

**FERTILITY CHOICES OF SERO-POSITIVE WOMEN IN THE
COMMUNITY OF WELBEDACHT WEST
KWAZULU-NATAL**

Submitted to the College of Humanities
School of Built Environment and Development Studies
University of KwaZulu-Natal, Durban

In

Partial Fulfillment of the Requirements for the

COURSE WORK MASTERS DEGREE IN POPULATION STUDIES

Researcher : Modestar Sinenhlanhla Zuma

Student Number : 205524587

Research Supervisor : Dr. Kerry Vermaak

Date : September 2016

DECLARATION

I, Modestar Sinenhlanhla Zuma, declare that:

1. The research reported in this thesis, except where otherwise indicated, and is my original research.
2. This thesis has not been submitted for any degree or examination at any other university.
3. This thesis does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.
4. This thesis does not contain other persons' writing, unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then:
 - i. Their words have been re-written but the general information attributed to them has been referenced
 - ii. Where their exact words have been used, then their writing has been placed in italics and inside quotation marks, and referenced.
5. This thesis does not contain text, graphics or tables copied and pasted from the Internet, unless specifically acknowledged, and the source being detailed in the thesis and in the References sections.

Student signature

Date

DEDICATION

This work is dedicated to my late mother, Nomboniso Sixishe (Zulu), whom I started this journey with and finally completed it without her. You will forever be missed.

ACKNOWLEDGEMENT

I wish to sincerely give thanks to the following people who contributed significantly to the success of this study:

- a) To all the respondents who participated in this study, for their time and contributions.
- b) To Dr. Kerry Vermaak, my Research Supervisor, for her guidance, patience and support throughout this project.
- c) To my beloved friends Thandazile Gumede and Londiwe Vezi have been paragons of support and encouragement during this journey.
- d) To my baby boy Luhleuthando Hleloluhle you were born at a very crucial time of life when I was busy with my thesis and when I looked at you I was motivated to complete this research. It was through you that I had to learn how to multitask and realise the hidden potential in me.
- e) And lastly to the Almighty through him all things are possible.

ABSTRACT

Recent literature on childbearing and HIV has found a plethora of evidence suggesting that many women living with HIV continue to desire children, become pregnant and give birth after knowing their HIV status. This desire to have children has been associated with the availability of HAART and PMTC interventions and its improvement in the quality of life for sero-positive women.

Although HIV- prevalence and fertility rates are amongst the highest in sub-Saharan Africa, little is known about how HIV infection affects the fertility preferences of women in KwaZulu-Natal. The purpose of this qualitative study was to explore fertility choices of sero-positive women in the community of Welbedacht West south of Durban in KwaZulu- Natal. Availability sampling was used to select twelve women of child bearing age who were part of a local support group. The sample included nine participants who were receiving antiretroviral therapy. Data was collected through in-depth interviews lasting about 45 minutes to an hour in isiZulu. These interviews were tape recorded translated into English after the interview process was completed; they were later transcribed to aid analysis. Data was analyzed using thematic analysis.

The findings of this study revealed that sero-positive women desired having children and an HIV positive status was not a factor but their intentions were the primary determinants of behaviour as the theoretical framework used indicates. A risk it all approach in order to fulfil desired intentions proved to be a key theme. All participants had children pre-diagnosis and only four had children post diagnosis. A decision to conceive for some participants is influenced by pressure as a result of their marital, social and situational context.

ABBREVIATIONS

1. AIDS - Acquired Immune Deficiency Syndrome
2. ARV - Anti-retroviral
3. HAART - Highly Active Antiretroviral Therapy
4. HIV - Human Immunodeficiency Virus
5. MTCT - Mother- to- Child Transmission of HIV
6. PMTCT - Prevention of Mother-to-Child Transmission
7. PPCT - Prevention of Parent to Child Transmission
8. STI - Sexually Transmitted Infections
9. Sero- Positive - Defined as giving a positive result in a test of blood serum, e.g. the presence of a virus
10. Sero- Negative - Defined as giving a negative result in a test of blood serum, e.g. the absence of a virus
11. Sero-discordant - couples were one partner is HIV positive and the other is negative

TABLE OF CONTENTS

Cover page	i
Dedication	ii
Acknowledgments	iii
Declaration	iv
Abstract	v
Abbreviations	vi
Table of Content	vii
List of Tables	viii

CHAPTER ONE: INTRODUCTION

1.1	Background to the Problem	1
1.2	Problem to be Investigated	2
1.3	Purpose of for the Study	4
1.4	Objectives of the Study	5
1.5	Research Questions	5
1.6	Significance of the Study	5
1.7	Theoretical Framework	6
1.8	Conclusion	7

CHAPTER TWO: LITERATURE REVIEW

2.	Introduction	9
2.1	Context of women	9
2.2	Fertility	10
2.3	HIV and AIDS and Fertility	14
2.4	Antiretroviral therapy and Fertility	17
2.5	Education, Fertility and HIV	18
2.6	Employment status of women, Fertility and HIV	20
2.7	Desire to have children	21
2.8	Socio-economic and cultural factors	24
2.9	Marriage, Fertility and HIV	28
2.10	Cohabitation, Fertility and HIV	30
2.11	Conclusion	31

CHAPTER THREE: RESEARCH METHODOLOGY

3.	Introduction	32
3.1	Fertility and HIV and AIDS in KZN	33
3.2	Profile of Welbedacht West	34
3.3	Picture of Map of Welbedacht West	34
3.4	Research Design	35
3.5	Sample	35
3.6	Research Participants	36
3.7	Data Collection Procedure	36
3.8	Reliability and Validity	37
3.9	Confidentiality	38
3.10	Informed Consent	38
3.11	Data Analysis	38
3.12	Ethical Consideration	40
3.13	Limitation of the study	41
3.14	Conclusion	41

CHAPTER FOUR: DATA ANALYSIS & PRESENTATION OF RESULTS

4.	Introduction	42
4.1	Extracting significant statements	42
4.2	Characteristics of the study population	43
4.3	Factors influencing fertility choices	45
4.3.1	Age	45
4.3.2	Children as a value system	46
4.3.3	Marriage, cohabitation and single status	48
4.3.4	Partner and societal expectations	49

4.3.5	Health factors	52
4.3.6	ARV's and fertility	53
4.3.7	Education, employment status and economic factors	54
4.3.8	Conclusion	56

CHAPTER FIVE: DISCUSSIONS OF MAJOR RESULTS, LIMITATIONS AND RECOMMENDATIONS OF THE STUDY

5.	Introduction	57
5.1	Sero-positive status and partner desires	57
5.2	Child bearing and sero- positive status	58
5.3	Socio-economic influences	59
5.4	Aspirations versus intent	60
5.5	Risky behaviour as an act of love	61
5.6	ARV's and fertility choices	62
5.7	Conclusion	63
5.8	Limitations of the Study	63
5.9	Recommendation and Conclusion	65

Bibliography	68
Appendix: interview guide	78
Appendix: Informed Consent Form	80
Confirmation to conduct research letter	81

CHAPTER ONE

INTRODUCTION

1.1 THE BACKGROUND OF THE STUDY

A sero-positive status is defined as giving a positive result in a test of blood serum, e.g: the presence of a virus and in this case being HIV positive. Sero- negative is the absence of a virus in a test of blood serum resulting in a HIV negative status. HIV almost inevitably causes AIDS, which has well understood modes of transmission which include blood to blood contact, mother-to-child-transmission (MTCT) and sexual contact. HIV and AIDS gave birth to a global epidemic that was far greater than the initial estimates suggested (van Rensburg, 2004). In 2014, the global HIV and AIDS epidemic took more than 7 million lives and an estimated 5 million acquired the virus (UNAIDS, 2014). Studies have indicated that South Africa has one of the highest rates of HIV and AIDS prevalence in the world. Within South Africa, Kwa-Zulu Natal has one of the highest rates of HIV infection.

A study by the Department of Health (2007) was conducted based on its sample of 33,488 women attending 1,415 antenatal clinics across all nine provinces in South Africa. The study estimated that 28% of pregnant women were living with HIV in 2007. The provinces that recorded the highest HIV rates were KwaZulu-Natal, Mpumalanga and Free State. A survey conducted in 2002 in KwaZulu-Natal recorded the highest HIV prevalence among antenatal clinic attendees with a shocking 36, 5% of the patients were HIV positive (Department of Health,

2002). The study further found that women aged 25- 29 years were mostly affected with 34.5% of them pregnant, and women aged 30- 34 years had an estimate of 29.1% who were HIV positive.

Women are primary care-givers in many South African household and an HIV positive status plays a pivotal role in the woman's social being. A woman's identity and status is intrinsically connected to childbearing and the ability to reproduce. Larson & Richardson (1994) indicates that pregnancy is viewed as a time of positive recognition for many women.

The impact of a sero-positive status has devastating effects on the fertility choice of women of Africa (Kasiram et al, 2006), as it has influenced women to choose, not to bear children. Cooper et al (2009), proposed that women living with HIV may also face increased risks during childbirth. Studies in developed and developing countries suggest that many HIV-infected women continue to desire children despite knowledge of their positive HIV status. A sero-positive status and women's reproductive decisions are essential in understanding other issues such as sexual behaviour and sexual decision making. There has been minimal attention given to reproductive choice and intentions of women, (Harries et al, 2007).

