National statistics indicate that TOP continues to be a necessity. However, it has been noted that not all the designated facilities perform and deliver the service (Table 2D).

**Table 2D:** Status Of Functioning Top Services In South Africa

Province	No. of designated facilities	No. of functioning facilities (% of designated)	No. of functioning public facilities (% of total functioning)	No. of functioning private facilities (% of total functioning)
Eastern Cape	11	10 (91)	9 (90)	1 (10)
Free State	9	5 (56)	4 (80)	1 (20)
Kwazulu Natal	66	8 (12)	6 (75)	2 (25)
Gauteng	75	33 (44)	18 (55)	15 (41)
Mpumalanga	22	6 (27)	6 (100)	0 (0)
Northern Cape	2	2 (100)	2 (100)	0 (0)
Limpopo	36	5 (14)	5 (100)	0 (0)
North West	12	9 (75)	7 (78)	2 (22)
Western Cape	59	14 (24)	10 (71)	4 (29)
Total	292	92 (32)	67 (73)	25 (27)

Source: NDOH 2000.

Table 2D illustrates the status of TOP in the country. In total there were 292 designated TOP services throughout the country. Only about a third (32%) of these was providing TOP services. The greatest number of facilities for TOP lay in the public sector (73%) while the private sector contributed just over quarter (27%) of TOP provision. Gauteng had the most designated facilities and the largest number of functioning TOP services. (NDOH 2002).

The TOP figures reported are likely to be an underestimation of the actual situation, since lack of access is presumed to encourage illegal or "backstreet" abortion which the choice on termination of pregnancy Act has been trying to discourage.

A further indicator of access to TOP services is the number of women in a reproductive age group living near a TOP service facility. This is based on the assumption that if you live near to a health facility you have access to the services offered. There is no convention for the maximum distance from a TOP service that is necessary to ensure access, so the proportion of the population living within 50km and 100km was considered (NDOH 2000)

Tables 2E and 2F show, by province, the number of women of reproductive age who lived within 0-50km and 50-100km of TOP services providing first and second trimester TOPs. The tables also show the percentages of women of reproductive age who did not live within at least 50km and 100 km of a TOP service.

**Table 2E:** Access to facilities for the first trimester TOPs (number of women living in each province within 0-50km and 50-100km of a facility providing first trimester TOPs and proportion who do not).

Province	Total 16- 50 yrs old female	%Within 0-50km	% Not within 0-50km	%Within 50-100km	% Not within 0-100km
Eastern	1541 476	58.9	41.1	33.5	7.6
Cape Free State	702 486	71.5	28.5	23.9	4.6
Kwazulu Natal	2 237 265	59.4	40.6	24.6	16.0
Gauteng	2 097 147	97.7	0.3	0.3	0
Mpumalanga	718 689	71.6	28.4	28.3	0.1
Northern Cape	215 261	43.2	56.8	18.3	38.5
Northern Province	1 182 998	37.2	62.8	45.0	17.8
North west	866 619	72.8	27.2	24.0	3.2
Western Cape	1 102618	83.2	16.8	8.3	8.5

Source: NDOH 2000

**Table 2F**: Access to facilities for the second trimester TOPs (number of women living in each province within 0-50km and 50-100km of a facility providing second trimester TOPs and proportion who do not)

Province	Total 16- 50 yr old females	%Within 0-50km	% Not within 0- 50km	%Within 50- 100km	% Not within 0-
Eastern	1 541 476	51.9	48.1	32.4	16.5
Cape					
Free State	702 486	69.6	30.4	25.5	4.9
Kwazulu	2 237 265	56	44.0	24.4	19.6
Natal					
Gauteng	2 097 147	98.4	1.6	1.6	0
Mpumalanga	718 689	70.8	29.2	28.1	1.1
Northern	215 261	28.9	71.1	8.0	63.1
Cape					
Northern	1 182 998	56.8	43.2	24.5	18.7
Province		0.0			
North west	866 619	38.1	61.9	28.7	33.2
Western Cape	1 102 618	82.7	17.3	8.7	8.6

Source: NDOH 2000

In the same report, community based factors, affecting women's access to TOP, were identified as follows:

- There seems to be a general lack of knowledge about the conception period and TOP services in the general public. Since the passing of the Act there has been an increase in the number of people who are aware of when an abortion can be done.
- > Radio is still the main source of information regarding TOP especially in rural areas.
- > The difficulty for women in negotiating safe sex with male partners is a major

cause of unplanned pregnancy

Religion and religious beliefs have a strong influence on attitude to abortion.

### 2.9 Barriers to Implementing South Africa's Top Act.

There are many reasons for continued barriers to TOP in South Africa, including underlying resistance of part of the population, as well as the non-functioning of designated facilities viz:

- 1. Some doctors are morally not prepared to provide the service irrespective of the legislation.
- 2. Media reports revealed that there is still a stigma attached to the service.
- 3. Midwives who perform TOP are working under stressful conditions due to the communities' attitudes especially in rural areas.

These barriers to access not only deter the health workers duties but make it hard for those in need of service to come forward. An unwanted pregnancy would then most probably be terminated illegally (NDOH 2002).

In a study, carried out by Harrison Abigail et al in rural Kwazulu Natal province of South Africa, some insight was reflected on the reception of TOP Act by primary health care nurses and community members (Harrison A, et al., 2000). The study found out that opposition to the TOP Act was very strong and that few respondents supported abortion upon request. However an interesting hierarchy of support exists: There is significantly greater support for abortion in specific

circumstances particularly rape or incest or saving mother's life.

According to Harrison et al (2000), the TOP Act faces significant opposition in some areas, and as a result has been difficult to implement outside major urban centers. The study found that in traditionally conservative areas like rural Kwazulu-Natal, strong opposition has greeted the passage of the TOP Act. Many oppose the Act for a combination of complicated reasons. Abortion runs counter to accepted community and societal norms, and many disagreed with the idea of abortion on request even while expressing support for some specific provisions of the TOP Act. However careful distinctions are made about certain circumstances where abortion is acceptable, such as rape and incest or incomplete abortion. For example many health workers in the study had no problem assisting with the care of women with incomplete abortions, or even in finishing those abortions because they felt that the stigma associated with the abortion would be placed on the women receiving care, who had started the abortion, rather than on the nurse who was simply fulfilling professional duty in saving a life.

Rape and incest are considered tragedies beyond the control of women seeking the termination of pregnancy, thus entitling them to do anything to alleviate the situation. In contrast, socio-economic hardship is not viewed in this light.

Furthermore, a child conceived through rape or incest appears to be viewed as an unwanted child, while there seems to be no socially acceptable reason for not wanting a child simply because of the mother's socioeconomic status. At the

same time, many of the nurses in this study were extremely harsh in their views towards rape victims seeming to claim that young women would say they had been raped in order to gain access to abortion. Opposition to abortion in this study thus stemmed from both personal and societal beliefs.

(Harrison A, et al 2000).

These reviews did not analyse the 2<sup>nd</sup> trimester or late termination of pregnancy but gave an insight into the size of the problem of TOPs (abortion) per province in South Africa.



