

# **Knowledge of contraception and barriers to contraceptive use in women undergoing repeat termination of pregnancy**

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**Dissertation submitted in partial fulfilment of the requirements for the degree  
MMed (Obstetrics and Gynaecology) of the University of Cape Town**

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## Declaration

I, Kwabena Essel, hereby declare that the work on which this dissertation/thesis is

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## Declaration by supervisor

The research which Dr Kwabena Essel has undertaken and the presentation of this dissertation was supervised by Zephne van der Spuy, Emeritus Professor of Obstetrics and Gynaecology.

I am satisfied that this was Dr Essel's original work and that this dissertation should be submitted in part fulfilment of the requirements of the degree Master of Medicine in Obstetrics and Gynaecology of the University of Cape Town.

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## Abstract

**Aims:** The rate of repeat terminations of pregnancy (TOPs) has been steadily increasing in the developed world.<sup>24</sup> This rate varies from 30-38% in northern Europe to 47% in USA.<sup>18</sup> There are however no reliable statistics for South Africa. The reasons women have TOPs are multifactorial and the knowledge of contraception 15 years after the passing of The Choice on Termination of Pregnancy Act is unknown among this group. The aim of this study was to assess the knowledge of contraception and barriers to contraceptive use in women undergoing repeat termination of pregnancy.

**Methods:** A descriptive cross-sectional study was conducted in Cape Town involving 102 clients requesting repeat termination of pregnancy. An investigator-administered questionnaire was used to interview clients and this was completed at the initial visit prior to the termination of pregnancy. The questionnaire included the participant's demographic details, investigation of their current and previous TOPs, knowledge and use of contraception and TOP care received in the past. The perceived barriers to contraceptive use was also explored.

**Results:** The most common forms of contraception the participants had ever heard of were the male condom (98%), the injectable progestogen (97%) and the combined oral contraceptive pill (90%). The contraceptive methods ever used by participants were the injectable progestogens (81%), male condoms (67%) and the combined oral contraceptive pill (35%). Prior to the current pregnancy 47.1% (n=48) participants used the male condom, 34.3% (n=35) admitted to using no form of contraception and 14% used injectable progestogens.

The majority of participants cited financial constraints (39.2%, n=40) as the main reason for having the TOP, this was followed by their last child been too young (14.7%, n=15) and not wanting any more children as she already had completed her family (12.7%, n=13). Most participants interviewed had previously accessed family planning services (85%, n=87), and the majority (83.9%, n=73) indicated that they found the services to be helpful and approachable. The hours of the family planning service were suitable for 72.4% (n=63), while 25.3% (n=22) found the hours not convenient and 2.3% (n=2) did not comment.

Of the 102 participants interviewed, fifty four (52.9%) indicated that contraceptive services could be improved, 30.4% (n=31) were happy with the services and 16.7% (n=17) were not sure about the service. The majority of participants suggested the following factors would improve contraceptive services: avoiding long waiting periods (15.7%, n=16), education of women (12.7%, n=13) and change in attitudes of health care practitioners (10.8%, n=11)

**Conclusion:** The participants had a reasonably good knowledge of contraception, but poor contraceptive usage and adherence. Most unplanned pregnancies in this study were related to either the non-use of contraception or the use of inefficient methods of contraception. The limited use of the highly effective long acting reversible contraception and emergency contraception was also highlighted. The barriers to contraceptive access and use were the long waiting periods at health care facilities and the neglect of post-TOP assessment and contraceptive review.

University of Cape Town

## Abbreviations

- TOP Termination of pregnancy
- REC Research Ethics Committee
- mg Milligram
- mcg Microgram
- USA United States of America
- IUD Intrauterine device
- EC Emergency contraception
- COC Combined oral contraceptive
- POP Progesterone only pill
- IUS Intrauterine system
- LARC Long acting reversible contraception

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## CHAPTER 1:

### Introduction and literature review

The Choice of Termination of Pregnancy Act was implemented in 1996. This Act “repeals the restrictive and inaccessible provisions of the Abortion and Sterilization Act, 1975 and promotes reproductive rights and extends freedom of choice by affording every woman the right to choose whether to have an early, safe and legal termination of pregnancy according to her individual beliefs”.<sup>1</sup> This was further amended in February 2008 to make termination of pregnancy more efficient and safe. The amendment included the following:<sup>2</sup>

- to exempt a facility offering a 24-hour maternity service having to obtain approval for TOP services.
- to provide for the recording of information and submission of statistics.

A total of 69 894 terminations of pregnancy were reported in South Africa from 1996 to 1998. There has been a consistent increase in the number of TOPs since then, with 83 913 TOPs reported in 2006 with the Gauteng province having the highest number.<sup>3,4</sup> The high number of TOPs in Gauteng may be due to efficient services or use of these services by women from neighbouring provinces such as Mpumalanga, North West and Northern Provinces where services are possibly less accessible.<sup>3</sup> Table 1.1 on page 11 records the number of TOPs performed from 1997-2007 in each province in South Africa.<sup>4</sup> Unfortunately there is incomplete data collection and the figures for 2006 and 2007 are an underestimate. In addition the sudden drop in 2007 in KwaZulu Natal needs explanation.<sup>4</sup>

In early pregnancy both medical and surgical methods can be used for termination of pregnancy. At later gestations, surgical methods and medical induction of labour are available techniques. In the first trimester, the surgical method involves the use of suction or vacuum aspiration. The cervix is dilated mechanically or with prostaglandin medication, and then, a suction curette is used to remove the products of conception. Suction curettage can be safely performed as early as 5 weeks through the end of the first trimester.<sup>5</sup>

Medical TOP refers to the complete expulsion of the products of conception without surgical intervention although evacuation of retained products of conception may be required. In the public health sector in South Africa, misoprostol as a single agent is widely used. In the private health sector and in industrialized countries mifepristone followed by misoprostol or other prostaglandins is the regimen of choice.

**Table 1.1: Termination of pregnancy in South Africa 1997-2007.**<sup>4</sup>

	EC	FS	GP	KZN	LP	MP	NC	NW	WC	TOTAL FOR SOUTH AFRICA
<b>1997</b>	2670	2527	13497	1259	570	1489	429	218	3796	26455
<b>1998</b>	2938	4107	19005	5167	823	1857	552	455	5008	39912
<b>1999</b>	3109	4062	19195	5766	1288	2269	642	2166	5741	44238
<b>2000</b>	3264	6919	15172	11592	1962	3697	583	2286	6697	52172
<b>2001</b>	4652	4824	19970	4688	4254	3520	738	3021	8300	53967
<b>2002</b>	5814	3949	18227	9592	4706	3218	910	3070	10065	59551
<b>2003</b>	6819	4952	29021	11015	4236	2206	779	2011	10513	71552
<b>2004</b>	6210	8343	37806	10602	4587	3757	1408	3165	11157	87035
<b>2005</b>	10034	8890	33727	12706	4357	1346	1305	2336	15149	89850
<b>2006</b>	10015	7834	32464	9679	4241	-	1418	4948	13314	83913*
<b>2007</b>	-	7142	21844	3883	6506	-	1734	1377	13959	56442*

EC: Eastern Cape, FS: Free State, GP: Gauteng, KZN: KwaZulu-Natal, LP: Limpopo, MP: Mpumalanga, NC: Northern Cape, NW: North West, WC: Western Cape, ZA: South Africa. [-indicates no information available; \* indicates incomplete data collection.]

A Cochrane review on medical methods for first trimester abortion concluded that the combined mifepristone and misoprostol regimens are more effective than single agents.<sup>6</sup> Mifepristone is initially administered as a 200mg oral dose and then followed by 800mcg of vaginal misoprostol 48 hours later. The complete abortion rate was 97% in women up to 9 weeks gestation in a study conducted by Schaff et al.<sup>7</sup> in New York, USA in 2000, where they assessed the effect of low dose mifepristone followed by vaginal misoprostol at 48 hours for abortion up to 63 days

Dilatation and evacuation is a surgical technique used for termination of pregnancy in the second trimester. Evacuation of fetal tissue requires cervical dilatation to a diameter greater than in the first trimester. Prostaglandins or osmotic dilators can be used to assist cervical dilatation. Labour induction is the medical method commonly used in the second trimester.<sup>5</sup>

In industrialized countries such as the USA, legal TOPs were first carried out in 1973. In the 1973 Roe versus Wade decision, the Supreme Court ruled that women, in consultation with their physicians could choose to have a TOP in the early stages of pregnancy without restrictions, provided viability had not been reached.<sup>8</sup>

The USA has one of the highest rates of TOP in the developed world. More than 45 million legal abortions were performed from 1973 to 2005.<sup>9</sup> It is estimated that at least half of American women will experience an unintended pregnancy by age 45, and, at current rates, about one-third will have had an a termination of pregnancy.<sup>10, 11</sup> There is therefore an associated increased rate of repeat TOPs. Numerous reasons were given in a study conducted by Finer et al.<sup>12</sup> in 2004 in the United States of America where they assessed the reasons why American women have TOPs. Seventy four percent of women said that having a baby would interfere with work, school or the ability to care for dependents; 73% said they could not afford a baby now; 48% said they did not want to be a single parent or were having relationship problems.

Nearly 4 in 10 said they had completed childbearing, and almost one-third were not ready to have a child.

In the USA, the risk of complications from TOP is less than 0.5%.<sup>11</sup> First trimester procedures are safer than second trimester procedures. Bartlett et al.<sup>13</sup> in their study of mortality associated with TOP conducted in Atlanta, USA, in 2004 demonstrated maternal mortality rates of 0.1-0.4 deaths per 100000 in the first trimester and 1.7-8.9 in the second trimester which is equivalent to other industrialized countries.