1.2 PROBLEM TO BE INVESTIGATED

Global efforts to combat the wide spread of HIV and AIDS are insufficient, the South African population is highly effected as the population growth rate continues to plunge significantly.

Currently, South Africa has one of the lowest fertility rates in the continent, (Amoateng & Heaton, 2007). The decline in fertility is a result of many contributing factors. For the past 3 decades, South African fertility has been at a decline and relatively the lowest among Sub-Saharan Africa countries. The pace of decline has accelerated since the early 1980's with an average estimate of 4 to 5 children per woman between 1980 and 1995, (United Nations, 1995). In 1999, the fertility rate of South Africa was at 2.9 children per women (SADHS, 1999). However, the current hypothesis is that the introduction of HAART increase fertility rates as more women desire having children, (Homsy et al, 2008).

Being sero-positive is overwhelming on its own and the socio-economic pressures of having children are an added factor that either influences positively or negatively fertility choices. Fertility intentions and desires are not limited to an individual but extended to a macro level. While sero-positive women may be concerned about infecting their babies during and after child birth, they face burdens of stigmatization and discrimination from partners and family if they choose not to bear. Preston-Whyte (1993) indicates that any society's behaviour is significantly governed by cultural systems which are comprised of intrinsic value systems. In the South African context, children are valued, especially son's, as they carry the family name and children in general establish a sense of completion of one's meaning of life. Sewpaul (1999) supports this statement by stating that in African communities, child bearing is seen as an essential part of being a woman. Choosing not to have children can result in stress and depression of sero-positive or sero-discordant relationships.

Health professionals are at the primary level of information dissemination. However, sero-positive women are frowned upon for desiring having children and health professionals fail to provide alternatives for those who have intentions of having children. Research has found that health professionals discourage sero-positive women to engage in reproduction, there seems to be emphasis on the complications of women's health rather than their desires. In 2014, in KwaZulu-Natal, doctors and nurses were investigated as claims from dozen HIV positive women surfaced, claiming to have been sterilized against their will in public hospitals, (Makhaye, 2014).

Though the risk of exposure to infection through MTCT has been reduced drastically over the years, fears of other medical health problems that can emerge during or after pregnancy are the causes to women not recommended to choose having a child or children (Sheri et al, 2004).

1.3 PURPOSE OF THE STUDY

HIV has a strong influence in the decision making process on having children. Being sero-positive has its own afflictions the pressures of having children or not having children has momentous impact. The purpose of the study is to investigate how a sero-positive status of women has affected their fertility choices bearing in mind the socio-economic pressures of having children.

1.4 OBJECTIVES OF THE STUDY

- To explore how a sero-positive status has impacted on fertility choices.
- To explore other factors that influence the fertility choices of sero-positive women.
- To explore how antiretroviral therapy may influence the fertility of sero-positive women.

1.5 RESEARCH QUESTIONS

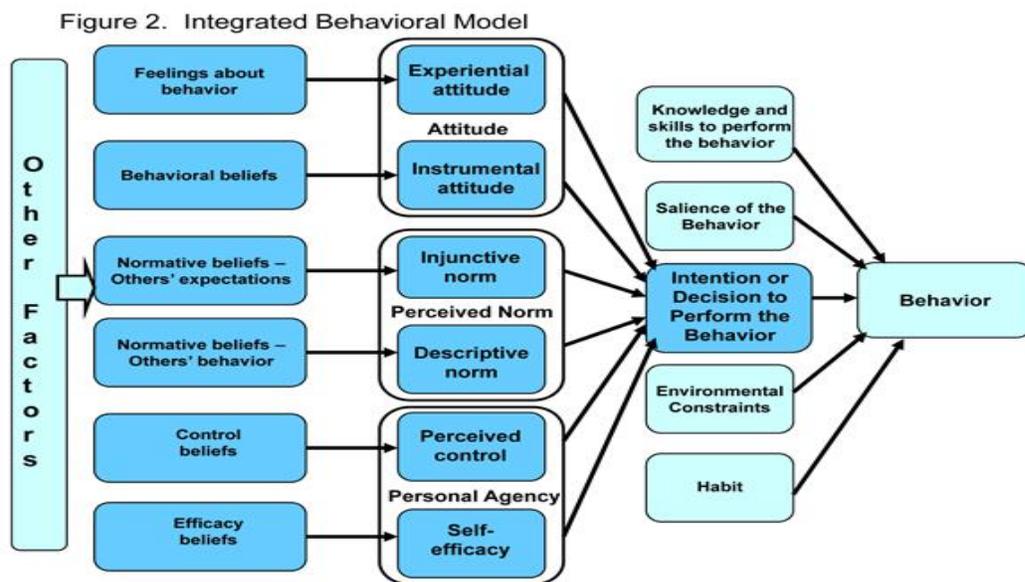
- How has a sero-positive status affected women's fertility choice?
- What factors have influenced fertility choices?
- How HAART may influence the sero-positives women fertility choice?

1.6 SIGNIFICANCE OF THE STUDY

This study will add to the body of knowledge on sero-positive women choices and fertility. Since recent studies on sero-positive women and fertility tend to focus on the medical aspect, this study will assist in the understanding of social factors that affect positive women. Therefore, the outcome of this study will raise responsiveness and identify gaps in service delivery which may be included in educational programmes. It may form a basis for further research for example; correlations studies on factors influencing fertility choices among sero-positive women and sero-negative women. Sero-positive women and women at risk of child bearing age may be exposed to counseling interventions that are sensitive to factors that influence sero-positive women's pregnancy decisions.

1.7 THEORETICAL FRAMEWORK

This study used the integrated behaviour model as a theoretical framework for understanding the study group fertility choices. The Integrated behaviour model proposes that intentions (as the function of attitudes, subjective norms, and perceived self-efficacy) are primary determinants of behaviour, Daniel and Oladipo (2006). There are four additional components that directly affect behaviour, namely: environmental constraints, habit, knowledge and salience of the behavior. The framework is intended to identify factors that influence fertility choices of sero-positive women, and therefore to guide design and implementation of a holistic sero-positive and reproductive health services that support fertility choices.



Source: Glanz et al (2015)

The fertility choices of sero-positive women in the study show a direct association with the integrated behavioral models theoretical framework. The framework embodies that behavior is carried out through intentions. If an individual does not intent to have more children irrespective

of their sero-positive status, no behaviour of such will be carried out. A study conducted by Chen et al (2006), on a sample of 2864 HIV positive adults; men and women showed that generally fertility desires of HIV infected individuals does not always agree with their partners.

Behavioural intentions are determined by one's attitude, perceived norms and personal agency. A choice to engage in reproduction is influenced by a number of factors which include but are not limited to the following; having a stable partner or married, financial security, family support and etc. An individual needs knowledge and skills to carry out the behaviour. Furthermore, the behaviour should be important to the person and at the forefront of their thoughts. There should be limited or no environmental constraints that make the behavioural performance difficult. An HIV positive status alone cannot be a determining factor to hinder or promote fertility choices.

1.8 CONCLUSION

Contracting the HIV and AIDS virus resulting in a sero-positive status has detrimental consequences not just the individual concerned but a spectrum of factors including but not limited to; coping with a sero-positive status, lack of information on living with the virus, day to day expectations and limitations, lack of support by family and health-care providers, fertility desires, choices and expectation and family expectations and influences. Globally women are reported to being the most infected and affected by HIV and AIDS, and this influences fertility choices. Child bearing is viewed as time of positive recognition; children provide meaning to life and complete the ideology of family. There is a lot of debate about the fertility of sero-positive women because of their sero-positive status and the chances of infecting their foetus or children.

The idea of sero-positive women bearing children creates the belief that they are burdening the state and family members.

Health-care providers are the key in responding to sero-positive women's fertility intentions, they have a pivotal role in providing the right information without biasness, educating sero-positive women on their desires, expectations and limitations and supporting choice made.

The fertility choices of sero-positive women and behaviour are altruistically connected. The use of the integrated behaviour model was fitting as it proposes that intentions are primary determinates of behaviour. This framework embodies that behavior is carried out through intentions. Sero-positive women's fertility choices are directed by their intentions irrespective of health status. The basis of this study is to address these issues.

CHAPTER TWO

LITERATURE REVIEW

2. INTRODUCTION

The rate or level of fertility is known to be influenced by direct and indirect determinants or factors. The former refers to socio-economic and cultural factors and the latter refers to proximate determinants as referred to by John Bongaarts framework, (Bongaart,1978). This chapter will be focused on the factors that influence fertility choices, the context of women in South African settings and outline the impact of HIV and AIDS in women,

2.1 THE CONTEXT OF WOMEN

According to Cousins (1996), the experiences of South African women are rooted in race, class and gender struggles. However, HIV and AIDS are not constrained by these factors. Throughout history women have a low social status; they are vulnerable to oppression and exploitation at home and within society. The domination of men over women has always been regarded as a norm; this subordination is evident even in relationships, sexual negotiations and child bearing decisions. Women's fertility is closely determined by family, partners and societal expectations, (Myer, Morroni & Rebe, 2007).