# **CHAPTER 3**

### RESEARCH DESIGN AND METHODOLOGY

## 3.1 Study Design.

This is a quantitative cross sectional analytical study. The epistemology is positivist approach and methodology is quantitative. A cross sectional analytic study is used as we are only interested in collecting information from a sample of TOP clients at a point in time. The cross sectional analytic study is appropriate because it has a descriptive component, which enables us to calculate risk factors as well as prevalence of late TOPs. Cross sectional analytic study is very useful in doing comparison between early and late TOP in this study.

### 3.2 Study Population.

All women seeking TOP at the Kopano TOP center in Welkom, Lejweleputswa district during February 2004 through May 2004 were eligible to be included in the study. Women who refused to give consent for the study were excluded. This population includes women from Lejweleputswa district (DC18) and women from Northern Free State district (DC20). Kopano TOP center served both districts during the period of study.

## 3.3 Sample Size.

150 women were studied among the early presenters (less than 12 weeks of pregnancy) and also 150 women were studied among the late presenters (more than 12 weeks of pregnancy). This sample size, at 95% confidence interval, is expected to have 80% power of finding differences of approximately 15% between the groups as statistically significant (CDC EPI INFO 2000).

# 3.4 Sampling Procedure.

All women, seeking TOP at the Kopano TOP center, between February 2004 and May 2004 were approached for inclusion into the study. The nursing sisters explained the purpose of the study to the clients in their native language. Those clients that agreed to participate in the study were given written consent form (appendix) to sign. The consent form was duly explained to the clients in their native language. Provisions were made for thumb printing for clients that were unable to sign. Care was taken not to disrupt the routine of the clinic.

Written consent and questionnaires were administered confidentially in private examination rooms, one client at a time. The nursing sisters in the TOP center examined all consenting clients and determine their gestation age. The clients are then interviewed privately in their preferred language but their responses were entered into the questionnaires in English language.

The first 150 consenting clients in each group (early and late presenters) were included in the study. Questionnaires were administered before pre-counselling is done for TOP procedure. A consenting patient may change her mind as regards TOP after pre-counseling and decide to keep the baby. Such a client was still included in the study because she actually seeks out the service in the first place.

### 3.5 Questionnaire development.

I developed the questionnaire (Appendix A) used with support from my supervisor. Literature search for research questionnaires on this subject could not yield a suitable questionnaire for this study.

The questionnaire was designed to capture information about the profile of respondents as regards demography, personal details (excluding names), social habits and sexual profile. Information about patients experience with contraceptives and TOP service were also captured. Provision was made for respondent's comments. The questionnaire covered the objectives of the study and was designed to take about 10minutes to complete.

The questionnaire was piloted in Kopano TOP center before the commencement of the data collection. Changes, reframing and addition of questions on the questionnaire were done during and after the piloting.

#### 3.6 Data Collection.

The 2 professional sisters were trained on the questionnaire and were involved in the piloting of the questionnaire. The nursing sisters, in separate consulting rooms, interviewed all consenting participants individually. As the questionnaires were designed in English language, the sisters in the native language of the clients did interpretations. Responses were recorded in the questionnaires in English language. The nursing sisters were trained and assessed in this aspect by the investigator

Questionnaires were administered to the patient in a relaxed atmosphere before pre-counselling or procedure was done so that the client is not in any pain from TOP procedure as at the time of completing the questionnaire.

The completed questionnaires were collected on the same day and analysed by the researcher (myself) on the same day or next day if collected late in the day. They were first checked for completeness and data quality before analysis.

## 3.7 Pilot study.

A pilot study was conducted after training the nursing sisters on the questionnaires and objectives of the study. 15 clients per nursing sister were used for the pilot study. At the end of the pilot study corrections and amendments were made to the questionnaires. The sisters also had opportunity to further understand the project.

### 3.8 Validity.

Internal validity of classification, between early and late TOP-presenters, was ensured by allowing the same clinic sisters to determine gestation ages, for both routine TOP care and study classifications. Testing the questionnaire at the pilot study also helped to validate the designed questionnaire. Seasonal variation does not appear to affect demand for TOP services.

## 3.9 Generalisability.

The study focused on the TOP presentation at The Kopano TOP center that serves District 17 and DC18 in Free State. The study outcome may also be applicable to other districts or provinces in the country with similar socioeconomic circumstances as women in these districts.

#### 3.10 Limitations.

Kopano TOP center is a free public facility and as such many well-to-do clients may opt for TOP at private facilities for more confidentiality or privacy. The clients at Kopano TOP center may be drawn from low socioeconomic group and students. This may affect the conclusion of the study as the study may reflect the patterns only in the less endowed segments of the population. Also as TOP is a sensitive matter, many women may not readily volunteer the exact reason(s) for seeking TOP or may be reluctant to participate in the study. However, none

of the clients approached for this study refused. There is also possible misclassification of the two study groups (early and late presentation for TOP) due to misclassification of gestational age. The classification of women as early or late TOP was done by the practicing midwife based on her clinical assessment of gestational age (using last menstrual period, medical examination and ultrasound as indicated). This estimate generally represents the most accurate available and also reflects the expected care the woman would be receiving (TOP in Kopano TOP Centre versus referral to Secondary Hospital for TOP) and is therefore the most relevant based on a health systems point of view.

### 3.11 Data management and data analysis.

All questionnaires were checked and completed in the TOP center by interviewers before each client departed. Every questionnaire was analysed by the researcher (Myself) on the same day. This allows me to check and correct all entries on the questionnaires with the nurses that filled them in.

Data were hand tabulated and Stat Calc (Epi Info 2002) was used to obtain odd ratios (OR), risk difference (RD), P-values and confidence intervals. All statistics were done from Epi

Info 2002. Early and late TOP cases were analysed separately and then compared via cross tabulation. Differences were assessed using chi-square and P-values.

# 3.12 Ethics, Confidentiality and Privacy protection.

The study received ethical approval by the Higher Degree Committee of the University of Western Cape. The value and purpose of this study were thoroughly explained to the participants. Informed consent was obtained from each participants and each signed a consent form (Appendix B). No participant experienced any harm, physical or emotional.

There is no name, identity number or other identifying information on the questionnaires and data collection forms. Female nurses completed questionnaires, while the women were still on the premises of the TOP center so that the group is homogenous and nobody who has not come for TOP knows of the questionnaires. Participants were told of their right to withdraw at any stage of the study.

# **CHAPTER 4**

### **RESULTS**

#### 4.1 Data Record of TOP.

During the period of study (February 2004 – May 2004) 945 clients requested TOP at Kopano TOP center. 344 (36.4%) were early presenters (less than 12 weeks) 514 (54.4%) presented after 12 weeks but not more than 20 weeks of gestation, 87 (9.2%) presented for TOP after 20 weeks of gestation. The latter groups (more than 20 weeks) was not assisted with TOP as their gestational ages were out of the scope of the TOP Act. This data is depicted in the tables below (Tables 4.1A and 4.1B).