Most unsafe TOPs occur in developing countries. The World Health Organization (WHO) defines unsafe abortion as a procedure meant to terminate an unintended pregnancy that is performed by individuals without the necessary skills, in an environment that does not conform to the minimum medical standards, or both.<sup>14</sup> Most Sub-Saharan African countries have restrictive abortion laws. TOP is not permitted for any reason in 14 African countries. There are however a few countries with liberal abortion laws. South Africa, Tunisia and Cape Verde allow TOP without restriction as to reason but with gestational limits and Zambia permits TOP on socioeconomic grounds with gestational limits. Estimates based on figures for the year 2000 indicate that 19 million unsafe TOPs take place each year, that approximately one in ten pregnancies end in an unsafe TOP, giving a ratio of one unsafe TOP to about seven live births. Worldwide an estimated 68000 women die as a consequence of unsafe TOPs every year. In developing countries the risk of death is estimated at 1 in 270 unsafe TOP procedures.<sup>14-16</sup>

In 2006, Singh<sup>16</sup> reviewed the hospital admissions resulting from unsafe abortions in developing countries. To achieve this, the national data for 13 countries were used. For Sub-Saharan Africa, data used were from the following five countries: Burkina Faso, Ghana, Kenya, Nigeria and South Africa. All the studies rely on data obtained between 1989 and 2003, with most from the late 1990s. It was demonstrated that the annual rates of hospitalization varies from a low of about 3 per 1000 women in Bangladesh to a high of about 15 per 1000 in Egypt and Uganda. Nigeria, Pakistan, The Philippines have rates of 4-7 per 1000, and Peru and Guatemala have rates of almost 9 per 1000. In the developing world, an estimated 5 million women are admitted to hospital for treatment of complications from unsafe abortions each year. This equates to an average rate of 5.7 per 1000 women per year in all developing regions, excluding China.<sup>16,17</sup>

Repeat termination of pregnancy has now become a worldwide problem with increasing numbers seen in Europe and United States of America. The rate of repeat termination of pregnancy varies from 30%-38% in northern Europe and 47% in the United States of America. In industrialized countries complications resulting from TOPs are minimal compared to the number being performed. This is unfortunately not the case in developing countries, especially Sub-Saharan Africa where complications such as uterine perforations, bleeding, endomyometritis, pelvic sepsis, infertility resulting from hysterectomy secondary to complications and death are high due to unsafe TOPs.<sup>18</sup>

South Africa was the first country in Sub-Saharan Africa in which women had the right to obtain a TOP on request during the first 12 weeks of pregnancy.<sup>19</sup> From the 13<sup>th</sup> week up to and including the 20<sup>th</sup> week, TOP is permitted if continuing the pregnancy would pose a risk to the woman's physical or mental health, if it would result in the fetus suffering from a severe physical or mental abnormality, if the pregnancy resulted from rape or incest or if continuing the pregnancy would significantly affect the social or economic circumstances of the woman. After the 20<sup>th</sup> week, TOP is permitted if continuing the pregnancy will endanger the woman's life or will result in a severe malformation of the fetus or would pose a risk of injury to the fetus.<sup>1</sup> This ensured that South Africa was one of the countries with the most liberal abortion laws in the world. Despite this, there are still complications and hospitalizations as a result of unsafe procedures.<sup>1, 19</sup>

There have been challenges in the implementation of TOP services in South Africa. The lack of health care practitioners trained to perform termination of pregnancy has been identified as a major problem. Poor access to information has been highlighted as a reason for ongoing unsafe TOPs. There was no nationwide drive to inform people about the new TOP law. As a result of this lack of public education only 53% of the South African population in 1998 knew that pregnancies could be terminated legally in the first 12 weeks of gestation.<sup>20, 21</sup>

A study by Morroni et al.<sup>22</sup> conducted in the Western Cape in 2006 demonstrated that 32% of women did not know that the law in South Africa allows for legal TOP, and this was higher in the rural regions with a rate of 40%. The attitude of health care providers and the general population also contributes to inefficient TOP services. There are often delays in women

seeking TOPs, resulting in a greater proportion of TOPs been performed in the second trimester, thereby increasing the risk of complications.<sup>22</sup>

In a study by Harries et al.<sup>23</sup> carried out in Cape Town in 2006, the reasons why women delayed seeking TOP were complex and often interrelated and in turn affected the timing when the abortion was carried out. Emotional responses to an unplanned pregnancy such as shame, fear and indecision were contributing factors in delaying access to abortion services. Many women highlighted the negative and judgmental attitudes displayed by staff at public health facilities and related instances where staff were not only rude and hostile but attempted to dissuade them from having a TOP. Some women were reluctant to visit clinics within their communities for fear of being recognized and ostracized. A woman who chose to obtain a TOP outside of her residential area was still concerned about being seen. We need to deal with stigma and structure our services accordingly.<sup>23</sup>

Alouini et al.<sup>24</sup> evaluated the knowledge about contraception in women undergoing repeat voluntary TOPs, and the means of preventing these. This study was conducted in Paris, France where there has been an increase in repeat TOP rates. Important issues were that most women were unaware of the existence of emergency contraception (the 'morning after' pill) for unprotected coitus and what 'backup' measures they should undertake for missing a pill. This study showed that patients who have undergone two TOPs might benefit, in addition to their routine visits, from a consultation with a psychologist and information about contraception. They also concluded that providing the contraceptive pill free of charge to low-income patients is essential.<sup>24</sup>

Palanivelu et al.<sup>25</sup> conducted a retrospective analysis of the contraceptive practices in 159 women referred for termination of pregnancy. Of the 159 patients, 26.4% had one prior TOP and 3.1% had two previous TOPs. Seventy eight percent of these women used a contraceptive method after the previous TOP. Only 61.9% were using a method of contraception at the time of presentation. The barrier method was used by 69% of this group, the combined oral contraceptive was used by 23%, the progestogen only pill by 3% and the intrauterine device by 3%. Women undergoing repeat TOPs were either not using contraception or using a method with a high failure rate. The unintended pregnancies were either due to women discontinuing

contraceptive use or inappropriate use of contraception and represented user failure rather than true contraceptive failures.<sup>25</sup>

Garg et al.<sup>26</sup> have taken this a step further in their study which was carried out in the United Kingdom. A self-administered questionnaire was used to determine the contraceptive practices and details of peri-TOP contraceptive counselling received by 50 women undergoing a repeat, and 83 women undergoing a first-time TOP. Ninety eight percent of women undergoing a repeat TOP reported using contraception at the time of conception, as compared to 83% of women undergoing a first-time TOP. Condoms were the main method used by 57% of women undergoing a repeat and 70% undergoing a first-time TOP. The combined oral contraceptive pill was used by 37% of women undergoing a repeat and 25% undergoing a first-time TOP. They emphasized the need for women to be counselled that oral contraception requires user compliance and that barrier methods used alone are ineffective. The key message was that the superior effectiveness of the IUD and progestogen injectables needs to be highlighted during the counselling.<sup>26</sup>

This is similar to a study undertaken in San Francisco, USA, by Goodman et al.<sup>27</sup> where the Impact of immediate post-abortal insertion of intrauterine contraception on repeat abortion was assessed. It demonstrated that women who received an immediate post-abortal IUD had a lower rate of repeat abortions, (34.6 abortions per 1000 woman-years compared to 91.3 for the control group).<sup>27</sup> Reeves et al.<sup>28</sup> studied the contraceptive effectiveness of immediate compared with delayed insertion of intrauterine devices after abortion and showed this practice prevented 52 pregnancies over 1year for every 1000 women who had TOPs.

As already highlighted, ideally unintended pregnancies should be prevented. To achieve this, women at risk for repeat TOPs, that is women with a previous TOP should be identified and necessary post-abortion care provided. This was demonstrated in a retrospective study by St. John et al.<sup>29</sup> where they found that the strongest predictors of having more than one TOP were age and parity. In this study, women undergoing a second or subsequent TOP were found to be more likely to be older and had experienced more pregnancies to full term. The aim would be to target these at risk women to prevent recurrence. Prager et al.<sup>30</sup> analysed the risk factors for repeat elective abortion in the USA. They showed that women who present for repeat abortions are more likely to have been using some method of contraception and were older

compared to women having their first abortion. They were also more likely not to be married and experiencing a difficult relationship with their partner. There was also an association between women requesting repeat TOPs and alcohol and drug abuse.<sup>30</sup> The findings of the above study are consistent with a study by Fisher et al.<sup>31</sup> which was conducted in Ontario, Canada in 2005 where the characteristics of women undergoing repeat induced abortion was evaluated.

Emergency contraception(EC) has been called the best kept contraceptive secret. Several regimens of postcoital contraception offer safe and effective ways for women to avoid pregnancy. Five regimens of EC currently in use are: the oestrogen/progestin combination of ethinyl oestradiol and levonorgestrel, known as the Yuzpe regimen; levonogestrel-only regimens; the copper intra-uterine device; danazol and mifepristone.<sup>32</sup>

To determine the knowledge of, attitudes toward and use of emergency contraception, among South African women, Smit et al.<sup>33</sup> conducted a survey where 1068 clients of public sector primary healthcare facilities in two urban and two rural areas of South Africa were interviewed. The surveys were conducted in 89 public healthcare facilities, fifty eight of these facilities were in urban (30) or rural (28) areas of the Western Cape, 14 were in rural Kwa-Zulu Natal and 17 in urban facilities in Gauteng province. Only 22.8% of women had heard of EC and awareness was significantly lower in the most rural area and among older, less educated women. Forty seven percent of women were unsure of the appropriate interval between unprotected coitus and starting EC and 57% did not know it was available at the clinic. Only 9% of the women who knew about EC had used it, and none had used it more than once. After explaining EC to these women, 90% of them indicated that they would use it if indicated, 89% indicated they would be willing to pay for it and 92% said they would recommend it to a friend.<sup>33</sup>

Teenage pregnancy is currently a worldwide problem. A teenager is defined as a person between the ages of 13 and 19 years, while the WHO defines adolescents as young people between the ages of 10 and 19 years.<sup>34</sup> In South Africa there were 66000 teenage pregnancies reported in 2002, this increased to 86000 in 2004 and dropped to 71000 in 2006.<sup>35</sup> In the USA, approximately 800,000-900,000 adolescents aged 19 and younger become pregnant each year. Also of importance in the USA, four out of five pregnancies in teenagers are unintended and about one third of all adolescent pregnancies end in induced abortion.<sup>36</sup>