A cross sectional study investigated fertility intentions of 459 women and men living with HIV in Cape Town, the study found that, there were pivotal gender differences in the determinants of

future childbearing intentions, (Cooper et al, 2009). Men tend to overpower and set their desires and intentions as primary goals which their sero-positive partner's must uphold. Women have a social and cultural obligation of fulfilling the family life; a study conducted by Varga (1997) in KwaZulu-Natal noted that women admitted that childbearing was a significant element of family life. Producing children gives meaning to romantic relationships, as the ideology of family entails having children. A study conducted by Preston- Whyte and Zondi (1993) highlighted the importance of fertility in African communities as women are faced with a challenge to reproduce. The general belief is that having children provides significance to life especially to married women. Cooper (et al, 2007) indicated that motherhood was an important components of married women's identity and important for women's social status.

2.2 FERTILITY

Fertility is the natural capability of giving life, (Larson & Richardson, 1994). A sero-positive status amongst the female population has significant impact on fertility.

Women play a pivotal role in reproduction as they are carriers of the unborn child and are inevitably the caregivers of the child. Fertility rates for HIV-infected women when related to uninfected women are lower, this could be the result that sero-positive women are abstaining from sexual intercourse, using contraceptive methods or having abortions to avoid giving birth to infected children who would have a shorter life span or may end up being orphaned, (Hoffman et al, 2008). A study conducted by Cooper et al (2009) in Cape Town amongst HIV positive women revealed that children signify hope and give a reason for living; children bring

“normality” to their misfortune. Cooper et al (2009: 35) added that one of the participant’s on the study indicated that,

“I have this burning desire of wanting to have that experience of becoming pregnant and having my own children and bringing them up.”

There are strong feelings for biological parenthood combined with a desire to experience parenthood and pleasure of wanting to leave behind something that reminds everyone that one existed. According to Heys (2009) in a study conducted in Uganda, he concluded that children signified hope and provided meaning to the sero-positive women in his study. Heys (2009) further indicated that living with HIV strengthened men and women’s desires for children, as the image of self was not complete without children.

Fertility of a sero- positive woman often carries serious consequences. The UNAIDS (2000) estimated that without treatment to prevent HIV transmission about a third of HIV-infected mothers pass the virus to their child. The introduction of Antiretroviral Therapy (ART) in pregnancy prevents mother to child transmission MTCT has resulted in dramatic reductions in HIV related morbidity and mortality of children born to sero-positive mothers. In addition there are improvements in the quality of life of others identified as requiring long term ART, (Kanniappan et al, 2007).

Myer (2007) thought that improvements in life expectancy and quality of life for sero-positive women coupled with reduced vertical transmission were likely to result in sero-positive women

to considering a child. A qualitative study of sero-positive women of reproductive age (18- 52) in Ontario was conducted, the participants' were recruited from 38 sites and encouraged to complete a 189-items self-administered survey titled, "The HIV Pregnancy Planning Questionnaire", this questionnaire was designed to assess fertility intentions, desires and actions of sero-positive women. The study found that the proportion of women of reproductive age living in Ontario intending and desiring pregnancy was high (Myer, 2007).

Studies have indicated that persons living with HIV, even when they are on ART, have difficulties in child bearing. "Despite the increased emphasis on antiretroviral therapy and other health care services for HIV-infected individuals in sub-Saharan Africa, issues of fertility and childbearing have received relatively little attention," (Kaida et al, 2011: 33). Further, research indicates that pregnancy does not appear to accelerate HIV progression in the mother, even among women not receiving antiretroviral therapy, (McIntyre, 1999). The ideology of conceiving an infected child and the quality of life that child will have are some of the major contributors to women not wanting to participate in fertility, (Craft et al, 2007).

The research study conducted by the Department of Health found that sero-positive women have a greater chance of poor pregnancy outcome than sero-negative women, and that this was the rationale- for the efforts to decrease the risk of (MTCT) through ART, (Department of Health, 2000). However, women who are on ART therapy are more likely to have difficulty conceiving compared to those who are not on ART, (Kaida et al, 2011). However a study conducted by Nkwo (2013) in Sub-Saharan Africa with 4 531 women found that 589 pregnancies occurred and among these women 345 pregnancies were reported from women on ART and 244 from women

not on ART. Nkwo (2013), assumed that the reason for such results is due to ART having restored the health of sero-positive women which in turn resulted in a desire to have a child.

Ndlovu (2009) conducted a qualitative study in Zimbabwe on how HAART impact the views and choices of HIV-positive couples on childbearing. In-depth interviews were conducted with sero-positive and sero-discordant couples. HAART had a profound impact on child bearing as sero-positive couples who intended on pursuing child bearing had the opportunity to do so. However, the study also found that some participants were not convinced about the efficacy of HAART in preventing vertical transmission which is one of the primary modes of HIV infection.

Women's fertility has been closely determined by family, husbands and societal expectations. Many women, especially in developing countries, have life choices that have been constrained by lack of education or employment opportunities and child bearing is an expected behaviour for women to gain recognition and appraisal. Even economically active women have a desire to give life and have children at some stage of their lives. However, these intensions are challenged by discovering one's HIV positive status, (Cooper et al, 2007). A study conducted by Nebie at al (2001), in Burkina Faso on women's sexual and reproductive life after being informed of their HIV positive status found, that the shock of learning one's status and the societal pressures result in many sero-positive women fearing childbearing. "Fears of partner and infant infection and having a previously infected baby were important factors deterring some individuals from considering having children", Nebie at al (2001).

As the HIV and AIDS epidemic continues to ravage the population, women face the burden of dealing with reproductive issues alone. Though kinship systems exist in South Africa and extended family networks are an age old social safety net that have long proved its resilience even through major social changes. However, kinship relations are now unraveling under the strain of AIDS and fear of complicated pregnancies due to their positive status (Sowell & Misener, 1997). Even though family ties are vulnerable and unstable, the existence of support systems for women can have a positive influence on sero-positive women considering child bearing.

2.3 HIV and AIDS AND FERTILITY

HIV almost inevitably causes AIDS, which has well understood modes of transmission which include blood to blood contact, mother-to-child-transmission and sexual contact. HIV/AIDS gave birth to a global epidemic that was far greater than the initial estimates suggested (van Rensburg, 2004).

Sub Saharan Africa has the fastest expanding epidemic and it is at the epicenter of the HIV and AIDS pandemic with approximately 40 million people worldwide currently infected and 60% of those with the virus are South African (UNAIDS, 2005). There are vital factors which include individual desires and concerns, partner and societal expectations, provider attitudes and medical interventions (such as PMTCT and HAART), which makes fertility choices of sero-positive women complex. Many research studies have indicated that women are at a greater risk of infection than men in South Africa and other countries. According to Bury (1994) HIV infection is dependent on the infection rate of one partner and the susceptibility of the other partner.

Biologically women are vulnerable to HIV infection because the female genital tract has a greater exposure surface area, (Bury, 1994). Younger women might be even more biologically vulnerable to infection because they have less mature genital tract tissue and are more likely to be victims of coercive or forced sex, (Department of Health, 1999).

The AIDS epidemic has had a unique impact on women, which has been exacerbated by their role within society and their biological vulnerability to infection, (Family Health International, 2001). As a result of HIV and AIDS sero-positive women are prone to face or contract opportunistic infections and other symptoms. Bury (1994) states that HIV positive women are prone to vaginal thrush and other gynecological infections. In addition, they are likely to develop abnormal pap smears and possibly cervical cancer. These biomedical reasons are the crux for which sero-positive women choose not to reproduce.

Measures to help reduce the spread and re-infection in South Africa have been directed towards informative campaigns such as the ABC (abstain, be faithful to one partner and condomise). There is a lack of adherence to condom use and that is evident in the accelerated number of births occurring, unprotected sexual intercourse exposes people to contracting the virus, (Susser, 2009).

According to Feldman et al (2003), the male latex condoms are a popular protection measure from pregnancy and infection. In comparison the male condom is widely used than the female condom. Undoubtedly by creating and promoting the male condom, men are given the domination over sexual activity as they have the power to either insert it or engage in

unprotected sex. Subordination of women is increased and their ability to partake in safe sex is reduced by accessibility to the means to do. Female condoms are not marketed and promoted equally. Female condom use has remained low throughout its emergence and their accessibility, uncomfortable use, and costing are key drivers to its deteriorating use (PATH et al., 2005).

Health services in South Africa have been focused towards providing prophylaxis against and care for opportunistic infections and the deliverance of ART, (Perinatal HIV Guidelines, 2009). The South African government efforts of curbing this epidemic through campaigns and awareness programs have been directed towards; abstinence programs such as not engaging in sex, engaging in unprotected sexual activity which could result in re-infection and perinatal HIV infection, which was the prominent theory that discouraged infected people from having children. According to Myer et al (2007) women's intentions to engage in child bearing indicate that they are of reproductive and almost inevitably productive age group. AIDS is a critical issue for development in South Africa because of the scale of HIV infection and the numbers of deaths that will occur in the main productive and reproductive age group, 15-49 years old, (Harries et al, 2007).