Table 4.1A TOP Procedure records for February–May 2004 (Kopano TOP Center)

	Febr	uary	Marc	h	Ap	ril	N	1ay
Gestational	No	%	No	%	No	%	No	%
Age								
<12 weeks	79	35.7	105	41.0	63	33	97	51
> 12 weeks	142	64.3	151	59.0	128	67	93	49
Total	221		256		191		190	

Source: Kopano TOP Center Records

Table 4.1B Maternal Ages at Presentation for February–May 2004 (Kopano TOP Center)

	Febru	uary	Mar	ch	Apr	il	May	
Maternal Age	No	%	No	%	No	%	No	%
<18yrs	29	12	25	8.7	43	19.6	29	14.1
18-19	42	17.2	24	8.4	23	10.5	7	3.4
20-34	147	60.5	196	68.3	137	62.6	151	73.3
35yrs and older	25	10.3	42	14.6	16	7.3	19	9.2
Total	243		287		219		206	

Source: Kopano TOP Center Records

### 4.2 Demographic Data.

150 early TOP presenters and 150 late TOP presenters were studied, of the 150 early TOP, 142 (94.6%) were black, 7 were whites (4.7%) and one was a coloured (0.7%). Among the 150 late presenters, 148 were black (98.6%), one white (0.7%) and one coloured (0.7%)

The marital status among the early presenters shows that 117(78%) were single while in the late presenters 126 (84%) were single (Table 4A). There were 55 (36.7%) students among the late presenters compared to 39 (26%) in the early presenters' group. Similarly there were more teenagers (age less than 20 yrs) in the late presenters (37 or 24.7%) than in the early presenters (24 or 16%)

Analysis of the family annual income shows that there were 107 (71.3%) of the late presenters in the lower economic status (less than R10.000 per annum) compared to 78 (52%) of the early presenters. More clients in the late

presenters group 55 (36.7%) traveled more than 50 km to TOP center compared to 35 (23.3%) of the early presenters. Similarly 145 (96.7%) of the late presenters made use of public transport compared to 134(89.3) in the early presenters. There is similarity in the social habits, parity employment status and level of education when the two groups are compared.

Of the demographic factors, four showed statistically significant differences: being a student, distance to services, mode of transport and income (Table 4A).



**Table 4A:** Socio – Demographic Profile

		Late	ТОР	Early	, ТОР	_	arison of Late	ТОР
Criteria		#	%	#	%	P. Value	95% Conf. Intv.	RD
Parity	Nulliporous	57	38.0	56	56.0	0.005	0.62 1.60	0.00
	Parous	93	62.0	94	62.7	0.905	0.63 - 1.69	0.00
Age	<20	37	24.7	24	16.0	0.003	0.02 2.17	0.14
	>20	113	75.3	126	84.0	0.062	0.93 - 3.17	0.14
Marital	Single	126	84.0	117	78.0	0.105	0.80 - 2.76	0.10
Status	Married	24	16.0	33	22.0	0.185		0.10
Race	Black	148	98.6	142	94.6	0.054	0.80 -	0.21
	Others	2	1.4	8	5.4	0.054	28.93	0.31
Employment	Unemployed	76	50.7	81	54.0	0.563	0.54 4.44	0.03
	Employed	74	49.3	69	96.0	0.563	0.54 - 1.41	-0.03
Level Of Education	Primary or Less	14	9.3	10	6.7			
	High School and Higher	136	90.7	140	93.3	0.395	0.58 - 3.63	0.09
Student	Students	55	36.7	39	26.0	0.046	0.00 2.70	0.13
Status	Others	95	63.3	111	74.0	0.046	0.98 - 2.78	0.13
Family	< R10.000	107	71.3	78	52.0			
Income (per annum)	> R10.000	43	28.7	72	48.0	0.001	1.39 - 3.81	0.21
Distance To	> 50 Km	55	36.7	35	23.3	0.012	1.12 - 3.25	0.16
Top Center	< 50 Km	95	63.3	115	76.7	0.012	1.12 - 3.23	0.10
Mode Of	Public	145	96.7	134	89.3			
Transport	Private	5	3.3	16	10.7	0.013	1.15 -11.14	0.28
Smoking	Smoking currently	4	2.7	6	4.0	0.520	0.15 - 2.70	-0.10
	Not smoking currently	146	97.3	144	96.0	0.320	0.15 - 2.70	-0.10
Alcohol	Drinking currently	9	6.0	15	10.0	0.202	0.22-1.45	-0.13
	Not drinking currently	141	94.0	135	90.0	0.202	0.22-1.73	0.13

## 4.3 Knowledge of Family Planning.

Almost all the clients in both groups (early and late presenters) know where to get contraceptives, 148 (98.7%) of early presenters and 149(99.3%) of late presenters (95% CI= 0.01-9.66, RD=0.17,p.value =1.0).

Among the early presenters 17 (11.3%) said they never used contraceptive while 28 (18.7%) of the late presenters gave the same response. The difference is however not statistically significant.

(p-value= 0.075, 95% CI = 0.90-3.62, RD=0.17).

The most popular contraceptive among the clients who use contraceptives in both groups is depot injections, i.e. Depo-provera and Nur-Isterat, (50.4% in early presenters and 51.9% in late presenters). The least used contraceptives among each group in intra uterine contraceptives device (IUCD), (1% in early presenters and 1.5% in late presenters).

Analysis of the response of the clients that were not using contraceptives or using them irregularly is depicted in Table 4B.

**Table 4B:** Reasons for not using Contraceptive or using it irregularly.

	VARIABLE	EARLY TOP	%	LATE TOP	%
	My husband/boyfriend refused	28	19.6	35	23.7
	My parents/guardian refused	2	1.4	2	1.4
Contraceptive - (why	My church/religion forbids	1	0.7		0
not using or use	I do not like them	41	28.7	47	32
irregularly)	I react to them	58	40.5	50	34
	I do not like their side effects	2	1.4	1	0.7
	Other – forgets them, don't know contraceptive, etc.	11	7.7	12	8.2

As shown in table 4B above majority of the clients did not use contraceptive or use them irregularly because they feel they react to them [58 (40.5%) of early presenters and 50 (34%) of late presenters]. The influence of husband or partners was cited in 28 (19.6%) early presenters and 35 (23.7%) late presenters.

Age at first intercourse does not appear to have influence on the use of contraceptive or time of presenting for TOP. The analysis of the age at first intercourse shows that 34 (22.7%) among the early presenters had first intercourse at less than 16 years of age while 46 (30.7%) had the same experience among the late presenters.

(95% CI=0.87-2.61, p-value=0.117, RD=0.07).

### 4.4 Awareness of Termination of Pregnancy Service.

Almost all the clients in both groups were aware of TOP service before this pregnancy, in which they presented for TOP. 147 (98%) of the early presenters and 141 (94%) of the late presenters actually knew of the existence of choice of termination of pregnancy and TOP service before they were pregnant (p-value= 0.05). This factor, therefore, did not appear to have influence on the time of presentation for TOP (Table 4C.)