Numerous studies have demonstrated teenagers as poor contraceptive users and most of them delayed contraception up to a year after becoming sexually active. Zabin et al.<sup>37</sup> in their study in the USA in 1980, evaluating why teenagers delay seeking contraception demonstrated that teenagers only access contraceptive services after a 'pregnancy scare'. Nearly 4 in 10 teens came to the clinic only because they feared they were pregnant, only 1 in 7 came for help in anticipation of their first sexual encounter.<sup>37,38</sup>

A study by Ferguson et al.<sup>39</sup> conducted in Christchurch, New Zealand showed that teenage pregnancy is associated with educational under-achievement, poverty, welfare dependence, domestic violence and poor social relationships. Teenagers were shown to be more likely to delay having an abortion, as compared to women over 20 years of age. Finer et al.<sup>40</sup> in their study in 2004, where the timing of steps and reasons for delays in obtaining abortions in the United States of America were evaluated concluded that this may be due to physiological factors where teenagers failed to recognize the signs and symptoms of pregnancy. This may also be due to social reasons where teenagers may be unsure of where to seek assistance or deny pregnancy due to fear of repercussions from family members or a partner.<sup>39,40</sup>

Teenagers who choose to have an abortion tend to have better socioeconomic status, higher educational aspirations and achievements. This is shown in the study by Ferguson et al.<sup>39</sup> where young women who become pregnant before age 21 and seek abortion have significantly better educational outcomes than those who become pregnant before 21 but do not seek an abortion.

Published data have also attributed the increased rates of teenage pregnancy in the USA to government policies.<sup>41</sup> The teenage pregnancy rate declined 41% between its peak in 1990 (116.9 pregnancies per 1000 women aged 15-19), and 2005 (69.5 per 1000). Teen birth and TOP rates also declined, with births dropping 35% between 1991 and 2005 and teen TOP declining 56% between its peak, in 1988 and 2005.<sup>41</sup> There has been a steady increase since 2006 due to emphasis on the ineffective abstinence only programs by the Bush administration. In 2006, there were 71.5 pregnancies per 1000 women aged 15-19, which implies that about 7% of teenage girls became pregnant in 2006.<sup>42</sup> Non-marital abstinence promotion was the main

message disseminated while the benefits of contraception were neglected. The teen pregnancy prevention initiative signed into law in December 2009 is expected to rectify this.<sup>41, 42</sup>

In 2006, the USA teen birth rate was 41.9 births per 1000 teens aged 15-19. By way of comparison, the U.S teen birth rate is one and a half times higher than the teen birth rate in the United Kingdom (26.7 per 1000) which has the highest teen birth rate in Europe. The United Kingdom teen birth rate is seven times higher than the teen birth rate in the Netherlands (3.8 per 1000) which has among the lowest teen birth rate in Western Europe. Sexual debut in teenage girls in the United Kingdom is 15 years. However, in the Netherlands, age of first coitus is 17.7 years. Sexually active teenage girls in the Netherlands at 15 years of age were more likely to be using contraception as compared to teenage girls from the United Kingdom (61% vs 23%). The Netherlands also has among the lowest teenage TOP rates in Europe, in 2007 the TOP rate in 15-19 year olds was 7.4 per 1000, as compared to the United Kingdom where the rate for under 18 year olds was 19.8 per 1000 and the rate for 19 year olds was 36 per 1000.<sup>43-46</sup>

There is considerable concern expressed by practitioners involved in Women's Health and TOP service providers in South Africa that women are presenting for repeat terminations and are not accessing contraceptive services. This study aimed to assess women presenting for repeat TOP within our service and to assess their knowledge of contraception and perceived barriers to contraceptive use. We also planned to review their experience of counseling and contraceptive advice following their first TOP.

## CHAPTER 2:

### Methods

The aim of this study was to evaluate the knowledge of contraception in women undergoing repeat termination of pregnancy. Contraceptive use was assessed. Barriers to contraceptive use and counselling after their previous TOP was also evaluated.

This was a descriptive cross-sectional study. The study population were women presenting for repeat termination of pregnancy within our clinical service.

The inclusion criteria of the study were:

- *Any woman with a previous TOP or TOPs requesting a repeat procedure.*
- *Women willing to participate in the study.*

The exclusion criteria were:

- *Women below 16 years of age.*
- *TOP for fetal anomalies.*
- *TOP following rape.*
- *Patients who cannot understand the implications of the study.*

The patients were recruited from the Termination of Pregnancy services at Groote Schuur Hospital, GF Jooste Hospital, New Somerset Hospital and Mitchell's Plain District Hospital. Patients were recruited between October 2010 and March 2011. The questionnaire was available in English, Afrikaans and Xhosa since these are the main languages spoken in the Western Cape.

All patients presenting for TOP on request and fulfilling the eligibility criteria were enrolled into the study. The study sites were informed of the study, the inclusion and exclusion criteria and the recruitment criteria. The investigators informed eligible patients of the study and offered appropriate counselling if they wish to participate. All participants were required to give informed consent for enrolment in the study.

A questionnaire was administered by the investigators and completed at the initial clinic visit before the TOP was performed. In an attempt to reduce bias, the TOP was provided by a different team of clinicians to those involved in this project. This study did not interfere with the routine counselling and follow up for all TOP patients. The investigators ensured that confidentiality was maintained and the patients were interviewed in a private room.

The questionnaire included demographic details and characteristics of the patients:

- *Demographic details include, age, parity, marital status, level of education, social history, financial means.*
- *Support systems, history of abuse.*
- *Investigation of previous TOPs: the number of TOPs, reason for TOPs and gestational age, method of TOP, knowledge of contraception and emergency contraception.*
- *Post-abortion care previously received: Contraception advice, social worker/ Psychologist review, follow-up care.*
- *Barriers to accessing contraceptive services will be explored.*

The questionnaire is attached as **Appendix 1**

Eligible patients not willing to participate in the study were assured that this would not jeopardize their present or future treatment. Any patient queries were appropriately dealt with by the investigator or clinicians at the clinic. The principal investigator processed all data under the supervision of the study supervisor.

Patients were required to give written informed consent. Counselling was performed by the principal investigator or members of the Reproductive Medicine Unit explaining what the trial entails and how their involvement may ultimately improve the provision of medical care and women's health. The participants were required to complete the questionnaires with an investigator while waiting for the pre-abortion counselling. The time required to complete the questionnaire was 15 minutes and this ensured there were no long waiting periods.

The informed consent form and patient information sheet are attached as **Appendix 2**.

The study was initiated after receiving approval from the Research Ethics Committee (REC) of the Faculty of Health Sciences of the University of Cape Town. Participation was entirely voluntary and patients were reassured that they could elect to withdraw at any time from the study without giving a reason and that this will not adversely affect their care. Anonymity and confidentiality was maintained. Participants were not offered any remuneration to take part in the study. The consent from the REC is attached as **Appendix 3**.

#### Data management and statistical analysis

All data was verified by the principal investigator and questionnaires and data entry forms were retained to ensure validity of entries. Statistical analysis was performed using the SPSS statistical software version 19. Statistical analysis included the following:

- *The demographic details of the participants were presented in a descriptive manner.*
- *To test for association between the TOP groups (one previous TOP vs. two or more previous TOPs) and their demographic characteristics, the t-test was used for normally distributed variable, Kruskal-Wallis tests for skew data and chi-squared test for categorical data.*

## CHAPTER 3:

### Results

A total of one hundred and two women presenting for a repeat termination of pregnancy were interviewed. No patient refused to participate in the study and all participants completed a questionnaire administered by the investigators.

#### Demographics

The median age of the participants was 28 years with a range of 18-44. Thirty four percent of the women interviewed were between 25-29 years and 83% were between the ages of 18-35 (Table 3.1). Age is normally distributed (Shapiro-Wilk test,  $p>0.05$ ).

**Table 3.1: Age of participants in years.**

Age (Years)	n (%)
<20	5 (4.9)
20-24	19 (18.6)
25-29	35 (34.3)
30-34	25 (24.5)
35-39	14 (13.7)
>40	4 (3.9)

The majority of women were of the Christian faith belonging to denominations other than Protestant and Roman Catholic (43%,  $n=44$ ). The next most common religion was protestants (33.3%,  $n=34$ ), followed by Roman Catholic (12.7%,  $n=13$ ), then muslim (5.9%,  $n=6$ ) and African traditional (4.9%,  $n=5$ ). There were no women who said they practiced no religion.

Of the women interviewed, 79 were single, of these 22 women were not in a relationship, 38 women were in a relationship but not cohabiting and 19 were in a relationship and cohabiting. See Table 3.2

**Table 3.2: Marital status**

<b>Marital Status</b>	<b>n (%)</b>
Single	22 (21.6)
Single (Stable, not cohabiting)	38 (37.3)
Single Cohabiting	19 (18.6)
Married	17 (16.7)
Separated	5 (4.9)
Widowed	1 (1.0)
Total	102 (100)

We assessed the educational attainments of our patients and found that eighty five women, (83%) had some secondary school education, however many of them had not completed secondary school and 13 women, (12.7%) had a tertiary education. Four women had only a primary school education. This information is presented in Table 3.3

**Table 3.3: Level of education**

<b>Level of education</b>	<b>n (%)</b>
Grade 1-7 (Primary)	4 (3.9)
Grade 8-12 (Secondary)	85 (83.3)
Tertiary	13 (12.7)

The employment status of our patients was reviewed and the majority of women, 47.1% (n=48) were unemployed, 26.5% (n=27) were in formal employment and 20.6% (n=21) were employed in the informal sector and therefore did not have a steady income. Five students (4.9%) were interviewed. This information is shown in Table 3.4.