The theoretical framework illustrated that women's behaviour to engage in reproduction is governed by intentions. It is this fundamental aspect that women choices are key in understanding fertility desires.

2.4 ANTI-RETRO VIRAL THERAPY AND FERTILITY

The introduction of ART to sero-positive women is generally associated with higher fertility desires and intentions; this may be the result of improved quality of life and health. A study conducted in Uganda exploring the trends and incidences of pregnancy of sero-positive women ranging from age 18 to 49 years that were on ART; found that patterns of fertility increased after the introduction of ART, (Homsy et al, 2008). Desire for more children was among the key factors associated with fertility especially where CD4 cell counts were higher and there was a good immunological response to therapy (Fredrick et al, 2011). Several studies have found that women on ARVs have up to 80 per cent greater probability of becoming pregnant compared to those women who are not on HIV medication; this is because; the drugs boost fertility rates which declined after HIV and AIDS infection, (Homsy et al, 2008). A case study of 190 participants and 12 key informants was conducted in Uganda; to assess the effects of enhanced accessibility to ARV's. The study concluded that there was a negative view that ARV's would have detrimental impacts, as it would increase risky sexual behaviour and HIV transmission, Atuyambe et al (2008). On the contrary, Bunnell (2006) study conducted also in Uganda found that six months after initiating ART, risky sexual behavior reduced by 70% in partners.

A case study conducted to assess prevalence and incidence of pregnancy with 712 sero-positive women of reproductive age (15–45) pre-ART and 244 sero-positive women of reproductive age initiating ART in Uganda, revealed higher fertility ratios among pre-ART women in comparison to the latter, (Frederick et al, 2011). However, fertility is not impaired during early HIV infection but declines with disease progression, and the reduction is greatest with onset of AIDS (Ross et al: 2004). A higher viral load with decreased CD4 cell count are been recorded as contributing

factors to fertility decline. The role of HAART on fertility remains elusive. Though conflict in many studies stem from the fact that there seems to be evidence that indicate that sero-positive women, especially those on HAART appear to be less fertile especially since antiretroviral medication may have direct toxicity on gametes and embryos (Massad et al, 2004). However, whether this hypothesis can also be attributed to opportunistic infections is yet to be proven.

2.5 EDUCATION, FERTILITY AND HIV

The mother's education has been found to be a significant factor in the reduction of fertility in many countries (Freedman, 1987; Singh and Casterline, 1985). Education and literacy are pivotal in explaining reproductive behaviour. Cochrane (1979), found that women's fertility in less developed countries tend to rise first with education then decline drastically once a certain level of education is attained. The argument is that education is directly linked to improved health and high hygiene standards which translates to lower chances of abortions, lower rates of infertility, the reduction or abandonment of traditional constraints upon sexual behaviour the reduction of the breastfeeding period which are known to raise fertility.

As the level of education increases, women postpone marriage in order to plan their careers and this impact on fertility trends. Generally, educated women desire fewer children. Similarly, Oladapo (2005) found that respondents who had the least education had higher levels of child desire than their female counter parts of the same health status but having acquired higher education. Generally, educated people would have spent most of their time studying and having busy careers and lifestyles.

In addition, educated women have a higher prevalence of using contraceptive methods which causes fertility to decline. According to the SADHS (1998), fertility is highest amongst those with no education followed by those with primary education then those with secondary education. Expectedly, it is argued that fertility is at its lowest with those at tertiary education. Higher education levels may also increase a woman's awareness and knowledge of family planning and contraception.

Furthermore, there is lack of data with regards to studies on an HIV positive status and the desires to continue studying. However, a study conducted at UKZN campus, a total of 1 317 people participated at UKZN comprising 1 593 students, 116 academic staff and 129 administrative/service staff. The overall findings indicated that more female students (2,8%) than male students (1,8%) were HIV positive (HESA, 2008). These finding can be interpreted that being HIV positive is not a barrier to desiring to accomplish one's dreams. However the study does not indicate if the HIV positive students were aware of their sero-positive status prior to enrolling in the academic institution.

2.6 EMPLOYMENT STATUS OF WOMEN, FERTILITY AND HIV

Literature indicates that working women experience lower fertility rates than their counterparts who are not working. More educated mothers generally have higher earning potential. Chimere-Dan (1996), for example identified a significant indirect association between fertility and level of living standard. The analysis revealed according to the living standard that fertility rates were higher amongst poor populations and lower in comparison with their counterparts. A study by

Swartz (2003) on the relationship between fertility and poverty among South African women discovered that fertility rates were higher among the poor population and lower with the more established women.

A study conducted by Blakie and Balekang (2015) with 148 females and 23 males on desires, intentions and decisions of HIV positive women in attaining motherhood in Botswana, the study found that working women were likely to have child bearing desires. These results affirm that job security is a crucial determinate for fertility desires irrespective of sero-positive status. Job security provides a safety net for sero-positive mother to be able to provide for their infants and manage all costs associated with raising a child.

2.7 DESIRE TO HAVE CHILDREN

Though one may assume that sero-positive women would not want to bear children because of the fear of infecting their offspring, being rejected by their partner and family, discriminated against by society or having lost a child as a result of previously infecting it and other medical reasons. However, strong desires to experience motherhood result in sero-positive women opting for pregnancy. Sauer (2002: 63) succinctly indicated that a woman's reproductive drive is extremely strong as previously women have been identified to have taken risks in order to fulfill their desires of having a child beyond reasonable measures. These measures include participating in risky behaviour such as having unprotected sex with a partner of unknown HIV status.

A study conducted by Suryavashne et al, (2008) with sero-positive women of India revealed that women who are aware of their positive status engage in risky behaviour and continue child

bearing, this is due to different factors like, desire for children, lack of health care systems, male desire for sons and family wanting another child in the family. These results indicate that HIV as a factor does not necessarily discourage sero-positive women from wanting to experience parenthood.

Research studies have indicated that sero-positive women who have a partner, who have no children and are at their peak of their reproductive years desire to have children, (Cooper et al, 2007). According to Kanniappan (2008: 18) stated that “there is limited understanding of the reproductive healthcare needs and the impact of infection on the fertility desires of women living with HIV/AIDS”.

A study by Chen et al (2001) on fertility desires and intentions of HIV positive men and women found that in 1421 HIV infected men and women 28 -29% desired to have children irrespective of their status. Some participants indicated that pregnancy and childbearing were a way of regaining womanhood and sexuality, and that raising children was a way of giving meaning to life.

The desire to have sons and pass on the family name has many HIV positive men and women interested in having children of their own. Several studies at the United States reveal that many HIV-infected women actively seek and continue pregnancies despite potential risks of infection of their unborn children (Sunderland et al, 1992).

A study about the reproductive decision making made in the midst of HIV infection in Zimbabwe, found that the reasons for having children included that the child would assist parents in old age, continuing the name of the clan, providing joy in the home, proving ones fertility, strengthening relationships with the in-laws, securing a bond with their partner and to provide companionship for the parents or other relatives Grieser et al, (2001). Predominantly in African contexts, a union between couples was not complete without offspring's, generally; children are regarded as a blessing from God, (Sauer, 2002).

A study conducted in Kenya indicated that not all sero-positive woman desire to have children, (Reynolds and Wilcher, 2006). Grieser et al, (2001) asserted that the reason for sero-positive men and women not having children were because of the fear and emotional pain of losing their child to death, the expenses of taking care of a child(ren), the fear that their child(ren) will be fostered resulting in their children to be burdens once the parents have deceased.

Hoosen & Collins (2004) found that the reason why a majority of sero-positive women choose to reproduce is an act of love to their partner and respect for their family. Women have a tendency to neglect their own needs and focus on pleasing others and this is one of the contributing factors in the accelerating rate of the HI virus. Murray (1998) indicated that once women are diagnosed with HIV/AIDS even though they would be counselled to refrain from engaging in unsafe sex if women are subordinate they continue engaging in unsafe sex without informing their partner

about their status because of the fear of rejection, which increases their risk of exposure to pregnancy.

Sero-positive women who desire to have children but are afraid of infecting their partners can use other reproductive techniques such as artificial insemination, self-insemination and timed intercourse. According to Thornton et al (2004) the use of artificial insemination decreases horizontal transmission in remarkable degrees. However, these methods are not feasible to women utilizing public health clinics because of the cost factor. An alternative to having children is caring for children of their extended family and adoption.

Undoubtedly the desire by sero-positive women to have children suggests that pregnancy planning has to be a pivotal component of HIV medicine. By understanding sero-positive women intentions and desires, this paves the foundation to develop programs and strategies to plan safer pregnancies that protect the health of the children, women and partner's (Palella, 2006).