**Table 4C:** Awareness and knowledge of TOP service

CRITERIA	VARIABLES	EARLY TOP	%	LATE TOP	%
TOP service	Aware of service before present pregnancy	147	98	141	94
TOT SERVICE	Not aware of service until pregnant now	3	2	9	6
	Before 12 weeks of pregnancy	108	72	5	3.3
Cofeet Core for TOP	Between 12-20 weeks	28	18.7	91	60.7
Safest time for TOP in your opinion	After 20 weeks		0	2	1.3
in your opinion	Anytime	9	6	8	5.3
	Do not know	5	3.3	44	29.3

However when asked "what is the safest time to perform TOP in your opinion?" The responses show significant differences between the two groups. 108 (72%) of the early presenters said it is safer to come before 12 weeks of pregnancy while only 5 (3.3%) of the late presenters gave the same response (p-value 0.00, 95% CI=0.00-0.04, RD= -0.74).

Undergoing TOP previously did not influence the time of presentation for TOP as shown by the responses in both groups. Only 4 (2.7%) of the early presenters

and 6 (4%) of the late presenters said they have had previous TOP. (p-value 0,52, 95%CI=0.35 to 7.47,RD=0.10).

The time interval between discovering that they are pregnant and presenting for TOP appears to show significant differences in response between the two groups. 121 (80.7%) of the early presenters came for TOP within 4 weeks of discovering that they are pregnant, while 101 (67.4%) of the late presenters came for TOP within 4 weeks of discovering that they are pregnant (p-value = 0.008, 95% CI = 0.28-0.87, RD=0.18).

### 4.5 Influence of Spouse or Partner On Time Of Presentation.

Analysis of the response to the choice of time to come for TOP (Table 4D) shows that the husband or partner does not influence the time of presentation. The majority of the early presenters 109 (72.7%) said they came because they have just found out that they are pregnant and none said they think they can come anytime. 74 (49.3%) of the late presenters said they came at the time they presented for TOP because they have just found out that they are pregnant (late detection of pregnancy) while 28 (18. 6%) said they think they can come at any time (p-value =0.00).

**Table 4D:** Reasons for choice of time to come for TOP.

CRITERIA	VARIABLES	EARLY TOP	%	LATE TOP	%
	I think I can come anytime	_	0	28	18.6
	I have just discovered I'm pregnant	109	72.7	74	49.3
	I did not have time to come earlier	26	17.3	23	15.8
Choice of time to come for TOP	I did not make up my mind earlier	15	10.0	20	13.3
to come for TOT	My husband/boyfriend did not agree in time	_	0	2	1.3
	I did not have money to come earlier		0	2	1.3
	Other reasons e.g. I was afraid		0	1	0.6

# **4.6 Reasons for Seeking Top Service.**

An open - ended question was asked in the questionnaire to find out why the clients in both groups request TOP service instead of keeping the pregnancy.

Various answers were given and some clients gave more than one reason. The responses are coded, in conjunction with my supervisor, in tables E and F below:

The clients and, possibly the interviewers, may not have understood the initial question of why come late for TOP, as most of them answered why sought TOP instead of why come late for TOP. Only a few answered the latter as tallied below.

**Table 4E:** Reasons Topics/Themes - summary

(all themes/reasons mentioned) and count (total over 100%, even in theme categories, as many of the women had more than one topic/reason)

	LATE TOP	EARLY TOP
<u>Financial Reasons</u>		
Woman not working	49	61
Lack of Money/Can't afford	21	37
Dependent on Pensioner	18	25
Too many children	13	9
Dependent on another family me	mber 7	6
FOB can't provide financial suppo	ort (a.g.a.)	
(not working or earns very little)	11111	10
Because of Job	2	11
Age/School		
School	45	41
Too Young	26	21
Lack of Support (non-financial)		
Father of baby (FOB) Left.	22	21
Only one parent	16	13
Afraid of parents Reaction	11	5
No Parents	9	9

Problems with husband/F0	DB 7	10
FOB Died	4	4
Single	2	1
FOB refused child	0	2
<u>Other</u>		
Rape	2	3
Nyatsi (Adultery)	6	5
Health Reasons	4	3
	(2HIV, 1HBP, 1 Arthritis)	(2 HIV, 1 non - specified)
Family Pressure to TOP	3	1
Prior child still too young	1171	8
Baby a problem	2	0
Not Ready/Doesn't want b	aby 1	2
Other	3	2

**Table 4F:** Specific reasons for delaying TOP mentioned during open discussion of reasons for and timing of TOP

Reasons	<u>Number</u>
Lack of Money	4
Came after FOB left	2
Recently learned of clinic	1
Couldn't agree with FOB	1
Ambivalence	1
Only just arrived from Lesotho	1

Analysis of the responses shows that about 1/3 of the clients in both group came for abortion because the pregnancy will interfere with their school or job, while 1/3 cited lack of support and at least 75% gave financial constraints as an additional reason for requesting TOP.

# **CHAPTER 5**

# DISCUSSION, CONCLUSION AND RECOMMENDATION

### **5.1 Demographics.**

The maternal age of women at the time TOP was performed has predominantly been over the age of 18 years in South Africa (NDOH 2002). The maternal age pattern in the study also falls in the same trend as what obtains in other parts of South Africa. According to statistics from the national department of health South Africa (Addendum A, Table 1), a total of 23 148 (88.7%) women over age 18 years and 2952(11.3%) aged less than 18 years, underwent TOP from February 1997 to November 2001 in South Africa. In this study it is found that 79.7% of the studied women were 20 years and over while 20.3% were younger than 20 years. The same picture is found in the United States of America (USA), where abortion is found to be highest in the age group 20-24 yrs (35 abortions per 1000 women) (CDC 2002)

Majority of the clients in both groups studied are unmarried (78% of early presenters and 84% of late presenters). This is similar to the pattern in United States of America where 78% of women seeking TOP were found to be unmarried (CDC 2002).

Literature review shows that first trimester TOP (less than 12 weeks) constituted

at least 75% of the termination of pregnancies done in most provinces of South Africa. The main exceptions were the Northern Province (48.1%) and the Northern Cape (50%). In Free State 69% of TOPs were done in the first trimester (NDOH 2000). Findings in the USA show that approximately 88% of all abortions were obtained during the first 12 weeks of gestation (CDC 2002).

The study shows that students were more likely to delay in presenting for TOP than other groups. The difference in the pattern of students presenting early or late for TOP was found to be statistically significant (p-value=0.046). This is similar to the situation in USA, where teenagers were found to be more likely than older women to have an abortion at 16weeks of gestation and over (Gans Epner, 1998). Most of the students are teenagers or young adults and irregular menstruation is common in this age group. They often misinterpret missed menses in pregnancy for normal pattern of irregular menses until late in pregnancy when signs of pregnancy are very obvious. Students in this setting are also more likely to have little knowledge of signs and symptoms of pregnancy since they were never pregnant before and no structured sex education. Another reason may be that those who know they were pregnant are too afraid to inform their parents or teachers.

In Sweden, there is low rate of abortion among students and this is attributable to compulsory sex education in schools and high contraceptive use (CCT1995).