**Table 3.4: Employment status of participants**

<b>Employment Status</b>	<b>n (%)</b>
Unemployed	48 (47.1)
Formal employment	27 (26.5)
Informal employment	21 (20.6)
Self employed	1 (0.98)
Student/Scholar	5 (4.9)
Total	102 (100)

The main language spoken by most women was Xhosa (63.7%, n=65), there were 7 women who spoke 3 other African languages (French, Swahili, Shona). Women were given a choice of language of interview based on the predominant languages spoken in the Western Cape (English, Afrikaans and Xhosa). All the women chose to be interviewed in English.

### **Social history**

Most of the clients stated that they did not use any alcohol (91.2%), one client stated that she drank 34 units of alcohol/week, and 8.8% (n=9) of women used alcohol regularly. The mean alcohol use was 9.5units/week with a range of 1-34. Twenty women (19.6%) smoked cigarettes. The mean cigarette use was 9/day with a range of 1-30. Two percent (n=2) women admitted to recreational drug use, and their drug of choice was methamphetamine (“tik”).

## Obstetric history

The median parity was 2 (range 0-4) and the median gravidity was 4 (range 2-7). Fourteen women (13.7%) did not have any surviving children. Of the 102 women interviewed, ninety one (89.2%) were presenting for a second TOP and eleven (10.8%) were presenting for a third TOP.

We asked for information about the gestational age of the current and previous TOPs and this information is shown in Table 3.5. The majority of women 68.6% (n=70) presented for the current TOP in the first trimester (<13 weeks), while 31.4% presented in the second trimester. The median gestational age at presentation for the current TOP was 10 weeks (range: 6-19). Most women (70.6%, n=72), had their first TOP in the first trimester with 29.4% (n=30) having this TOP in the second trimester. Only 11 women had previously had 2 TOPs, and most of them 90.9% (n=10) had the procedure performed in the first trimester, while 1 woman had a TOP in the second trimester. The majority of TOPs were performed using a surgical technique.

**Table 3.5: Gestational age at current and previous TOP**

<b>Gestational age at current TOP (weeks)</b>	<b>n =102</b>	<b>(%)</b>
<13	70	(68.6)
13-19	32	(31.4)
<b>Gestational age at first TOP (weeks)</b>		
<b>n =102 (%)</b>		
<13	72	(70.6)
13-18	30	(29.4)
<b>Gestational age at second TOP (weeks)</b>		
<b>n=11 (%)</b>		
<13	10	(90.9)
13-18	1	(9.1)

**Table 3.6: Primary reasons for current TOP.**

<b>Reason</b>	<b>n (%)</b>
Cannot afford a child now	40 (39.2)
Last child is too young	15 (14.7)
Already has as many children as she wants	13 (12.7)
Does not want any children	6 (5.9)
Partner deserted her	6 (5.9)
Not ready for responsibility	5 (4.9)
Husband or partner does not want child	4 (3.9)
Experienced contraceptive failure	3 (2.9)
Wants to delay having another child	2 (2.0)
Feel should establish career before has child	2 (2.0)
Believes should be married before has a child	2 (2.0)
Having a child would affect schooling	1 (1.0)
Has a child would change life in a way she does not want	1 (1.0)
Has relationship problems with husband or partner	1 (1.0)
Parents do not want her to have a child	1 (1.0)
Does not want to be single mother	0
Cannot identify father; is in casual relationship	0
Is too young to have a child	0
Does not want parents or others to know about pregnancy	0

## Reasons for TOP

Respondents were asked without prompting to state their reasons for TOP and we coded these according to a list we had developed. These are shown in Table 3.6

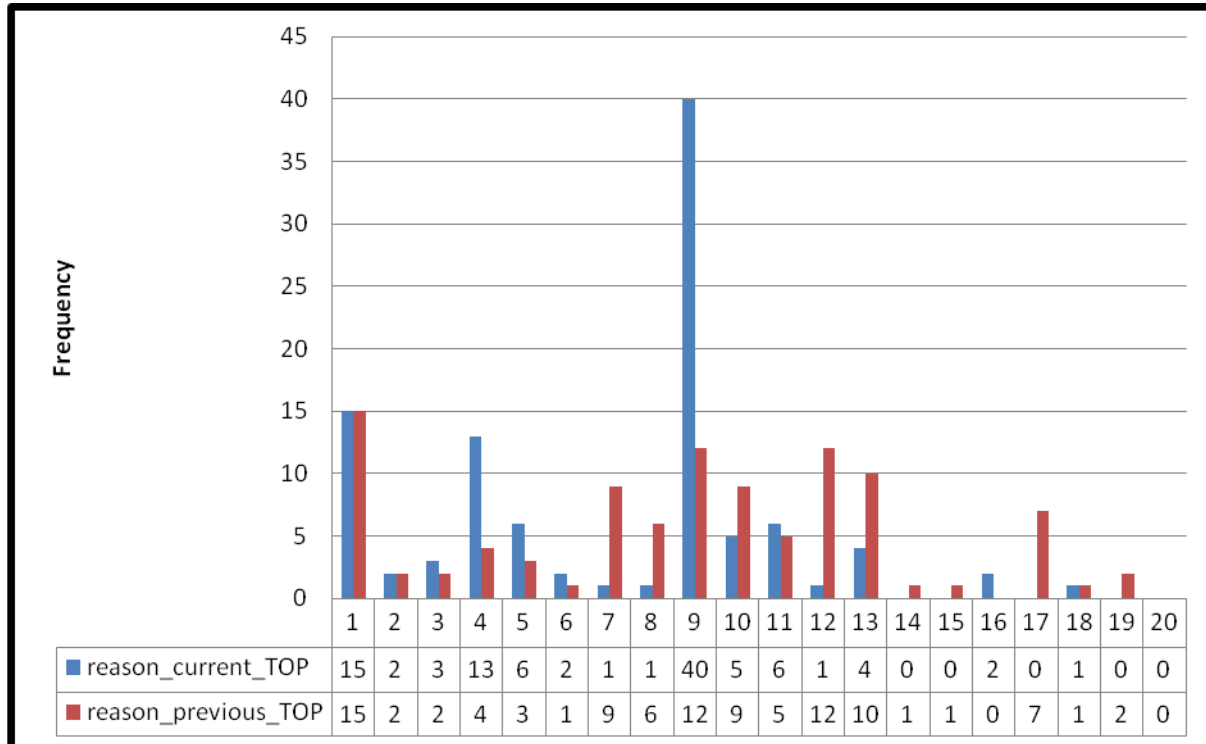
The majority of women cited financial constraints (39.2%, n=40) as the main reason they were having this TOP. This was followed by their last child been too young (14.7%, n=15) and not wanting any more children as she already has as many as she wants (12.7%, n=13). Among the women who indicated financial constraints as the major reason for TOP, 53% were unemployed while 45% were either employed in the formal or informal sector. In the group of women with financial constraints, only 15% were married.

Among the women with financial constraints, the contraceptives used prior to this pregnancy are the following, the pill: 2.5% (n=1), minipill: 2.5% (n=1), withdrawal method: 2.5% (n=1), injectable progestogen: 10% (n=4), no contraception used: 37.5% (n=15) and the male condom: 50% (n=20). Among the women who said their last child was too young used the following contraceptives prior to this pregnancy: no contraception used: 20% (n=3), injectable progestogen: 33.3% (n=5) and the male condom: 40% (n=6). The women who said they already had as many children as they wanted used the following contraceptives prior to this pregnancy: minipill: 7.7% (n=1), injectable progestogen: 15.4% (n=2), no contraception used: 38.5% (n=5) and the male condom: 46.2% (n=6). Some women used more than 1 contraceptive method prior to this pregnancy

Women were asked without prompting to give reasons for their previous TOP. The reasons are illustrated in Table 3.7. The three major reasons the respondents gave were: Last child is too young 14.7% (n=15), cannot afford a child now 11.8% (n=12) and has relationship problems with husband or partner. There was a wide range of other reasons.

The reasons the respondents gave for having the present and previous TOP were slightly different. Among the women having a current TOP, the reasons given were predominantly related to socioeconomic difficulties, whereas reasons women gave for having their previous TOP was much more varied. This is shown in figure 3.1

**Figure 3.1: Bar graph of frequency of reasons of TOP (current and previous TOP)**



key: 1. Last child is too young 2. Wants to delay having another child 3. Experienced contraceptive failure 4. Already has as many children as she wants 5. Does not want any children 6. Feel should establish career before has child 7. Having a child will affect schooling 8. Having a child would change life in a way she does not want 9. Cannot afford a child now 10. Not ready for responsibility 11. Partner deserted her 12. Has relationship problems with husband or partner 13. Husband or partner does not want child 14. Does not want to be single mother 15. Cannot identify father; is in casual relationship 16. Believes should be married before has a child 17. Is too young to have a child 18. Parents do not want her to have a child 19. Does not want parents ( or others ) to know about pregnancy 20. Don't know

**Table 3.7: Reason for first TOP**

<b>Reason</b>	<b>n (%)</b>
Last child is too young	15 (14.7)
Cannot afford a child now	12 (11.8)
Has relationship problems with husband or partner	12 (11.8)
Husband or partner does not want child	10 (9.8)
Having a child will affect schooling	9 (8.8)
Not ready for responsibility	9 (8.8)
Is too young to have a child	7 (6.9)
Having a child would change life in a way she does not want	6 (5.9)
Partner deserted her	5 (4.9)
Already has as many children as she wants	4 (3.9)
Does not want any children	3 (2.9)
Wants to delay having another child	2 (2.0)
Experienced contraceptive failure	2 (2.0)
Does not want parents or others to know about pregnancy	2 (2.0)
Feel should establish career before has child	1 (1.0)
Does not want to be single mother	1 (1.0)
Cannot identify father; is in casual relationship	1 (1.0)
Parents do not want her to have a child	1 (1.0)
Believes should be married before has a child	0

## Experience of Contraceptive Services

Eighty five percent (n=87) of women interviewed had previously accessed family planning services. Participants were asked if they found family planning services to be helpful and approachable. Eighty four percent (n=73) of women indicated that they found family planning services to be helpful and approachable while 14% (n=12) found services not approachable. Women were asked if they were given a choice of family planning which was suitable for them. Eighty one percent (n=70) women indicated that they were given a choice of contraception they felt was suitable for them. Sixteen percent (n=14) of women indicated that they felt that the choice of contraception they received was not suitable for them. This is shown in Table 3.8

**Table 3.8: Contraceptive experience of women who had accessed family planning services (n=87)**

<b>Did you find family planning services helpful and approachable?</b>	<b>n (%)</b>
• Yes	73 (83.9)
• No	12 (13.8)
• Don't know	2 (2.3)
<b>Were you given a choice of family planning which was suitable for you?</b>	<b>n (%)</b>
• Yes	70 (80.5)
• No	14 (16.1)
• Don't know	3 (3.4)
<b>Did you find the hours of the family planning service suitable?</b>	<b>n (%)</b>
• Yes	63 (72.4)
• No	22 (25.3)
• Don't know	2 (2.3)

Participants were asked about the suitability of the hours of the family planning service and 72.4% (n=63) of women who had accessed the services found the hours of service suitable, 25.3% (n=22) found the hours not suitable and 2.3% (n=2) did not know if the hours were suitable or not. In Table 3.9, factors impacting on the use of Family Planning Services is shown.