2.8 SOCIO-ECONOMIC AND CULTURAL NORMS

According to Goosen et al (1996: 21) stated that “culture gives meaning to our lives and it determines who has power and status in society”. Culture is made up of our beliefs, traditions, historical inheritance and morals, i.e: culture is socially constructed. Traditionally, women were regarded as being at the bottom of the hierarchy which meant they had no power to make

decisions for themselves. Even as the times have changed women continue to be socially recognized as care givers and providers in the family irrespective of their economic status. Some studies have indicated that women who are financially dependent on their spouse are subordinate to their partner's choices even pertaining to fertility. Doyal & Anderson (2005) suggested that cultural values placed on women's fertility assign an important social status to women who bear children.

Factors such as infecting their partner and infant or previously having an infected child were dominant factors that propelled them not to choose childbearing. On the contrary the study further found that social and cultural norms and the desire to experience parenthood encouraged childbearing, (Myers et al, 2007).

However there is a perceived community disapproval associated with HIV and fertility, women are regarded as ill even if their C.D 4count is within normal rangers. In addition, people believe that the child will be infected irrespective of the introduction of ART (Maane, 2009).

Maane (2009) autobiography on being openly positive expressed these sentiments,

They were disappointed in me but I loved the idea of having something of my own, my unborn baby.

The stigma associated with HIV and AIDS has resulted in socio-cultural challenges for both infected and affected people especially women. Once a woman reaches child bearing age she is socially inclined in many parts of the world to prove her fertility. Sewpaul (1999) supports this

statement by stating that in African communities, child bearing is seen as an essential part of being a woman. Sewpaul (1999) further stressed that not having children can result in stress or and depression in sero-positive or sero-discordant relationships. Cultures can limit the individual in that, humans seek what they value, and they act in ways that are consistent with their values and perceptions of reality, (Berger, McBreen & Rifkin,1996).

Married sero-positive couples face greater challenges with the in-laws to bear children and they are not ready to disclose their status yet. Grieser et al (2001) suggested that reproductive decision-making is strongly influenced by cultural norms, which include the value of children in a particular society. If a woman fails to reproduce she is regarded as sterile and not a true women. Societal pressures result in sero-positive women bearing unwanted children in order not to be discriminated against.

An HIV positive status and positive pregnancy result, has a significant and devastating impact on the women as this could result in pregnancy termination. The decision to terminate could be influenced by the many psychosocial factors that interplay in their lives, such as not having the right support system to care for the child, financial instability and lack of information. Lack of information has been the major determinant of women choosing to have children or not. McIntyre (1999) proposed that HIV positive pregnant women are rejected by friends, family and their partners, he further stated that pregnant sero-positive women are treated differently from other pregnant women by health professionals. HIV positive person's may not feel that they have

a right to having children due to their association with health care providers, “health care provider values and attitudes may substantially impact on the effectiveness of non-prescriptive guidelines, particularly where social norms and stereotypes regarding childbearing are powerful, and where providers are subjected to dual loyalty pressures, with potentially adverse impacts on rights of service users,” (London et al, 2008:21).

Harrison et al (2007: 115) indicated that “health care providers play a crucial role in determining access to reproductive health services and their influence is likely to be heightened in delivering services to HIV-infected women”. Pregnancy when having an HIV positive status is regarded as a major health risk by many medical practitioners. Discrimination against sero-positive pregnant women has resulted in coercion to terminate pregnancy. Thus the fertility choices of sero-positive women are under societal scrutiny, their choices are discouraged by health professionals and their desires ignored, as they are not recommended or motivated to reproduce due to medical reasons.

The rights of sero-positive women receive little attention. Based on a study of user experiences and perceptions of reproductive and HIV and AIDS services, London et al (2008) illustrate that reproductive health policy should integrate a rights perspective into the way public health services engage with HIV-positive persons and their reproductive choices. A qualitative study focusing on the attitudes of health care policy makers and providers towards reproductive decision-making among HIV-infected individuals was conducted in Cape Town; the study found that there is a clear need for more explicit policies recognizing the reproductive rights and choices of HIV-infected individuals (Harries et al, 2007).

Preston- Whyte (1993: 20) indicates that “society’s behaviour is significantly governed by cultural systems which are comprised of intrinsic value systems, acceptance of polygamy and reproduction”. ART provided an opportunity for sero-positive women to have a choice to pursue child bearing. Socio- cultural factors and desire for children are extremely influential determinants of choosing child bearing. However male domination, fear of causing harm to one’s health and the health of the fetus, HIV and the unavailability of health care systems perpetuate not pursuing fertility or child bearing.

The study notes that there is a need to make available complete and unbiased information on ART, HAART, mother-to-child transmission risk (MTCT) and pregnancy to sero-positive person’s which will assist them in making informed decisions.

2.9 MARRIAGE, FERTILITY AND HIV

Marriage is regarded as the onset of a women’s exposure to childbearing and also the length and pace of reproductive activity, (Palamuleni et al., 2007). Analysing South Africa 1996 Census, Chimere-Dan (1999) discover difference in fertility according to marital status of women. Early marriage may lead to higher fertility especially when contraceptive methods are absent. The Alan Guttmacher Institute (1995) indicated that marriage at later ages provide women with a chance to prolong their education and delay first child births and this would result in them having smaller families.

Marriage at later ages offer women on average a shorter exposure to the chance of becoming pregnant and thus lower fertility in the society (Palamuleni et al, 2007). However, in South Africa marriage is not a prerequisite for child bearing. An analysis of the 1996 census by Udjo (2000) found that the Total Fertility Rate differences between married and non-married women was about 27% especially with the African population group. Pre-marital child bearing in South Africa was viewed as an embarrassment. However, it is now a socially acceptable event. Garenne et al (2000) study using data from Demographic Surveillance System (DSS) revealed that age specific fertility rates show that pre-marital childbearing was at its highest especially with teenagers and exceeds those of marital fertility.

The impact of HIV on decisions about childbearing is particularly important for married women. Birthrates among HIV-positive women have been estimated to be 25–40 percent lower than those of uninfected women (Lewis et al, 2004). A small but growing body of research has assessed the impact of HIV and fertility desires with varying results. Individuals residing in high HIV-prevalence areas tend to believe that those living with HIV should limit childbearing to protect their own and their children's health (Baylies, 2000). Some respondents also report feeling constrained to have fewer children by the responsibilities of caring for AIDS orphans (Rutenberg, Biddlecom, and Kaona 2000). Researchers have also found, however, that some individuals have not changed their childbearing plans in response to the epidemic (Baylies 2000). Married women and couples are at even a greater strain to reproduce in order to fulfil the concept of family. A study conducted on the emotional experiences of sero-positive married women

wanting to bear children, revealed that in the rampant of HIV, married women had strong desires to reproduce irrespective of their sero-positive status, (Nkambule, 2012).

Seropositive individuals may thus want to have children to satisfy their own need for normalcy.

Families also attach important social value to married kin having children and marriage without children was perceived to taint the family reputation (Cooper et al., 2007). Hence married women and those anticipating marriage felt they would encounter and need to conform to family expectations to produce children.

2.10 COHABITATION AND FERTILITY AND HIV

Cohabitation is whereby a couple sharing romantic relations reside together without formally registering their relationship as marriage. Many studies have confirmed that in South Africa fertility does not rely on marriage. Non-marital factors like cohabitation play a significant role in fertility trends. Udjo (2001) study that examined factors affecting non-marital fertility against marital fertility TFR and the results indicated that non-marital fertility occurs largely among cohabiting unions.

Cohabitation in Sub Saharan Africa is viewed as a temporary phase before marriage (Manting, 1994; Carmichael, 1995; and Smock, 2000). Couples have the opportunity to get to test their compatibility or to get to know each-other before committing. Prinz (1995) proposed that cohabiting is a transitional stage that can either be terminated or transformed into legal marriage.

Meekers (1991) highlighted that in Sub Saharan African societies postpone a formal marriage until they can prove their prospective wives' fertility. Cohabitation provides that platform and can be "considered a trail marriage during which pregnancy becomes a means of testing the relationship", if the trial is experienced and the outcome is positive, they marry; if not, they separate (Meekers, 1991: 2). Cohabitation in South Africa is no longer a trail for marriage. Couples desiring to live together, cohabit. Cohabitation in the era of HIV has the same features as marriage; it provides a sense of stability and strengthens the relationship. Decision-making on fertility desires are done as a union.

2.11 CONCLUSION

The ability to bear children is a significant period for any women. However, the context of women is not integral to the ability to bear children even though those are some of the various social roles women are expected to perform. Previously, marriage was the key proximate determinates of fertility. However, prior research is insufficient to determine the relationship between marriage patterns and fertility among South African women, as marriage is no-longer the pre-requisite to childbearing. Nevertheless, marriage still has significance in determining fertility trends. Cohabitation, high levels of education, delay of marriage, working and etc., all in the context of HIV and AIDS have a significant role in examining fertility choices. The methodology used to examine the fertility choices of sero-positive women is discussed in the following chapter.