Analysis of the family total annual income shows significant difference between

the 2 groups. There are more clients among the late presenters who have total annual family income of less than R10 000 (71.3%) compared with the early presenters group (52%) (p-value=0.0006) This shows that financial constraint could be a factor affecting the client's decision on time to present for TOP.

In a related review of late TOP in USA, about 48% said money was responsible for their delay (Gans Epner 1998). The two districts served by Kopano TOP center has high unemployment rate and poverty (Lejweleputswa IDP report2004) so it is possible that many indigent clients may not be able to raise transport fare in time to come to the TOP center.

#### **5.2 Access to TOP center.**



The study shows significant difference (p-value 0.012) when the 2 groups are compared in terms of distance to TOP center. There are more clients in the late presenters group living at places more than 50 km from TOP center compared to the early presenters group. This shows that the distance to TOP center could be a factor on why some clients delay in coming forward in time for TOP.

According to a survey by the National Department of Health (NDOH 2000), access to first trimester TOP services was generally much better than access to second trimester TOP services. More women in all provinces lived within, at least, 50 and 100km of a facility offering first trimester TOP services, than those

offering second trimester TOP services.

Gauteng province clearly offered the best access to first trimester TOP services, with only 0.3% of women not living with 50 km distance of a first trimester facility. The Western Cape also offered reasonably good access with only 16.8% of women not living within 50km of a first trimester TOP service. In some provinces over a quarter of the women of the reproductive age group did not live within 50km of a TOP service, North West (27.2%), Mpumalanga (28.4%), and the Free State (28.5%). In KwaZulu-Natal and the Eastern Cape, over 40% of women did not live within 50km of a service (40.6% and 41.1% respectively). More than half of the women of reproductive age in the Northern Cape and Northern Province did not live within 50km of a TOP service (56.8% and 62.8% respectively) (NDOH 2000). These are also the two provinces with the highest proportion of women presenting late for TOP.

Most women in all the provinces lived within at least 100km of a facility offering first trimester TOP services. All women in Gauteng province lived within, at least, 100 km of a first trimester of TOP service. In the other provinces, except NorthernCape (38.5%), Northern Province (17.8%), and Kwa Zulu-Natal (16.0%), less than 10% of women lived further than 100km from a first trimester TOP service.

Access to second trimester TOP services was more limited than access to first

trimester services. Gauteng province again offered the best access to services with only 1.6% of women not living within 50km of a second trimester TOP service. In the Western Cape 17.3% of women did not live within 50km of a second trimester service.

In the other provinces between 29.2% and 71.1% of women in their reproductive years did not live within 50km of a second trimester service. In

Provinces such as the North West (61.9%) and the Northern Cape (71.1%) two

thirds of women lived more than 50km from a second trimester TOP service.

Even though more women in all the provinces lived within 100km of a facility offering second trimester TOP services, access was still very restricted. Four Provinces had a high proportion of their population living within 100km of a functioning second trimester TOP service. These were Gauteng (all women), Mpumalanga (98.9%), Free State (95.1%), and Western Cape (91.4%). In the other provinces, between 16.5 and 63.1% did not live within 100km of a second trimester TOP service. (NDOH 2000).

Another factor that was found to be significant is the mode of transportation. More clients in the late presenters group made use of public transport compared to clients in the early presenters group. Also more clients in the early presenters group came to the TOP center in private transport compared with the late presenters (p-value=0.013). A look at the distance to TOP center shows that

36.7% of late TOP clients live in places farther than 50km from Kopano TOP center compared with 23.3% of early presenters. This could indicate that clients in the late TOP group have less access to the TOP center as they have to travel from far. Also there are more late TOP clients in the low income stratum, and as such less likely to have access to private vehicle, so many of them would have to save money for a while before they could afford transport fare, hence late presentation.

# 5.3 Knowledge of pregnancy.

There is statistical significant difference between the 2 groups in terms of the time they were aware that they are pregnant and the time they present for TOP. In the early presenters group 80.7% were aware within four weeks of pregnancy that they are pregnant, while in the late presenters group 67.4% became aware that they are pregnant at about 4 weeks after 1<sup>st</sup> trimester i.e. after 16 weeks. (p-values = 0.008). This shows that many women present late for TOP because they are unable to detect their pregnancy earlier or they do not know the symptoms and signs of pregnancy. Failure to detect pregnancy in time is one of the main reasons why women present late for TOP even in Europe (Gans Epner 1998, Zimmermann 1997). Many clients especially teenagers and students do not know the signs and symptoms of early pregnancy. In the USA review, 71% of late TOP clients reported that they did not recognize that they were pregnant of misiudged gestational age (Gans Epner 1998).

#### 5.4 Perceived safest time to come for TOP.

The majority of the clients in the early presenters group indicated that the safest time to come for TOP is before 12 weeks while only very few of the late presenters gave the same response (p-value=0.00) This shows a significant difference in the knowledge of pregnancy and TOP service in the 2 groups. It could be inferred that the early presenters are aware of risks involved in late TOP while the late presenters lack such knowledge.

The reason for many of the respondents in this study failing to know the safest time to come for TOP may be education, especially health awareness education. The literacy level of the Free State (Statistic South Africa Persons and Services 2004) is about 60%, and culturally parents do not discuss sex and its implications at home with their children.

The implication for women of wrong perception of safest time to seek TOP is that they will delay in coming forward for TOP when they have unwanted pregnancy. They might be under an erroneous impression that TOP could be done at any stage of pregnancy. Many of the late presenters are even unaware of the complications or risks involved in late TOP. This is an indication that the government health education message is either not comprehensive enough or that the messages do not reach the population that they were designed for. The majority of the respondents in this study (49.3% in both groups) said they learn

about TOP from friends while less than 1% got such information from the media in their local area. This shows that the government must reappraise the strategies currently being used to disseminate health education with a view to finding the best approach, especially on issues relating to sex education.

# **5.5 Knowledge of family planning.**

The study shows that majority of the clients in both groups have adequate knowledge of family planning and know where to obtain it. However a large number of the clients in the 2 groups 143 (95%) early presenters and 147 (98%) late presenters were not using contraceptives or use them irregularly.

Although there is no significant difference between the 2 groups as regards knowledge of family planning, there is a concern about the high proportion of women not using contraceptives regularly of having unprotected sexual intercourse.

In a study conducted on TOP in Free state (Ngwena C. et al, unpub), it was found that only half of the teenage mothers were using contraceptive and that by far the most commonly used method was the injection. The same picture was found in my study.

According to a related study carried out in South Africa (Mqhayi M.M., et al 2004)
Respondents (women aged 15 – 24 years) were asked about their knowledge of

contraceptive methods and use, and specifically about emergency contraceptive utilisation. More sexually active young urban women (76%) were currently using a method of contraception, compared to the young rural women (53%). Only 17% had ever heard of emergency contraception, although significantly more in the urban area (p = 0.005) had heard of it. Only one woman from each site had ever used emergency contraception, although 39% had had unprotected intercourse in the previous year when they did not wish to conceive. The study recommended that young South African women should be the focus of interventions aimed at improving awareness of the availability of Contraception, especially emergency contraception, and knowledge about its correct utilisation.