**Table 3.9: Factors impacting on the use of Family Planning Service.**

Factors	n (%)
Long waiting periods at family planning facility	11(10.8)
Clinics only open for short periods	9 (8.8)
There are no dedicated family planning clinics	2 (2.0)
Clinics are too far from home/work	1 (1.0)

Women were asked what they thought were the best hours for operation of the Family Planning Service. A majority of women (30%, n=31) indicated normal office hours (08:00-16:00) to be acceptable while 15.7% (n=16) of women said 08:00-17:00 would be acceptable and 16.7% (n=17) of women said they did not know what hours would be suitable. One client said a 24hour service would be ideal.

Participants were asked without prompting to give as many contraceptive methods they had ever heard of, ever used and used prior to this current pregnancy. The most commonly known contraceptive was the male condom (98%), followed by the injectable progestogens (97%) and then the combined oral contraceptive pill (90%). The contraceptive method ever used by women interviewed were the injectable progestogens (81%), male condoms (67%) and the combined oral contraceptive pill (35%). Prior to the current pregnancy 47% of women used the male condom, 34% admitted to using no form of contraception and 14% used injectable progestogens. See Table 3.10.

**Table 3.10: Contraceptive knowledge and use.**

Contraceptive method	Known	%	Ever used	%	Used prior to current pregnancy	%
“The pill” (COC)	92	90.2	36	35.3	5	4.9
Mini-pill (POP)	6	5.9	2	2.0	2	2.0
Injectable progestogen	99	97.1	83	81.4	14	13.7
Loop (IUD)	37	36.3	0	0	0	0
Hormone releasing IUD	0	0	0	0	0	0
Cap/diaphragm	2	2.0	0	0	0	0
Male condoms	100	98.0	69	67.4	48	47.1
Female condoms	76	74.5	1	1.0	0	0
Long-term implants	9	8.8	0	0	0	0
The ‘rhythm method’	10	9.8	3	2.9	0	0
The withdrawal method	15	14.7	1	1.0	1	1.0
Abstinence	26	25.5	0	0	0	0
Spermicides	2	2.0	0	0	0	0
Female sterilization	61	59.8	0	0	0	0
Male sterilization	32	31.4	0	0	0	0
“morning-after pill”	56	54.9	6	5.9	1	1.0
None					35	34.3

## Post-TOP care

The contraception recommended by three-quarters of health care providers was the injectable progestogen (74.5%, n=76). Seventy one percent (n=72) of women opted for this method of contraception.

The combined oral contraceptive was recommended to 8.8% (n=9) women and 9.8% (n=10) opted for this. Approximately 12.7% (n=13) of women indicated that no contraception was recommended by the health care provider after their last TOP. See Table 3.11.

**Table 3.11: Contraception recommended by health care professional after previous TOP and contraception chosen by client (n=102).**

Contraception recommended by health care professional after your previous TOP	n (%)
Injectable progestogen	76 (74.5)
The pill	9 (8.8)
“Mini-Pill” (POP)	1 (1.0)
IUD	1 (1.0)
Male condoms	1 (1.0)
Abstinence	1 (1.0)
No advise given	13 (12.7)
Contraception client chose after last TOP	n (%)
Injectable progestogen	72 (70.6)
The pill	10 (9.8)
Male condoms	8 (7.8)
None	7 (6.9)
Female sterilization	2 (2.0)
“Mini-Pill” (POP)	1 (1.0)
IUD	1 (1.0)
The rhythm	1 (1.0)

After their previous TOP, 89.2% (n=91) were informed by the health care provider where to access contraception. Approximately equal numbers of women indicated that they could access contraception at the family planning clinic n=49 or at the health care clinic n=48. Only 4 women indicated that they could access contraception at the chemist. One patient did not know where to obtain contraception. Participants only mentioned one source and did not seem aware of the multiple outlets of contraception provision where they could obtain contraception.

Participants were asked if follow-up with regard to contraceptive advice and social worker review was arranged after their last TOP. Only 16% (n=16) of women had post-TOP care arranged. Overall, 12 women were able to attend follow-up.

They were also asked if they thought contraceptive services could be improved. Fifty three percent (n=54) indicated that contraceptive services could be improved, 30% (n=31) were happy with the services and 17% (n=17) were not sure what to make of the service. The suggestions for improvement are shown in Table 3.12.

**Table 3.12: Factors mentioned that would make contraceptive services acceptable.**

Factors*	n (%)
Long waiting periods at health care facilities should be avoided	16(15.7)
Women need to be educated	13(12.7)
Health care practitioners attitudes should change	11(10.8)
There should be dedicated family planning clinics	10(9.8)
Clinics should be open for longer hours	9(8.8)
More clinics should be built to increase accessibility	8(7.8)
Contraception should be provided in schools	3(2.9)
Staff should offer more contraceptive choice	3(2.9)
Clinics running out of contraception should be avoided	1(1.0)

*\*Some clients gave more than one reason.*

### **Comparison of patients with one previous and two previous TOPs**

There was no significant difference between women with one previous and two previous TOPs with regard to their age, religion, marital status, level of education, employment status, parity and gravidity.

### **Summary of results**

- The majority of women in this study were young, single, had a secondary school education and were unemployed.
- The forms of contraception known to the majority of the participants were the male condom, injectable progestogens and combined oral contraceptives. These were also the most commonly used form of contraception.
- The primary reasons for having the current TOP were: socioeconomic difficulties, last child been too young and already having as many children as she wants.
- The majority of women who had accessed our contraception services found these helpful and approachable.
- Some women said long waiting periods at health care facilities and unsuitable hours were the main barriers to accessing contraception.
- Post-TOP counseling was perceived as inadequate.

## CHAPTER 3:

### Discussion

The incidence of repeat TOPs has been increasing worldwide and more recently among teenagers. This has now become a public health issue. The rate of repeat TOPs varies from 30-38% in northern Europe to 47% in USA.<sup>18</sup> However, many countries do not have reliable statistics for TOP.

In our study, the knowledge of contraception was poor in terms of effective long acting reversible contraception (LARC). The most common forms of contraception the women had ever heard of were the male condom (98%), the injectable progestogen (97%) and “the pill”(90%) in declining order. The knowledge of injectable progestogen was high because all the women were having a repeat TOP and this was the most commonly recommended form of contraception after TOP and women tend to opt for this.

The knowledge of other LARC was more limited. In our study only 36.3% of women had ever heard of the IUD and no woman had ever used the IUD. This is lower than a study carried out in Cape Town, South Africa in 2010 by van Zijl et al.<sup>49</sup> where 41% of women had ever heard of the IUD and only 4% had ever used the IUD. No woman had ever heard of or used either the hormone releasing IUS or the long-term implants. Contraception ever used was mainly the injectable progestogen. Therefore, a woman opting not to use injectable progestogens was limited in her choice of long acting contraception because IUDs and implants were often not offered at family planning clinics.<sup>49</sup>

Due to the high incidence of HIV infection in South Africa, the male condom is actively promoted, but this is however ineffective in preventing unintended pregnancies.<sup>26</sup> Condoms were used by 47% of women presenting for TOP, this is lower than an earlier study carried out in Newcastle, United Kingdom in 2001 by Garg et al.<sup>26</sup> where 57% of women presenting for a repeat TOP had used condoms. In that study 37% of women had used the “pill” as compared to 4.9% in our study. The knowledge of emergency contraception was low among respondents in

our study, with 54.9% having ever heard of it and only 1% ever using it. This is inconsistent with a multi-centre study conducted in South Africa in 2001 by Smit et al.<sup>33</sup> where they showed that, 22.8% of women had ever heard of emergency contraception and only 9% had ever used emergency contraception. The awareness of emergency contraception was significantly lower in the most rural areas and among older, less educated women. Approximately one-third of women admitted to using no form of contraception prior to their current pregnancy. In this study, despite the high level of awareness of contraception and emergency contraception, its use was extremely low.<sup>33</sup>

The reasons why women chose to have TOPs were multifactorial. This involved difficult family situations, poor socioeconomic circumstances and personal reasons. The majority of women had a TOP due to socioeconomic difficulties. This reason was however interwoven with difficult relationships with partners, employment status and ineffective contraceptive use. More than half of the women with financial difficulties were unemployed and only 15% were married. The request for TOP could be attributed to instability in their relationships and therefore a lack of support from their partner and their unemployment status would make raising and caring for another child extremely difficult. This finding is consistent with a study carried out in 2004 in New York, USA by Finer et al.<sup>12</sup>

The issue of birth spacing was another common reason women in this study opted for TOP. These women said that their last child was too young, and they would therefore not be in a position to have the added responsibility of taking care of another child. Some women attributed this to the lack of available family support due to unavailability or unwillingness of family members to continue to care for their children. Another reason given was that the participant has as many children as she wants. These women had on average 3 children and were therefore unwilling to have any more children.