CHAPTER THREE

RESEARCH METHODOLOGY

3. INTRODUCTION

This chapter will present on the research methodology employed in the study and provide a brief description of Welbedacht West. The study draws on qualitative data from semi-structured in-depth interviews. In total, 12 interviews were conducted among sero-positive women of child bearing age. The chapter will start by providing a brief demographic profile of the province where the study was conducted. It will further examine the setting of the study and then outline the sampling strategy, the data collection, and the analysis. Finally it will discuss the limitations of the study.

3.1 FERILITY AND HIV and AIDS IN KWAZULU-NATAL

KwaZulu- Natal is estimated to have 9.4 million residents and of that two million reside mostly in rural areas (Chazan, 2008). The province is characterized by high poverty rates, high levels of unemployment and inequalities in the distribution of income between various population groups (Statistics South Africa, 2001). KwaZulu-Natal has the highest prevalence rate of HIV and AIDS in South Africa and women being the most affected. It is estimated that an approximate of 16% of the population in the province is living with HIV and AIDS and only an estimated 43% of those in need of antiretroviral are in treatment (Statistics South Africa, 2001: 2).

There has been a lot of debate about fertility of HIV positive women because of their sero-positive status and the probabilities of infecting their unborn and living children, the possibilities of women dying and leaving behind children who will burden to living relatives and the health-care role were key in the researcher choosing this topic. Being HIV positive is overwhelming on its own and women's needs and desires should not only be highlighted but addressed.

3.2 PROFILE OF WELBEDACHT WEST

Welbedacht West is situated at the south of Durban near Chatsworth. The area is dominated by both Black and Indian racial groups. The area comprise of a assortment of people from different areas as it was built to provide accommodation for people residing in shacks and people whose homes have been destroyed as a result of natural disasters.

The Impilwenhle Site is the only available resource in the community. The site is made of containers which hosts the following functions, it operate as a site clinic on Tuesdays, hosts the Impilwenhle Support Group to hold their meetings, operate as a soup kitchen especially for orphans and vulnerable children affected and infected by HIV and AIDS and or, poverty as well as site offices for social workers when they call for visits. The Ward councilor's office is also based on the premises.

3.3

PICTURE OF MAP OF WELBEDACHT WEST

Source: Map Data (2016).

3.4

RESEARCH DESIGN

Using a qualitative research design methodology, in-depth interviews were conducted with twelve sero-positive women. Cohen et al (2000: 34) argues that the qualitative design is particularly useful when “the aim is to understand the world of human experience by gaining a better understanding of the experiences of the participants of the study, as well as the subject matter”. This will assist in promoting more information and help to understand about the subjective experiences of each sero-positive woman and evaluate how their experiences are similar and how they differ. Qualitative data collection provides the interviewer with an opportunity to exhibit empathy especially when addressing sensitive issues.

3.5

SAMPLE

Purposive sampling was used to recruit twelve sero-positive women between the ages of 24 and 45 years. There were no women younger who wanted to participate in the study. Patton (2002) indicates that purposive sampling is a technique widely used in qualitative research for the identification and selection of information-rich cases for the most effective use of limited

resources. The women were all part of the Impilwenhle Support group situated in Welbedacht West. Identifying and selecting participants or groups of individuals those are knowledgeable about or experienced with a phenomenon of interest is imperative in purposive sampling technique (Cresswell and Plano Clark 2011).

Bernard (2002) noted that in addition to knowledge and experience, the importance of availability and willingness to participate, and the ability to communicate experiences and opinions is fundamental to the selection of participants. The two pivotal variables taken into consideration when sampling the target group were, were the women of child bearing age and were they sero-positive. The researcher worked with the Impilwenhle Support Group previously. Permission was obtained from the Impilwenhle management team to conduct interviews and they were instrumental in allowing the researcher to gain access to the respondents. Although the researcher had worked with most of the participants' a re-introduction was necessary to brief the members about the purpose of the study, expectations and their role.

3.6 RESEARCH PARTICIPANTS

All of the participants were female of child bearing age and are sero-positive. The residents of Welbedacht comprise of English and isiZulu speaking people. However, all of the participants were Zulu speaking; hence, the interviews were conducted in isiZulu and were translated and transcribed. Majority of the participants were also working or volunteering at the Impilwenhle Support Group site.

3.7 **DATA COLLECTION PROCEDURE**

Twelve semi-structured in-depth interviews were conducted with all participants; this type of data collection technique promotes dialogue between the member and the researcher guided by a specific topic given by researcher; which is useful in understanding and evaluating the facts, opinions and perceptions of the participants. Swartz, de la Rey and Duncan, (2004) defines semi-structured interviews as when the researcher ensures that certain areas of questioning are covered but there is no fixed sequence or format of questions.

One-to-one interviews are flexible and provide interviewees with the opportunity to express all they want about the issue under investigation, (Cohen and Manion, 1994).

Patton (1987) further elaborated that probing is a useful tool in obtaining a deeper response to questions as well as increasing the richness of data collected. These interviews were administered at the Impilwenhle Support Group office.

3.8 **RELIABILITY AND VALIDITY**

The instrument validity refers to the fact that whether an instrument measures accurately what it is intended to measure, given the context in which it is applied (Brink, 2006: 159). Reliability of the research instrument refers to the degree to which the instrument can be depended upon to yield consistent results, if it is used repeatedly over time on the same persons, or if used by two researchers (Brink, 2006: 164).

The validity of the data gathered during the interviews was ensured by additional information gathered in discussion with other members of the support group who refused to provide consent but were willing to give input on the subject matter. Further information was gathered from the internet and other publications to provide a holistic view of the subject matter. To ensure the reliability of the study, the interviews were only conducted by the principal investigator. While recording the interview notes were taken by the researcher for key points and this assisted in ensuring reliability of the data collected.

3.9 CONFIDENTIALITY

The participants' identity will not be divulged. Their real names were replaced by acronyms in order to heighten anonymity. This was communicated to the participants'. They were informed that when the data is published their names will not be mentioned.

3.10 INFORMED CONSENT

Informed consent was obtained (please refer – Appendix 1). The risks and benefits were explained. Permission to record the participants formed part of the informed consent; they were further informed of their rights to refuse participation. Additional consent was sort from the participants to record the interviews.

3.11 DATA ANALYSIS

As the study is qualitative, Babbie (2008) described qualitative analysis as the nonnumeric examination and interpretation of observation, for the purpose of discovering underlying

meanings and patterns of relationships. The tool utilized during the study was thematic analysis. Swartz, de la Rey and Duncan (2004: 28-29) have indicated that thematic analysis is the most commonly used method of data analysis, it is where audio-taped transcriptions are first broken down into units of meaning. The researcher then uses a technique to place the units of meaning into categories and in this way themes are systematically identified. Themes may be determined before the analysis begins. However, other themes may also emerge from data being analyzed taking the form of assumptions, recurring statements and attributes that people make. Thematic analysis is theory driven and it provided me with an opportunity to test my own assumptions and ideas. Hayes (2000) pointed out that thematic qualitative analysis involves the researcher meticulously searching through data in order to identify themes and the process involved in thematic qualitative analysis starts with the preparation of data, in a way that it allows the researcher to return to the themes repeatedly.

In terms of this study, transcripts were used as the results and elicit themes from them. As a first step the data was read for content to establish if the researcher was getting what the data intended to collect. In some cases the questions were not framed appropriately and this aided the chance to rephrase questions in further interviews so that outcomes could be achieved.

Emergent themes were also identified in this stage and they were noted. The data was re-read to establish the quality of information provided and determining if responses were plausible with sufficient contextual detail. Furthermore, data is read so that patterns may be identified and this helps to determine pivotal themes and patterns are examined and relationships or contradictions are identified. The second guideline involved coding to identify the emerging themes. Babbie

(2008) indicated that this step is the key in social research analysis. Terms from social science literature represent more abstract concepts and they can be used and understood by wider audiences.

The third guideline suggests that data should be displayed to distinguish distinctions of the topic. This implies taking what is relevant to the themes and capture variations of each theme and separating information accordingly. Data reduction is the fourth guideline which implies that this is a process of distilling information to make visible the most essential concepts and relationships which happens once all the data has been read, coded and displayed. Finally, the last guideline was interpretation of data which assist in the establishment of whether themes responded to the original study questions and secondary findings. Furthermore description of social phenomenon, and patterns were presented.

3.12 ETHICAL CONSIDERATION

This study took into account all ethical issues pertaining to research involving human participation. De Vos (2000: 63) stated that, “ethics is a set of moral principles that are suggested by an individual or group, are subsequently widely accepted, and offer rules and behavioral expectations about the most correct conduct towards experimental subjects”. The women in this research were properly informed of the purpose of the research study and the researcher was honest about the amount of time needed from the participants.

Babbie (2001) indicated that anyone involved in the research study needs to be aware of the general agreement about what is proper and improper in scientific research. Participants have a

right to voluntarily participate in this research study. Furthermore, they have the right to withdraw from the study at any time and can refuse to provide any information.

The participants were briefed about the research study and its objectives to ensure that they are familiar with the study. The respondents were informed that their participation and contributions will remain confidential. According to Sieber (1982: 67), “confidentiality is a continuation of privacy, which refers to agreements between persons that limits other’s access to private information”. To further ensure confidentiality and anonymity, I used codes instead of using participants’ real names. Furthermore, participants’ were requested permission to record the interview and they were assured that the information provided would remain confidential.