In an article written by David H.P. (Abortion in Europe, 1920 – 1991: a public health perspective), he contends that no matter how effective family planning services and practices become, there will always be a need for access to safe abortion services. He stated that "During the reproductive years in developed countries, a woman is trying to become or actually is pregnant 10% of the time, and 90% of the time she is avoiding more births or trying to postpone births. Abortion rates show a decline in the countries where legal abortion is part of a comprehensive family planning program". (David H.P.1992)

#### 5.6 Awareness of TOP service.

There is no significant difference between the 2 groups in terms of the knowledge of TOP service. Majority of the clients in both groups were aware of

TOP service before they got pregnant.

According to a study on TOP in the Free State (Ngwena C. et al, unpub), just more than a quarter of the teenagers studied knew someone who had previously terminated a pregnancy. They also found that knowledge of the location of abortion services was lacking, as 75% of their studied population did not know where to find an abortion service. Even those who indicated knowing the location of abortion services, were often wrong in naming facilities providing this service. Only about 25% were found to have any knowledge of the TOP Act or what requirements need to be met to for a TOP to be performed.

However, the National Department of Health (NDOH 2000) contends that a measure of service activity is the number of terminations (TOP) per month per 100 000 women in their reproductive years. In a survey conducted by the National department of health South Africa between September and December 1999, it was found that the average number of terminations of pregnancy per month for the three-month study period nationwide was calculated to be 3 997; the majority (77.8%) were early terminations (NDOH 2000).

The results show that Gauteng was performing the majority (48.5%) of terminations in the country. Gauteng province performed an average of 1 939 terminations per month. Northern Cape province performed the least number of terminations, contributing only 1.2% of the number of monthly terminations.

Northern Cape province only performed an average of 48 terminations per month. The number of terminations of pregnancy performed on average in a month per 100 000 women aged 16 – 50 years in each province was also reviewed. When compared to population, activity in Gauteng is seen to be well above average (92.5 per 100 000 women) and that in the Northern Province to be by a long way the lowest (6.6 per 100 000 women). The other provinces cluster in two groups of very similar activity level, Mpumalanga (39.5 per 100000 women), Western Cape (36.5 per 100 000 women) and the Free State (36.3 per 100 000 women) performing relatively better and KwaZulu-Natal (23.8 per 100 000 women), the Northern Cape (22.3 per 100 000 women), North West (19.1 per 100 000 women) and the Eastern Cape (18.7 per 100 000 women) performing much less well (NDOH 2000).

The data stated in this report show variation across the provinces. This may be due to TOP awareness or state of the provincial health structures. Gauteng province probably have more urban, employed, enlightened or vocationally engaged women who would rather abort a pregnancy than have a baby which can interfere with their preoccupation. Also other provinces like Eastern cape may be doing little terminations because their healthcare infrastructures are not well organised. Most parts of the Eastern cape and the other provinces that are reporting little terminations are rural; and with poor infrastructures in addition to shortage of staff.

# 5.7 Factors influencing Late Term TOP.

The study does not show any significant influence of husband or spouse on time of presentation for TOP. In an open-ended question on why the clients came for TOP (Table 4E) responses were similar in both groups majority of the reasons were due to financial constraints, lack of support (non-financial) and schooling (or too young to be a mother).

An unplanned and unwanted pregnancy can occur for a number of reasons. The WHO estimates that between 8 and 30 million unplanned pregnancies are the result of inconsistent or incorrect use of contraceptives. Lack of family planning information and supplies, as well as pressure from the sexual partner contribute to TOP (NDOH 2002).

A wanted pregnancy can become unwanted due to health problems, financial difficulties and abandonment. Religious and cultural differences can also influence the woman's decision about her pregnancy.

(WHO 1998 cited in NDOH 2002).

According to Allan Guttmacher Institute, USA, (Allan Guttmacher Institute 2000), 75% of TOP clients in USA cited interference of pregnancy with job, school or other responsibilities as reason for abortion. They also found that lack of support or unwillingness to be single parents accounted for 1/3 of the reasons for abortion in USA while financial constraint was cited in 66% of the cases. This

shows that there are 3 major reasons while women request TOP both in USA and in this study.

The history of South Africa consists of a past with many years of socio — economic inequality and development. At independence in 1994, several socio — economic changes and reforms were put in place. This affected many facets of life of an average South African and probably the sexual or reproductive behaviour. In a study carried out in Estonia (Haldre K, et al, 2005) with similar scenario, it is stated that "Major socio-economic changes, including health care reforms and changes in the school curriculum, took place in Estonia after the country regained its independence in 1991. These changes affected people's reproductive behavior in many ways."

Haldre K, et al (2005), concluded that "The case in Estonia again proves that the availability of information, contraceptives, services and education, and the existence of other goals in life besides childbearing, have an impact on teenage birth and abortion rates. Successful health promotion activities should take into consideration the differences in the reproductive behavior of different ethnic groups."

### 5.8 Conclusion.

This study was carried out to find the reasons why some women delay in presenting for TOP early in their pregnancy (before 12 weeks) when the risks are much less. The study has been able to identify some reasons/factors responsible for the late presentation as follows:

- Schooling –students often delay in coming forward for TOP due to various reasons. They often have not got enough money and are also probably afraid to tell their patients of the pregnancy early enough.
- Total annual family income of less than R10,000 which indicates low socio-economic status or poverty is also found to be a factor in women presenting late for TOP. This is probably due to lack of money for transport or lack of support.
- 3. Distance to TOP center greater than 50km women who live further than 50km were found to be more likely to present late for TOP.
- 4. Use of public transport relying on public transport only was found to be common among late presenters. This is due to poverty and lack of support. Often the public transport is erratic and often the client has no money to pay for the transport.
- 5. Perceived safest time for TOP it was found in the study that clients who have adequate knowledge of safest time to perform TOP often come early. Knowledge of pregnancy signs and symptoms and when safest to

- perform TOP is very crucial in determining time of presentation by the clients.
- 6. The study found that the reasons for requesting TOP in this area are varied (Table 4E). Most of the respondents cited financial reasons e.g. unemployment, lack of money, etc. Age is given as another common reason as some respondents feel they are too young to be mothers or are still schooling. Lack of non financial support also featured prominently among the reasons for requesting TOP. Few requested TOP as a result of rape, adultery, health conditions, family pressure or other reasons.
- 7. Problem with TOP service The Kopano TOP center serves two districts in the Free State and it is faced with some problems. The problems include shortage of trained nursing staff, inadequacy of space and inability to render 24-hour service. TOP clients that require observation or hospitalization are referred to various hospitals depending on their location and hospital bed is not always guaranteed. The shortage of staff also leads to prolonged client waiting time.