Contraceptive knowledge is a direct consequence of women's experience of contraceptive services. A large proportion, 85% (n=87) of women had accessed contraceptive services at some point and most of the women thought contraceptive services were helpful and approachable and they received contraception which was suitable for them. Surprisingly, only a quarter of women found the hours of the family planning service unsuitable. Only one of the women interviewed suggested family planning clinics needed to be open for 24 hours.

## Post-TOP care

Most of the women left the TOP facility with injectable progestogen having been recommended by the health care provider and there was a high uptake of this. The continuation rate of this, was however poor. A study conducted by Becker et al.<sup>47</sup> demonstrated 8 themes as important to women's view of contraceptive services: service accessibility, information provision, attention to client comfort, providers' personalization of care, service organization, providers' empathy, technical quality of care and providers' respect for women's autonomy. Similar themes were highlighted in our study.<sup>47</sup>

Follow-up care after TOP with regard to contraceptive review and social worker assessment was neglected in most of the women interviewed. Only 12 women out of 16 for whom follow-up care was arranged attended the follow-up session. Approximately a half of the women indicated that contraceptive services needed to be improved. The barriers to post-TOP care can be grouped into client issues, health care provider, contraceptive and facility problems.

The client is a major contributor to poor contraceptive uptake and use. Patient behaviour was associated with contraceptive non-compliance and therefore failure. The primary reasons women gave for having a TOP were subsequently related to inefficient contraceptive use. Women who cited socioeconomic difficulties as reason for TOP, made up the majority of women as already highlighted. Fifty percent of these women used the male condom, 37.5% did not use any contraception and 10% used Injectable progestogen prior to this pregnancy. Women who said their last child was too young, 40% used the male condom, 33.3% used Injectable progestogen and 20% did not use any form of contraception. Women who said they already had as many children as they wanted were not different, 46.2% used the male condom, 38.5% did not use any contraception and 15.4% used injectable progestogen. Women who were less motivated to prevent pregnancy were likely to be either using an incorrect form of contraception or no contraception at all. Lack of partner support and partner disapproval of contraceptive use was also highlighted.

With the health care provider, barriers to patient contraceptive use and post-abortion contraception include attitudes towards clients and poor contraceptive knowledge among health care providers where certain forms of contraceptives were not made available to women. This is consistent with a study carried out in Cape Town in 2006 by Harries et al.<sup>23</sup> where women indicated that negative and judgemental attitudes and in certain instances rude and hostile attitudes by health care providers prevented them from accessing contraceptive services. In another study conducted in Cape Town in 2010 by van Zijl et al.<sup>49</sup> the knowledge of IUDs among health care providers was limited. Among 30 health care providers interviewed, 3%

(n=1) felt they had excellent knowledge of IUDs, 63% (n=19) felt they had a good knowledge. The knowledge of hormone releasing IUD was limited with 50% of providers aware of the IUD and hormone releasing IUS.<sup>49</sup>

The unavailability of different forms of contraception in family planning facilities results in limited patient choice therefore resulting in clients settling for inefficient contraception. Perceived contraceptive side effects also results in inefficient contraceptive use and contraceptive failure. The problems noted with family planning facilities include, inadequate staffing, lack of adequately trained personnel to offer contraceptive counselling and services. The separation of TOP services and family planning services was highlighted as a major problem. Contraception uptake was higher in clients where both services were provided at the same facility. Women who had an IUD inserted immediately after a TOP were shown to have significantly fewer unintended pregnancies and repeat TOPs than women scheduled for insertion at a follow up visit.<sup>27</sup> This was demonstrated in a study carried out in 2007 in San Francisco, USA, where women who received an IUD after TOP had 34.6 TOPs per 1000 woman-years of follow up compared to 91.3 for the control group. In this study, <sup>27</sup> women also indicated that dedicated family planning clinics would ensure contraception uptake. Women who had to attend general clinics where they had to endure long waiting periods to obtain contraceptives ended up abandoning the entire process resulting in poor contraceptive uptake and use.

## **CHAPTER 4:**

### **Conclusion**

This study demonstrated that there was reasonably good knowledge of contraception amongst the clients. However, unplanned pregnancies were mainly due to either the non-use of contraception or the use of inefficient methods of contraception. Also highlighted was the limited use of the highly effective long acting reversible contraception despite the relative knowledge of these forms of user independent contraceptives. More information and education to address the myths associated with the IUD is required.

Emergency contraception awareness should be promoted in contraception counselling sessions.

Post-TOP assessment and contraceptive review is an often neglected part of the TOP process. The RCOG recommends a 2week follow-up appointment after a TOP.<sup>48</sup> This should ideally be implemented to solve the issue of inadequate contraception counselling .

## **REFERENCES**

1. Choice on Termination of Pregnancy Act, Act No. 92 of 1996.
2. Choice on Termination of Pregnancy Amendment Act, 2008.
3. Varkey S, Fonn S. How far are we? Assessing the implementation of abortion services: A review of literature and work in progress. Durban: Health Systems Trust; 2000. [cited 2010 february 21].  
Available from: <http://www.hst.org.za/publications/5>
4. Health Systems Trust. Termination of pregnancy in South Africa. [cited 2010,February21]  
Available from: <http://indicators.hst.org.za/healthstats/47/data>
5. Davis AR, Beasley AD. Abortion in adolescents: epidemiology, confidentiality, and methods. *Curr Opin Obstet Gynecol*. 2009; 21 (5): 390-395.
6. Hapangama D, Nielson JP. Mifepristone for induction of labour. *Cochrane Database Syst Rev*. 2009; issue 3, Art No.: CD002865. DOI: 10.1002/1651858.CD0022865. pub2.
7. Schaff EA, Fielding SL, Eisinger SH, Fuller L. Low-dose mifepristone followed by vaginal misoprostol at 48 hours for abortion up to 63 days. *Contraception*. 2000; 61 (1):41-46.
8. Guttmacher institute. In Brief: Facts on induced abortion in the United States. New York: Guttmacher Institute; 2008. [cited 2010, may 6].  
Available from: [http://www.guttmacher.org/pubs/fb\\_induced\\_abortion.html](http://www.guttmacher.org/pubs/fb_induced_abortion.html)
9. Jones RK, Zolna MRS, Henshaw SK, Finer LB. Abortion in the United States: incidence and access to services, 2005. *Perspect Sex Reprod Health*. 2008; 40 (1): 6-16.
10. Henshaw SK. Unintended pregnancy in the United States. *Fam Plann Perspect*. 1998; 30 (1): 24-46.
11. Guttmacher Institute. State facts about abortion. New York: Guttmacher institute; 2006. [cited 2010, may 6].  
Available from: [http://www.guttmacher.org/pubs/sfaa/new\\_york.html](http://www.guttmacher.org/pubs/sfaa/new_york.html)

12. Finer LB, Frohworth LF, Dauphinee LA, Singh S, Moore AM. Reasons U.S women have abortions: quantitative and qualitative perspectives. *Perspect Sex Reprod Health*. 2005; 37 (3): 110-118.
13. Bartlett LA, Berg CJ, Shulman HB, Zane SB, Green CA, Whitehead S, Atrash HK. Risk factors for legal induced abortion-related mortality in the United States. *Obstet Gynecol*. 2004; 103 (4): 110-118.
14. World Health Organization. The prevention and management of unsafe abortion: Report of a Technical Working Group. Geneva: WHO; 1992.
15. Guttmacher Institute. Facts on abortion and unintended pregnancy in Africa. New York: Guttmacher institute; 2009. [cited 2010, may 6]. Available from: [http://www.guttmacher.org/pubs/IB\\_AWW-Africa.pdf](http://www.guttmacher.org/pubs/IB_AWW-Africa.pdf)
16. Aahman E, Shah I. Unsafe abortion: Global and regional estimates of the incidence of unsafe abortion and associated mortality in 2003, fifth edition. Geneva: World Health Organization; 2007.
17. Singh S. Hospital admissions resulting from unsafe abortion: estimates from 13 developing countries. *Lancet*. 2006; 368 (9550): 1887-92.
18. Heikinheimo O, Gissler M, Suhonen S. Age, parity, history of abortion and contraceptive choices affect the risk of repeat abortion. *Contraception*. 2008; 78 (2): 149-154.
19. Rahman A, Katzive L and Henshaw SK. A global review of laws on induced abortion, 1985-1997. *Int Fam Plann Perspect*. 1998; 24 (2): 56-64.
20. Althaus FA. Work in progress: The expansion of access to abortion services in South Africa following legalization. *Int Fam Plann Perspect*. 2000; 26 (2): 84-92.
21. Medical Research Council, Department of Health of South Africa and Marco International: South Africa Demographic and Health Survey 1998. Pretoria: Department of Health; 2001.
22. Morroni C, Myer L, Tibazarwa K. Knowledge of the abortion legislation among South African women: a cross-sectional study. *Reprod Health*. 2006; 3 (7): 1-5.
23. Harries J, Orner P, Gabriel M, Mitchell E. Delays in seeking an abortion until the second trimester: a qualitative study in South Africa. *Reprod Health*. 2007; 4 (7): 1-8.