3.13 LIMITATION OF THE STUDY

The first limitation is related to the research sample. The degree to which the results of this study can be generalized depends on the representativeness of the sample. The participants’ are not a reflection of the entire population because only twelve sero-positive participants were interviewed. The women interviewed already have children, it would have strengthened the argument and assessed participant choices and behaviour if none had children. Furthermore, the researcher has worked with the participants before; this could influence participants’ responses because of the fear of being judged. As a result of the study being purely qualitative and utilizing in-depth interviews and dealing with sensitive emotional issues, the researcher had to counsel and refer participants to other service providers.

3.14 **CONCLUSION**

In conclusion this chapter has provided detailed overview of the research design and methods. In addition the collection and analysis of data, ethical considerations and the reliability and validity of the study have been indicated. It is thereby in the next chapter a presentation of the result will be given.

CHAPTER FOUR

RESEARCH FINDINGS

4.1 INTRODUCTION

This chapter presents the analysis of the findings from the qualitative study conducted in the Welbedacht West area south of Durban near Chatsworth. The population group is a pivotal determinant of fertility in KwaZulu- Natal. However, differences in socio-economic status make the effect of the population group far less, as they are more structural than cultural. The presentation of the results will be according to the aim of the study, namely, to investigate how a sero-positive status of women has affected their fertility choices bearing in mind the socio-economic pressures of having children. In-depth interviews were used to collect data. All participants were asked the same questions; the researcher then posed follow up questions to elicit further information.

4.1.2 EXTRACTING SIGNIFICANT STATEMENTS

The researcher started by reading and re-reading each transcript which expressed the participant's experiences of the phenomenon. The researcher extracted the information from the transcripts and collated it into factors or variables identified as causes that positively or negatively influence fertility choices.

4.1.3 CHARACTERISTICS OF THE STUDY POPULATION

TABLE 1: SAMPLE DETAILS OF PARTICIPANTS

No	Participants	Age	Marital Status	Level of Study	Employment Status	Yr. of 1 st Diagnosis	On ARV's	No. of living children	No. of desired children
01	Bongiwe	30	Single	Left school in Grade 10	Employed	2006	Yes	3	5
02	Jabu	34	Single	Grade 10	Employed	2007	No	1	1 more
03	Ntombi	43	Married	Grade 12	Employed	2005	Yes	1	3
04	Zinhle	32	Cohabiting	Grade 11	Volunteer no income	2003	Yes	3	4
05	Sanele	24	Single	Grade 09	Unemployed	2009	No	1	2
06	Zama	45	Widow	Grade 11	Self Employed	2010	Yes	1	4
07	Londiwe	34	Widow	Grade 11	Employed	2014	No	5	7
08	Mbali	28	Cohabiting	Grade 11	Employed		Yes	1	2
09	Sbongile	31	Single	Grade 11	Employed	2010	Yes	1	3

10	Lihle	35	Single	Grade 11	Unemployed	2008	Yes	2	5
11	Silindile	27	Single	Grade 10	Volunteer	2008	No	3	4
12	Makhosi	33	Single	Grade 10	Volunteer	2009	Yes	2	3

*Pseudonyms have been provided in order to protect the identity of all the participants.

The table above illustrates the participants' details and their information provided for the research study. The pages to follow discuss the evidence provided for better understanding.

4.2 FACTORS INFLUENCING FERTILITY CHOICES

4.2.1 AGE

Erickson (1950) stated in his human development theory that as individuals reach a certain age they want to generate and extend love to other things which in most cases is a child. This need to have children was expressed in the interviews conducted. All the participants' had a strong desire of having a child at some point of their lives irrespective of their health, psycho-social and economic statuses. However, as the theoretical framework illustrate that desires or aspirations of having children do not necessarily mean that the participant intended to have a child. The participants indicated that choosing to have children is an integral part of fulfilling the image of self-irrespective of a sero-positive status. In this study one woman who is regarded as being at the last stages of her reproductive age still has aspirations of bearing children even though risks were greater because of her age.

“I love having a baby, especially since I only had one child, a son” (Jabu#RP2)

Age is an important factor to consider when having children. As the table illustrates all the women were of reproductive age, ranging from the youngest which is 24 years to 45 years. It is imperative to note that women who were aware or diagnosed positive at their earlier ages, continued to pursue child-bearing knowing their diagnosis. The comparison of self to others of the same age group who had had children was also a contributing factor to engage in child bearing as reflected below.

“I wanted a child; I didn’t care about my status I just wanted to have a child of my own because women of my age had had children” (Slindile#RP11)

“I had my last born who is ten months old while I was HIV positive, because I wanted a daughter” (Bongiwe#RP01)

At the age of diagnosis of their positive status (Bongiwe#RP01) was 22 years of age, (Zinhle#RP04) was 24 years and (Slindile#RP11) was 21 years and (Sanele#RP05) was 19 years of age. This result can be an indication that women of younger age groups are prone to taking more risks to satisfy their desires and attain the image of self. The image of self is completed by having children irrespective of a positive diagnosis. This is further justified by Cooper (2007) findings that women of younger age groups had a higher chance of engaging in risky behaviour in order to attain self-fulfillment.

4.2.2 CHILDREN AS A VALUE TO LIFE

Women attached strong desires to have children even though they were sero-positive. Having children brought them a sense of joy and accomplishment. The right to have children was also expressed as an integral part of attaching meaning and value to their lives.

“Even though I am single and HIV positive, I still had a burning desire to have a child. All of my sisters and relatives already had children so I wanted one of my own. When i had my first born, I was very happy. He brought so much joy in my life, he changed my life” (Lihle#RP10).

*“Children change you. I never knew such love existed until, I had them”
(Makhosi#RP12)*

This study found that none of the participants’ had children who were HIV positive. In addition, none had had a child who had died of HIV AIDS related illnesses. Eight of the participants’ did not have another child after their positive diagnosis. However, they all stated that this was not equated with their sero-positive status.

“I won’t lie and say that it’s because of my HIV positive status. No, it is not that. It’s just that I never had more children and I don’t know why. Maybe I was only meant to have only one child.” (Nombi#RP03)

*“I don’t know why I haven’t had children as I am not on any contraceptive method, but when I engage in intercourse I bleed and this problem had persisted over the years prior to my positive diagnosis. I don’t know if this is the reason”
(Jabu#RP02)*

“I didn’t want to have more children, I already have five. I won’t be able to manage anymore” (Londiwe#RP07)

The research found that there was a strong sense of confusion and anxiety by the participants’, as they were skeptical in having more children. In addition to fears of infecting the baby and partners, there were other factor such as financial constraints and fear of health related problems. This fear was vastly minimized were women were either married or cohabiting.

4.2.3 MARRIAGE, COHABITATION & SINGLE STATUS

Only one of the participants was married at the time of the study; and three were cohabiting and the rest were single and living with their children. The role of marriage in desired fertility was significant. One respondent who was not married indicated that the fact that she was not married was the reason why she has not pursued having more children. Her sero-positive status had little significance to her choices.

“I never had more children because; in this day and age people don’t get married. I wanted to have more children if I was married, but if I was not married the one child is enough” (Jabu#RP02).

Since cohabitation is viewed as a trail run before marriage, cohabiting also increases the desire of wanting more children. It is pivotal to note that the four women who had children post-knowing their sero-positive status were cohabiting. Furthermore, the one respondent who had a child after her positive diagnosis who is now residing alone, was at the time cohabiting with her partner during the time of pregnancy.

“I had my children while I was residing with my partner, we are no longer living together but we are still romantically involved.....” (Zinhle#RP04)

Although many participants were officially single, this did not mean that they did not have romantic relationships or that they were not engaging in sexual relations.

*“I can always call upon a friend if I needed to have sex, they are always willing”
(Sbongile#RP09)*

The study found that having a support system such as a supportive family structure, friends, and a partner and significant others had a pivotal role in positively influencing women to choose to have children.

*“I am in a stable relationship; my partner is making arrangements to marry me.”
(RP#05)*

The study found that discussions with partners about fertility choices or intentions after a sero-positive diagnosis were prevalent to couples where one partner did not have children or where couples had intentions of marrying.

*“At the time we started dating we didn’t talk about children, However, as time went on we discussed in terms of having a child as my partner did not have any”
(RP#01)*

“My partner is making arrangements to marry me and he doesn’t have a child. We have discussed it that our economic circumstances are not a factor but his desires” (Sanele#RP05)

4.2.4 PARTNER AND SOCIETAL EXPECTATIONS

This study found that, women who had partners were willing to allow their partners desires to supersede their own, in order to fulfill and acquire a sense of family and belonging and engaged in risky behavior.