#### 5.9 Recommendations.

- 1. More TOP centers should be established in Free State and in Lejweleputswa district particularly. This will ensure improved access to TOP facilities so clients would not have to travel long distances. This recommendation is made in the light of the fact that women living in places farther than 50km are found to be more likely to present late for TOP in this study. Also if there are more TOP centers, the department of health could use the facilities as outreach posts for sex education and awareness in the community. This is because many of the late TOP clients have wrong impression of the safest time to come for TOP procedure.
- 2. Private sector involvement in TOP should be encouraged in Lejweleputswa district. At the moment there is no single registered private TOP facility in both Lejweleputswa and Northern Free State that the Kopano TOP center serves. If private alternatives are available, it will further improve access, and possibly awareness, to TOP; hence many clients who find Kopano center too far or inconvenient could have a choice of private TOP center if they could afford the cost.
- 3. Kopano TOP center needs more trained professional nurse midwives and the facility should be upgraded to a 24hour TOP center. This will reduce referral of TOP clients to hospitals and will improve access to the facility

with opportunity for thorough counseling and health education. This will be helpful in the short term, before more TOP centers are established. It will address the Nursing staff shortage identified in the study. It will also enable more Early TOP to be done per day and prevent progression of Early TOP to Late TOP while waiting for appointment.

Hopefully, these interventions will reduce the number of late term TOPs.



## **BIBILIOGRAPHY**

Abraham, L; Kumar, K.A. 1998, ."Sexual experiences and their correlates among college students in Mumbai City, India". *International Family Planning Perspectives*, December 1998, Vol. 24, N° 4 pp. 139-146

Allan Guttmacher Institute (AGI) 1999, facts in brief: *Teen sex and Pregnancy*. AGI, New York and Washington, http://www.agi-usa.org/pubs

Allan Guttmacher Institute (AGI) 2000, Induced Abortion - facts in brief Revised 2/2000. AGI, New York and Washington, http://www.agi-usa.org/pubs

Allan Guttmacher institute(AGI), June 2004, '*The world's abortion laws'*. AGI, New York and Washington, http://www.agi-usa.org/pubs

Belo MA, Silva JL.2004, "Knowledge, attitudes, and practices on previous use of contraceptive methods among pregnant teenagers" [Article in Portuguese] Departamento de Tocoginecologia, Faculdade de Ciencias Medicas, Universidade Estadual de Campinas, Campinas, SP, Brazil. Rev Saude Publica. 2004 Aug;38(4):479-87. Epub 2004 Aug 9.

Billings DL, Benson J. 2005, Postabortion care in Latin America: policy and service recommendations from a decade of operations research.

Health Policy Plan. 2005 May; 20(3):158-66.

Center for Disease Control and Prevention (CDC) Nov 29, 2002, Abortion Surveillance – United States, 1999. *Morbidity and Mortality Weekly Report* (MMWR) /Vol.51/No.SS-9.

CDC (2000) EPI INFO 2000. Atlanta: Centers for Disease Control and Prevention

Childbirth by Choice Trust (CCT) 1995. - *Abortion in Law, History and Religion*, Toronto Canada: Childbirth by Choice Trust.

Choice on Termination of Pregnancy Act bill, 1996, *Government Gazette*, RSA, No. 17602, Act No. 92 of 1996.

David HP. 1992, Abortion in Europe, 1920-91: a public health perspective. Transnational Family Research Institute, Bethesda, MD 20817. *Stud Fam Plann*. 1992 Jan-Feb;23(1): pp1-22.

De Marquiegui A. Clapham Common Clinic, Clapham Common, London, UK. 2000. Termination of pregnancy: past, present and future. *Br J Fam Plann*. 2000 Jan;26(1):17-8

De Pinho H, McIntyre D. 1997, *Cost analysis of abortions preformed in the public health sector.*Cape Town: Department of Community Health, University of Cape Town. pp1-33.

Department of Health (DOH), Free state 1999, *Termination of Pregnancy (TOP) procedure manual.* 

Department of health (DOH), Free state, South Africa, 2000, District Health Review 2000.

Dickson-Tetteh K, Beksinska M, Nkala B, Rees H.1997. *Factors that contribute to a woman's decision to seek a termination of pregnancy.* 

Encyclopedia 2005, Columbia Encyclopedia sixth edition, viewed on line at <a href="https://www.encyclopedia.com">www.encyclopedia.com</a> on July 24 2005

Gans Epner et.al, 1998 "Late-term Abortion" *JAMA*, Vol.280 No. 8 pp.724 – 729

Gaufberg SV, Alson R, Talavera F, et al. 2003 "Abortion complications" emedicine.com, viewed 3

July 2004

Haldre K, Karro H, Rahu M, Tellmann A. 2005. Impact of rapid socio-economic changes on teenage pregnancies in Estonia during 1992-2001. *Acta Obstet Gynecol Scand*. 2005 May;84(5): pp 425-31.

Harrison A, Montgomery ET, Lurie M, Wilkinson D. South Africa 2000, Barriers to implementing South Africa's Termination of Pregnancy Act in rural KwaZulu/Natal. *Health Policy Plan.* 2000 Dec;15(4):pp424-431.

Health System Trust, 1999, *South African Health Review 1999*, Ch.26. Durban: Health Systems Trust.

Henry P. David et al, 1990, "United States and Denmark: Different Approaches to Health Care and Family Planning", *Studies in Family Planning*, January/February, 1990.

Lejweleputswa District Municipality, Welkom RSA, 2004. IDP Report 2004.

Linda Gordon ,1990, Woman's Body, Woman's Right, rev. ed. New York: Penguin books.

Lisbeth B. Knudsen, Hanne Wielandt, 2000. *Legally induced Abortion – Experiences from Denmark*, Copenhagen: Danish Center for Demographic Research – Research report 18, 2000.

Mark H. Beers et al, 2005, *Merck Manual*, 2<sup>nd</sup> Home Edition Ch. 255, CITY: Merck Research Laboratories.

Marlene Gerber Fried, Maureen Paul, 1998, Boston Women's Health Collective. Boston:

Touchstone.

Mqhayi MM, Smit JA, McFadyen ML, Beksinska M, Connolly C, Zuma K, Morroni C. 2004. *Missed opportunities: emergency contraception utilisation by young south African women. Afr J Reprod Health.* 2004 Aug;8(2):pp137-44.

National Department of Health (NDOH), 2002. *Epidemiological comments*, Vol.5, No.1. Pretoria: National Department of Health.

National Department of health (NDOH). 2001, *Statistical notes*. Vol. 3 No.1. Pretoria: National Department of Health.

National Department of Health (NDOH), 2000, *An Evaluation of the Implementation of the Choice on Termination of Pregnancy Act*. Pretoria: National Department of Health.

Ngwena C, Engelbrecht M, unpub, *Identification of Barriers to Accessing Termination of Pregnancy by minors in the Free State and Possible Interventions.* Centre for Health Systems Research and Development. University of the Orange Free State

Olaseha IO, Ajuwon AJ, Onyejekwe OC., 2004, Reproductive health knowledge and use of contraceptives among adolescent mothers in a sub-urban community in Oyo State, Nigeria.. *Afr J Med Med Sci.* 2004 Jun;33(2):pp139-43. Reproductive Rights Alliance (RRA). 1998. "*Abortion and Reproductive health in South Africa*" cited on the web, <a href="www.hst.org.za/rra/abrh.htm">www.hst.org.za/rra/abrh.htm</a>, viewed on March 17 2003.