24. Alouini S, Uzan M, Meningaud JP, Herve C. Knowledge about contraception in women undergoing repeat voluntary abortions, and means of prevention. *Eur J Obstet Gynecol Reprod Biol.* 2002; 104 (1): 43-48.
25. Palanivelu LM, Oswal A. Contraceptive practices in women with repeat termination of pregnancies. *J Obstet Gynaecol.* 2007; 27 (8): 832-834.
26. Garg M, Singh M, Mansour D. Peri-abortion contraceptive care: Can we reduce the incidence of repeat abortions? *J Fam Plann Reprod Health Care.* 2001; 27(2): 77-80.
27. Goodman S, Hendlish SK, Matthew RF, Foster-Rosales A. Impact of immediate postabortal insertion of intrauterine contraception on repeat abortion. *Contraception.* 2008; 78 (2): 143-148.
28. Reeves MF, Smith KS, Creinin MD. Contraceptive effectiveness of immediate compared with delayed insertion of intrauterine devices after abortion. *Obstet Gynecol.* 2007; 109 (6): 1286-94.
29. St John H, Critchley H and Glasier. Can we identify women at risk of more than one termination of pregnancy? *Contraception.* 2005; 71 (1): 31-34.
30. Prager SW, Steinauer JE, Foster DG, Darney PD, Drey EA. Risk factors for repeat elective abortion. *Am J Obstet Gynecol.* 2007; 197 (6): 575.e1-575.e6.
31. Fisher WA, Singh SS, Shuper PA, Carey M, Otchet F, Maclean-Brine D, et al. Characteristics of women undergoing repeat induced abortion. *CMAJ.* 2005; 172(5): 637-41.
32. Ellertson C, Winikoff B, Armstrong E, Camp S, Senanayake P. Expanding access to emergency contraception in developing countries. *Stud Fam Plann.* 1995; 26 (5): 251-63.
33. Smit J, McFadyen L, Beksinska M, de Pinho H, Morroni C, Mqhayi M, et al. Emergency contraception in South Africa: knowledge, attitudes and use among public sector primary healthcare clients. *Contraception.* 2001; 64 (6): 333-7.
34. World Health Organization. Adolescent health. [cited 2010, june 2]. Available from: [http://www.who.int/topics/adolescent\\_health/en/](http://www.who.int/topics/adolescent_health/en/)
35. Lehohla P. Women's month reminds us of struggles past, and future challenges. 2007 [cited 2010, june 3]. Available from: [http://www.statssa.gov.za/news\\_archive/23August2007-1.asp](http://www.statssa.gov.za/news_archive/23August2007-1.asp)

36. Davis AR, Beasley AD. Abortion in adolescents: Epidemiology, confidentiality and methods. *Curr Opin Obstet Gynecol*. 2009; 21 (5): 390-395.
37. Zabin LS, Clark SD. Why they delay: A study of teenager family planning clinic patients. *Fam Plann Perspect*. 1981; 13 (5): 210-217.
38. Zelnik M, Kantner JF. Sexual activity, contraception use and pregnancy among metropolitan area teenagers. *Fam Plann Perspect*. 1980; 12(5): 230-237.
39. Ferguson D, Boden J, Horwood L. Abortion among young women and subsequent life outcomes. *Perspect Sex Reprod Health*. 2007; 39 (1): 6-12.
40. Finer LB, Frohworth LF, Dauphinee LA, Singh S, Moore AM. Timing of steps and reasons for delays in obtaining abortions in the United States. *Contraception*. 2006; 74 (4): 334-344.
41. Guttmacher Institute. Following decade-long decline, U.S teen pregnancy rate increases as both births and abortions rise. New York: Guttmacher Institute; 2010. [cited 2010, june 29].  
Available from: <http://www.guttmacher.org/media/nr/2010/01/26/index.html>
42. Guttmacher Institute. New initiative overhauls U.S teen pregnancy prevention efforts. New York: Guttmacher Institute; 2010. [cited 2010, june 29].  
Available from: <http://www.guttmacher.org/media/nr/2010/03/22/index.html>
43. United Nations Statistics Division. Demographic Yearbook 2006: Teen birth rates. New York: United Nations Statistics Division; 2008.
44. Parkes A, Wright D, Henderson M, Stephenson J, Strange V. Contraceptive method at first sexual intercourse and subsequent pregnancy risk: findings from a secondary analysis of 16 year old girls from the RIPPLE and SHARE studies. *J Adolesc Health*. 2009; 44(1): 55-63.
45. Rutgers Nisso Groep. Sexual and reproductive health – the Netherlands in international perspective. Utrecht, The Netherlands: Rutgers Nisso Groep; 2009.
46. Department of Health Statistical Bulletin. Abortion statistics, England and Wales: 2007. United Kingdom: Department of Health; 2008. [cited 2010, july 13].  
Available from:  
[http://www.dh.gov.uk/en/publicationsandstatistics/publications/publicationsstatistics/DH\\_085508](http://www.dh.gov.uk/en/publicationsandstatistics/publications/publicationsstatistics/DH_085508).

47. Becker D, Klassen AC, Koenig MA, LaVeist TA, Sonenstein FL, Tsui AO. Women's perspective on family planning service quality: an exploration of differences by race, ethnicity and language. *Perspect Sex Reprod Health*. 2009; 41(3):158-165.
48. Royal College of Obstetricians and Gynaecologists. Evidence-based Clinical Guideline Number 7: The care of women requesting induced abortion. London: RCOG press; 2004.
49. Van Zijl S, Morrioni C, van der Spuy ZM. A survey to assess knowledge and acceptability of the intrauterine device in the Family Planning Services in Cape Town, South Africa. *J Fam Plann Reprod Health Care*. 2010; 36 (2):73-8.

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**Appendix 1**



**UNIVERSITY OF CAPE TOWN**  
IYUNIVESITHI YASEKAPA • UNIVERSITEIT VAN KAAPSTAD

**A STUDY ON KNOWLEDGE OF CONTRACEPTION AND BARRIERS TO  
CONTRACEPTIVE USE IN WOMEN UNDERGOING REPEAT  
TERMINATION OF PREGNANCY**

PATIENT NAME: .....

SUBJECT NUMBER: .....

DATE OF INTERVIEW: .....

PLACE OF INTERVIEW:.....

INTERVIEWED BY: .....

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THE INCLUSION CRITERIA WILL BE THE FOLLOWING:

- Any woman with a previous TOP or TOPs requesting a repeat procedure.
- Women willing to participate in the study.

THE EXCLUSION CRITERIA WILL BE:

- Women below 16 years of age.
- TOP for fetal anomalies.
- TOP following rape.
- Patients who cannot understand the implications of the study.

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# QUESTIONNAIRE

DATE OF INTERVIEW:    D D    M M    Y Y  
                                   

SUBJECT NO:           

1. DATE OF BIRTH:        D D    M M    Y Y  
                                   

2. RELIGION:
- (a) MUSLIM
  - (b) PROTESTANT
  - (c) ROMAN CATHOLIC
  - (d) OTHER CHRISTIAN
  - (e) HINDU
  - (f) JEWISH
  - (g) OTHER
- .....

3. MARITAL STATUS:
- (a) SINGLE (NOT IN A RELATIONSHIP)
  - (b) SINGLE (STABLE RELATIONSHIP & NOT COHABITING)
  - (c) SINGLE & COHABITING
  - (d) MARRIED
  - (e) DIVORCED
  - (f) SEPARATED
  - (g) WIDOWED

4. LEVEL OF EDUCATION:
- (a) NO FORMAL SCHOOLING
  - (b) GRADE 1-7 ( PRIMARY)
  - (c) GRADE 8-12 (SECONDARY)
  - (d) TERTIARY
  - (e) UNKNOWN

5. EMPLOYMENT STATUS:
- (a) UNEMPLOYED
  - (b) EMPLOYMENT (FORMAL)
  - (c) EMPLOYMENT (INFORMAL)

- (d) SELF EMPLOYED
- (e) STUDENT / SCHOLAR

6. MAIN LANGUAGE SPOKEN:
- (a) ENGLISH
  - (b) AFRIKAANS
  - (c) XHOSA
  - (d) FRENCH
  - (e) OTHER (specify) .....

7. LANGUAGE OF INTERVIEW:
- (a) ENGLISH
  - (b) AFRIKAANS
  - (c) XHOSA

8. ALCOHOL INTAKE: ..... UNITS/ WEEK
- 1 unit of alcohol = 1 glass of wine, a nip or 1 shot of spirit, 1 glass of beer (~ 200mls).

9. DO YOU SMOKE? (a) YES (b) NO

10. If YES how many cigarettes a day ?

11. DO YOU USE ANY RECREATIONAL DRUGS? (a) YES (b) NO

12. If YES, WHAT DRUG DO YOU USE? (a) TIK (b) DAGGA (c) OPIATES (d) ECSTASY (e) OTHER (specify)
- ..... (f) N/A

13. CURRENT GESTATIONAL AGE IN WEEKS

14. GRAVIDITY: (please enter number)

15. PARITY:

16. HOW MANY MISCARRIAGE/S HAVE YOU HAD?

17. HOW MANY ECTOPIC PREGNANCIES HAVE YOU HAD?

18. HOW MANY SURVIVING CHILDREN DO YOU HAVE?
19. GESTATIONAL AGE/S AT PREVIOUS TOP/S: (a) TOP 1   wks  
 (b) TOP 2   wks  
 (c) TOP 3   wks  
 (d) TOP 4   wks

20. HOW WERE THE PREVIOUS TOP/S CARRIED OUT:

	(a) medical	(b) surgical	(c) Don't know
TOP 1			
TOP 2			
TOP 3			
TOP 4			

21. WHAT IS THE MAIN REASON WHY YOU ARE HAVING THIS TOP?
- (a) last child is too young
- (b) wants to delay having another child
- (c) experienced contraceptive failure
- (d) already has as many children as she wants
- (e) does not want any children
- (f) feel should establish career before has child
- (g) having a child will affect schooling
- (i) having a child would change life in a way she does not want

- (j) cannot afford a child now
- (k) not ready for responsibility
- (l) partner deserted her
- (m) has relationship problems with husband or partner
- (n) husband or partner does not want child
- (o) does not want to be single mother
- (p) cannot identify father; is in casual relationship
- (q) believes should be married before has a child
- (r) is too young to have a child
- (s) parents do not want her to have a child
- (t) does not want parents ( or others) to know about pregnancy
- (u) medical condition (specify) .....
- (v) don't know
- (w) other (specify) .....

22. ARE THERE ANY OTHER REASONS WHY YOU ARE HAVING THIS TOP? (see Q 21 for list of reasons).  
(maximum of 2 reasons)

1<sup>st</sup> reason:

23. 2<sup>nd</sup> reason:

24. WHAT IS THE MAIN REASON WHY YOU HAD YOUR PREVIOUS TOP?  
( see Q21 for list of reasons)

(a) TOP 1

(b) TOP 2

(c) TOP 3

(d) TOP 4

		Q25	Q26	Q27
		Method of contraception ever heard of	What method of contraception have you ever used	What method of contraception did you use prior to this pregnancy
a	"The pill" (combined pill, containing oestrogen + progesterone)			
b	Mini pill ( progesterone-only pill or POP)			
c	Injectable methods (eg Depo provera)			
d	Loop (IUCD)			
e	Hormone releasing IUD (eg mirena)			
f	Cap/diaphragm (barrier method)			
g	Male condoms (barrier method)			
h	Female condom			
i	Long-term implants (eg norplant)			
j	The 'rhythm' method (natural family planning)			
k	The withdrawal method (coitus interruptus)			
l	abstinence			
m	spermicides			

n	Female sterilization			
o	Male sterilization			
p	"morning-after pill" (post coital pill)			
q	Never used contraception			
r	none			
s	Other (please specify)			

28. HAVE YOU EVER ACCESSED FAMILY PLANNING SERVICES? (a) YES (b) NO

29. IF YES, DID YOU FIND FAMILY PLANNING SERVICES HELPFUL AND APPROACHABLE? (a) YES (b) NO  
(c) DON'T KNOW

30. WERE YOU GIVEN A CHOICE OF FAMILY PLANNING WHICH WAS SUITABLE FOR YOU?  
(a) YES (b) NO (c) DO NOT KNOW (d) NOT APPLICABLE

31. DID YOU FIND THE HOURS OF THE FAMILY PLANNING SERVICE SUITABLE?  
(a) YES (b) NO (c) DO NOT KNOW (d) NOT APPLICABLE

32. If NO, WHAT WERE THE PROBLEMS?

(a) Long waiting periods at family planning facility

(b) There are no dedicated family planning clinics

(c) Clinics only open for short periods

(d) Clinics are too far

33. WHAT DO YOU THINK ARE THE BEST HOURS? .....

34. WHAT CONTRACEPTION WAS RECOMMENDED BY HEALTH CARE PROFESSIONAL AFTER YOUR  
PREVIOUS TOP? (see Q26 for list of contraceptive options)

35. WHAT CONTRACEPTION DID YOU OPT FOR AFTER YOUR LAST TOP?

(see Q26 for list of contraceptive options)

36. WERE YOU TOLD WHERE TO ACCESS CONTRACEPTIVE SERVICES? (a) YES (b) NO (c) DON'T KNOW

37. WHERE CAN YOU GET CONTRACEPTION?

(a) FAMILY PLANNING CLINIC (b) HEALTH CARE CLINIC (c) HOSPITAL (d) CHEMIST (e) GENERAL PRACTITIONER (f) OTHER (specify).....

 / 

38. WAS ANY POST-TOP FOLLOWUP ARRANGED: (a) YES (b) NO (c) DON'T KNOW

39. WERE YOU ABLE TO ATTEND FOLLOWUP? (a) YES (b) NO (c) NOT APPLICABLE

40. DO YOU THINK CONTRACEPTIVE SERVICES CAN BE IMPROVED? (a) YES (b) NO (c) DON'T KNOW

41. If YES, IN WHAT WAY WOULD SERVICES BE ACCEPTABLE?

(a) Health care practitioners attitudes should change

(b) There should be dedicated family planning clinics

(c) Long waiting periods at health care facilities should be avoided

(d) Women need to be educated

(e) Clinics running out of contraception should be avoided

(f) More clinics should be built to increase accessibility

(g) contraception should be provided in schools

(h) longer hours

(i) Staff should offer more contraceptive choice

Thank you for your assistance.

**Appendix 2**



## CONSENT FORM

The purpose of the study has been explained to me by a member of the Reproductive Medicine Unit in the language of my choice.

I understand I shall complete a questionnaire with assistance of a trained interviewer.

It has been explained that the purpose of the study is to gain insight into general knowledge of contraception and identify areas where services can be improved or made more client friendly.

I understand that the result from the survey will be confidential and my name will not be entered into the database.

I understand that this study is entirely voluntary and I can withdraw from the study at any time and non-participation will not affect my care.

I understand that the interview may cause distress since it involves reliving past experience.

I have been given adequate opportunity to ask questions about the study.

PARTICIPANT'S SIGNATURE:

DATE:

.....

PARTICIPANT'S NAME: .....

INVESTIGATOR'S SIGNATURE:

DATE:

.....

INVESTIGATOR'S NAME:

.....

WITNESS SIGNATURE:

DATE:

.....

.....

WITNESS NAME : .....

**FOR FURTHER INFORMATION PLEASE CONTACT:**

1. RESEARCHER: DR KWABENA ESSEL

GROOTE SCHUUR HOSPITAL

021 404 6020

2. HUMAN RESEARCH ETHICS COMMITTEE

GROOTE SCHUUR HOSPITAL

TEL: 021 406 6338

University of Cape Town



**TITLE OF STUDY: KNOWLEDGE OF CONTRACEPTION AND BARRIERS TO CONTRACEPTIVE USE IN WOMEN UNDERGOING REPEAT TERMINATION OF PREGNANCY.**

*INFORMATION SHEET AND CONSENT FORM*

You may be eligible to take part in a research study. This form will give you important information about why this study is being done, what will happen during the study, the risks and possible benefits. Please read it carefully. After you finish, talk with the researcher and ask questions. If you decide that you would like to take part in the study, you will be asked to sign this form and you will be given a copy of the signed form to keep.

*GENERAL INFORMATION ABOUT THE STUDY AND THE RESEARCHERS*

• **Names of the researchers conducting the study**

Dr Kwabena Essel

Department of Obstetrics and Gynaecology,

University of Cape Town.

Prof Zephne M van der Spuy

*PURPOSE OF THIS STUDY*

- **Why is this study being done?**

The reasons for this study are:

- To evaluate the knowledge of contraception in women undergoing repeat termination of pregnancy
- To assess contraceptive use and counselling received after previous TOP.
- To assess problems women face when trying to obtain contraception

<i>INFORMATION ABOUT STUDY PARTICIPANTS</i>
---

- **Why am I being asked to take part in this study?**

- You are being asked to take part in this study because you have had a previous TOP and are therefore in the best position to share your experience and knowledge.

- **How many subjects are expected to enroll in this study?**

- One hundred participants are expected to be enrolled from Groote Schuur, New Somerset, GF Jooste and Mitchell's Plain District hospitals into this study.

- **If I decide not to join this study, what other options do I have?**

- This study is entirely voluntary and your present or future treatment will not be affected if you decide not to participate.

- **How long will I be in this study?**

- This study requires responding to a questionnaire administered by the investigators and will take about 15 minutes.

<i>INFORMATION ABOUT RISKS AND BENEFITS</i>
---

- **What risks will I face in this study?**

- This study involves a questionnaire and does not present a risk. However we will offer further counselling if this raises any distressing concerns with regards to reliving past experience.

- **How can I benefit if I take part in this study? How will others benefit?**

- You may not get any direct benefit from being in this study. We hope the Information learned from this study will assist us in providing better services and support women in your position in the future.

*INFORMATION ABOUT THE COSTS*

- **If I join this study, will it cost me anything?**

- You will not incur any costs by participating in the study.

- **Will I be paid or reimbursed for taking part in this study?**

- You **will not** be paid for being part of this study.

- **Who will profit or benefit from the study results?**

- The investigators do not have any financial interest in this study.

*INFORMATION ABOUT CONFIDENTIALITY*

- **How will my privacy be protected?**

- The questionnaire will be completed in a private room.

- **What information about me may be seen by other people?  
Who are the others that might see it?**

- The only people that would see any information about you are the investigators.

Personal identifiers will not be included in the questionnaires.

- **What happens to the information about me after the study is over or if I leave the study early?**

- The research data will be stored in the Department of Obstetrics and Gynaecology of the University of Cape Town. The only people that will have access to the data will be the investigators. Results of the study will be anonymized.

University of Cape Town



**Health Sciences Faculty**  
**Human Research Ethics Committee**  
**Room E52-24 Grootte Schuur Hospital Old Main Building**  
**Observatory 7925**

Telephone: [021] 406 6626 • Facsimile [021] 406 6411  
e-mail: shiretta.thomas@uct.ac.za

20 September 2010

HREC REF: 445/2010

Dr K Essel  
c/o Prof ZM Van Der Spuy  
Obstetrics and Gynaecology

Dear Dr Essel

**PROJECT TITLE: KNOWLEDGE OF CONTRACEPTION AND BARRIERS TO CONTRACEPTIVE USE IN WOMEN UNDERGOING REPEAT TERMINATION OF PREGNANCY.**

Thank you for submitting your study for review to the Faculty of Health Sciences Human Research Ethics Committee.

It is a pleasure to inform you that the Ethics Committee has **formally approved** the above-mentioned study.

**Approval is granted for one year till the 30<sup>th</sup> September 2011.**

Please submit an annual progress report if the research continues beyond the approval period. Please submit a brief summary of findings if you complete the study within the approval period so that we can close our file.

Please note that the ongoing ethical conduct of the study remains the responsibility of the principal investigator.

**Please quote the REC, REF in all your correspondence.**

Yours sincerely

**PROFESSOR M BLOCKMAN**  
**CHAIRPERSON, HSE HUMAN ETHICS**  
Federal Wide Assurance Number: FWA00001637.

S Thomas

Institutional Review Board (IRB) number: IRB00001938

This serves to confirm that the University of Cape Town Research Ethics Committee complies to the Ethics Standards for Clinical Research with a new drug in patients, based on the Medical Research Council (MRC-SA), Food and Drug Administration (FDA-USA), International Convention on Harmonisation Good Clinical Practice (ICH-GCP) and Declaration of Helsinki guidelines.

The Research Ethics Committee granting this approval is in compliance with the ICH Harmonised Tripartite Guidelines E6, Note for Guidance on Good Clinical Practice (CPMP/ICH/135/95) and FDA Code Federal Regulation Part 50, 56 and 312.

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