Robinson B.A. 2004, "Why do Women want to have an Abortion" Ontario Consultants on Religious Tolerance. http://www.religioustolerance.org/abo\_why.htm#late

School of Public Health (SOPH), 2003, University of Western cape (UWC),

Thesis Workshop Jan. 2003.

Statistic South Africa, Persons and Services, 2004, viewed on the web on 15 Feb. 2005 at space – Time Research web page: <a href="https://www.statssa.gov.za">www.str.com.au</a> and <a href="http://www.statssa.gov.za">http://www.statssa.gov.za</a>

Sunshine for Women, 1998 "*A brief History of Abortion"*. Sunshine for women essays <a href="http://www.pinn.net/~sunshine/main.html">http://www.pinn.net/~sunshine/main.html</a>

World Health Organization 1998 cited. World Health Day /Safe Motherhood, 7 April 1998: *Address Unsafe Abortion.* 

Zimmermann R. et al, 1997. <a href="mailto:roland.zimmerman@fhk.usz.ch">roland.zimmerman@fhk.usz.ch</a> – Passage through abortion .New York: Praeges publishers (University of Zurich).

# APPENDIX A Consent Form and Questionnaire



# **CONSENT FORM.**

I(Initials only) hereby co	onsent to participate in this		
research study on termination of pregnancy and in doing so I am confirming that			
I have not been forced or put under any press	ure to participate. I also confirm		
that the purpose and details of the research ha	ave been fully explained to me and		
that I understand them. In addition I have been	en told that I can withdraw my		
participation at any stage of the study and tha	t my comments, written or verbal,		
will be kept anonymous and confidential. Furth	nermore I have not been offered		
any reward, in cash or kind, for my participation	on and I confirm that my consent is		
voluntary.			
Short Signature/Thumbprint of	Short Signature/Thumbprint of		
Participant.	Witness.		

In case of any concern or problem, please contact the researcher,

Dr. John Akinbohun Tel: \*\*\*\*\*\*\*

# TOP QUESTIONNAIRE

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SECTION 2: To be asked of mother

<u>Please read to respondents</u> – thank you for accepting to participate in this survey. This questionnaire is designed to for a study being carried out by a UWC student on TOP service as part fulfillment of his MPH degree programme. Any information submitted here will be treated as confidential and participation in this survey is optional.

Interviewer - Please mark appropriate box with X

1.	Age range	< 15	
		15 – 19	
		20 – 24	
		25– 29	
		30 – 34	
		35 – 39	
		40 – 44	
		45 - 49	
		> 50 >	
2.	Marital status		
		Single	
		Married	
		Separated	
		Divorced	
		Widowed	

3.	Religion	Christian Muslim	
		African traditional religion	
		Unbeliever	
		Others	
4	Race		
	Nacc	African (Black)	
		Caucasian (White)	
		Asian	
		Coloured	
5.	Level of Education	Never attended formal school	
		Primary School	
		High School	
		Technikon and/or University	
6.	Employment/Occupation	on	
		Unemployed	
		Part-time employment	
		Full-time employment	
		Self-employed	

		Schooling/Student only	
	*Interviewer please	note that Part-Time should include piece or	
	per diem work.		
7.	Family total income (in	rands) per annum.	
		< 10000	
		10000 – 29000	
		30000 – 49000	
		50000 - 69000	
		70000 – 89000	
		> 90000	
8.	Where do you live ?		
Int	terviewer please ask abo	out the Town and the area where the respond	dent stays
an	d comes from today.		
9.	How did you travel to t	his TOP centre today	
		> I walked	
		➤ I took a taxi/Public transport	

> My own vehicle

> A friend/relative brought me in his/her car

	> Others	
10. If you paid for your	transport to this TOP centre, how much?	
11. Number of children	?	
	No children	
	1 - 3	
	4 – 6	
12. Smoking	= > 7	
	Never smoked	
	Smoked before but stopped	
	Smoking sometimes	
	Smoking regularly	
13.Alcohol		
	Never drank alcohol	
	Drink alcohol before but stopped	
	Drinking sometimes (socially)	
	Drinking regularly (almost daily)	

14.Other drugs e.g. marijuana, cocaine, heroine, m	andrax, etc?
Never used any	
Used some before but st	topped
Using one or more now	
If any please specify	
15.Sexual behaviour	
(a) Number of sexual partners in the last 1 year	r.
Only one and married	
Only one and not married	
Two only	
More than 2	
(b) Condom use	
Never used condom and unmai	rried
Never used condom and marrie	ed 🔲
Uses condom occasionally	
Uses condom always	
(c) Age at first Intercourse	
Less that 12 years	
12 – 16	
>16 – 18	

>18 -	- 20	
20 +	<b>-</b>	
16.Family planning / contr	raceptive service	
	Do you know where to get contraceptives?	
	Yes No	
17.If yes to question 16-		
-	Do you use contraceptive regularly	
-	Do you use contraceptive only sometimes	
	(irregularly).	
-	I do not use contraceptive at all	
18.If using contraceptive,	which type do you use?	
	Depo Injections (including Nur-Isterate)	
	Tablets (Pills)	
	IUCD	
	Condoms	
	Others	
19.If yes to question 16 b	ut not using contraceptives? : Why are you n	ot using
contraceptive?		
	My Husband/Boyfriend refuse	
	My parent/quardian refused	

	My church/religion forbids	
	I don't like them	
	I react to them	
	I do not like their side effects	
	Other reasons	
20.How did you find out a	bout TOP service	
	Friends	
	Radio/TV	
	Newspaper	
	Department of Health pamphlets	
	PHC clinic	
	Social worker	
	Family planning clinic	
	My doctor	
	Other, Specify	
21.Did you know of TOP s	ervice before you got pregnant this time?	
	Yes No	
22.If no to above question	, when did you get to know about the TOP ser	vice?
	12 weeks pregnant (3 months) more than 12 weeks pregnant but less than 20	weeks
(3 months to	5 months)	

When I was more than 20 weeks pregnant (5 months or more)	
23. How long ago before today did you discover that you were pregnant?	
······································	
24. Is this your first time to come for TOP ? YES / NO	
25. If no to question 24, how many times and why?	
At what stages of pregnancy were TOP done on each occasion.	
26. How did you decide the time to come for TOP now?	
I think I can come anytime	_
I have just discovered that I am pregnant	
My husband/boyfriend did not agree in time	
I did not make up my mind in time	
I did not have time to come earlier	
I did not have money to come earlier	
Transport problems	
Other reasons	$\neg$

Instruction to interviewer – please probe/explore with the client the full story around her pregnancy recognition and decision to come here today. Take detailed notes below (use back or additional pages if necessary). This will help us contextualise the experience of each woman in terms of her own story and problems. ]

26a. Explain all reason/s above here



Before 12 weeks (1 <sup>st</sup> 3 months) of pregnancy	
Between 12 – 20 weeks (3 to 5 months) of pregnancy	
After 20 weeks (5 months) of pregnancy	
Anytime	

27. When do you think it would be safest for you to do TOP?

Do not know ......

Others .....

Interviewer - At the end of the interview, please thank the mother for her time and cooperation with this project.