“My partner wants a child since he does not have one, so I will bear him a child even though I do not want anymore. I want to make him happy” (Lihle#RP10)

“My partner and I don’t engage in protected sex, my partner states that he cannot use a condom and his intentions are to impregnate me..... We do not have a child of our own- it would be nice to have a child together” (Sanele#RP05)

While anti-retroviral therapy assists in reducing viral load in the body and therefore reduces the risk of transmission of HIV, individuals on ART can still infect sero-negative individuals with the virus and re-infect sero-positive individuals. This was misunderstood as a participant that was on ARV’s was under the impression that her high CD4 cell count represented a low infection rate to her partner and this promoted her to engage in risky behaviour.

“The fact that I am on anti-retroviral therapy and my CD4 cell count is high, this doesn’t put pressure on me to use a condom- and I practice unsafe sex” (Ntombi#RP03)

In a midst of HIV/AIDS, condom use is regarded one of the most effective methods of curbing the spread of HIV and preventing unwanted pregnancy. However, the research revealed that condom used especially with cohabiting and married women was rare. This study found that all women who had partners, cohabiting or married at some point in their relationships did not use condoms and were not on other contraceptive method.

“Sometimes we use a condom, but in most occasions we don’t and I don’t know why I don’t fall pregnant because I am not on any contraceptives” (Makhosi#RP12)

The study further found that sero-positive women were not afraid of infecting their partners, as in many cases their partners were also sero-positive. The fear of re-infection was also reduced, especially amongst couples that were in stable relationships, married and had a support system. Only one participant had a sero-negative partner.

*“My partner and I occasionally have unprotected sex and when he tests, he always tests negative, this also makes him not afraid of infection”
(Londiwe#RP07)*

The research study further found that other forms of contraceptive methods to curb or protect against re-infection, STI's and pregnancy were not used. They showed comprehensive understanding on the aim of condom and contraceptive use. However, this principle was swayed by emotional attachments and fulfillment of other desires as noted above.

The obligation to meet societal expectations was also found to be a contributing factor to unwillingly choosing to have children. Society views child bearing of sero-positive women as aberrant behaviour. Becoming pregnant while knowing your positive HIV status was viewed by the women as a time to deter stigma or discrimination of being accused to being HIV positive, and pregnancy deterred these accusations.

“There were rumours that I was HIV positive and about to die because I looked sick. However, a few months after I became pregnant, people assumed I had kidney problems. I have never confirmed their suspicions” (Mbali#RP08)

4.2.5 HEALTH FACTORS

Being HIV positive on its own has emotional and psychological impacts on individuals. Two women reported that they had miscarriages but were unaware if their positive status was the key cause. The loss of their unborn children left scarring that persuades them not to engage in child-bearing. Having miscarriages and the risk of infecting their unborn children were so intense that desires of having children were minimal.

“I had a miscarriage and it is really something difficult to go through. I sometimes think of having another child. But after having three miscarriages, I cannot, no I can never” (Sbongile#RP09)

“I have a fear of infecting the child. However, I heard that there is a pill that the doctor gives you while pregnant to protect your baby. But I am scared” (Zama#RP06)

The general message from health professionals is that sero-positive women must not have babies. This causes emotional turmoil as pregnant sero-positive women are viewed as irresponsible and bearing children who will be burden to others. Women in this study considered their high CD4 cell count, good health conditions and their financial ability to care for their children crucial before pregnancy. One of the participants noted that health care professionals echo safe sex and was uncertain how she can bear children if this information is bombarded to her.

“We are taught to use a condom all the time so we won’t infect other people. What procedure is available for me to have children without infecting my partner? (Zama#RP06)

The women in general had a basic understanding of the role of their health professionals that they were the key in assisting them pursue their fertility desires. Only two of the participants lacked information when it came to fertility choices for sero-positive women.

“I have never received such information from the clinic. Maybe it’s because we do not ask- we just want to collect our medication and leave” (Zama#RP06)

“I would like the Doctor to provide that information to me personally” (Mbali#RP08)

4.2.6 ARV’s AND FERTILITY

Stanwood et al (2007) suggested that not being on HIV medication and having a higher CD4 cell count were associated with the desire for future child bearing. It is imperative to note that nine of the research participants were already on anti-retroviral therapy for more than a year.

“Being on ARV’s cannot influence negatively my chances of bearing children, especially if my CD4 count is high. As I know if you drink pills properly and your viral load is alright, your Doctor can assist with the process” (Bongiwe#RP01)

“People on ART can still have children, and children can be protected” (Sanele#RP05)

Two of the participants’ were on ART when they decided to engage in child bearing. Having a child requires a partner that would be placed at risk of HIV infection. Therefore, disclosure of one’s positive status would have to occur. Women in this study showed a positive outlook on

disclosing with almost all having the courage to inform their partners of their sero-positive status.

*“The time he was pursuing me, I informed him of my positive HIV status”
(Bongiwe#RP01)*

4.2.7 EDUCATION, EMPLOYMENT STATUS AND ECONOMIC FACTORS

Education is a pivotal element in exploring fertility choices. This research study found that the level of education among the participants was at secondary level with only once participant who completed Grade 12 and was in tertiary education. That participant was married and had only one child. However, she reported that her education was not solely the basis for not wanting children. However, it was fears that her health would plunge after child birth.

“I gave up desiring having more children when I discovered my positive status. There were thoughts and fears of when I am pregnant or my baby is born, my health would deteriorate” (Ntombi#RP03)

The ideology of raising children extends beyond the physical ability but also providing to the child’s needs. A mother of five children who earns a basic salary which is very minimal said that she cannot afford to have more children because she was struggling financially with the one’s she had. This woman was in a relationship at the time of the interview. Having a stable relationship did not ensure that she would choose to have more children.

“My economic status does not allow for me to have more children, plus the salary I earn is little to provide for the children I have. I do not wish to make the lives of my children difficult” (Londiwe#RP07)

Social support grants are not sufficient and are not a solution to millions of women who cannot afford to raise their children. Health awareness and education programs alone cannot solve many challenges faced by sero-positive women; other sectors should provide survival strategies to individuals on a long term basis.

“Growing up I aspired in having five children. However, I realized that too many children would be expensive. My financial circumstances do not allow for more children” (Bongiwe#RP01)

“My low economic status is a contributing factor to my decision on having one child and the fact that I am not married” (Jabu#RP02)

The study revealed that despite having fears of infecting their unborn children, women were greatly concerned about not having a baby of their preferred sex. Women who had son(s) wanted female children and vice versa. There was great emphasis placed on this as the women felt as though not having a certain sex made the sense of family incomplete.

“I have fears that I might be blessed with boy’s only and may have another son even though I want a daughter, what will I do with so many boys? I want a significant gap between my children because I have three sons, and I want a daughter” (Zinhle#RP04)

“I have two daughters. I need at least one boy, to carry the family name”

(Sbongile#RP09)

4.3 CONCLUSION

This chapter presented on the key findings as outlined by the research participants' from Welbedacht West. The factors that influence fertility choices were outlined as they both had a positive and negative impact on fertility desires. The study observed that intentions were influenced by bio-medical and socio-economic factors. Furthermore, it was apparent that fertility decisions are not just based on individual desires but a collective.

CHAPTER FIVE

DISCUSSION

5. INTRODUCTION

This study has explored multiple factors that influence fertility choices by sero-positive women as per the findings from the research study conducted in Welbedacht West area. The study draws on in-depth interviews conducted with sero-positive women of child bearing age.

5.1 SERO-POSITIVE STATUS AND PARTNER DESIRES

The findings suggest that sero-positive women are faced with many factors influencing their fertility choices. Being HIV positive is overwhelming in its own. There are social expectations that women must bear children, these expectations are not just for themselves but their partners as well. Although, all of the research participants had children; the majority of them had children prior to their positive diagnosis. However, four pursued child bearing post knowledge of their status.

Conflict between desires of the individual and the perceptions of others proved that individual beliefs and attitudes were not independent from social norms and perceived behavioural control. Cooper et al (2005) indicated that one of the complexities is partner and family involvement in decision making. The study resonates with those of Jewkes & Nduna (2008) and Cooper et al (2005) that people's behaviours are in line with gaining approval from others, especially

partners, to have children. The study found that women who already had children and had no desires of having more, were being compelled by their partners to reproduce, especially were the partner does not have a child or the couple does not have children of their own. Satisfying partner desires was a contributing determinate of sero-positive women choosing to reproduce. The women willingly accepted their partner's desires which may be because of the fulfillment of the concept of family.

Contrary to the negative message in literature indicating that societal pressures have resulted in sero-positive women risking bearing unwanted pregnancy in order not to be discriminated against or risk losing their partners. The study found that women who had partners were willing to allow partner fertility desires substitute their own, not because of fear of rejection but having children together made the context of family more important. Additionally, where partners did not have children; women felt obligated to conceive in order to strengthen their relationships.

5.2 CHILD BEARING AND SERO-POSITIVE STATUS

The findings depict that a sero-positive status has little significance to the participants' fertility intentions; children are viewed as a fundamental asset for all women. This is even represented by the fact that all of the women had children prior or post knowledge of their sero-positive status. Having children is regarded as an intrinsic part in the process of life and women in the study were willing to "risk it all" in order to accomplish this. Children were reported to add value and meaning to life as they brought a sense of joy and fulfillment. Berger, McGreen & Rifkin (1996) states that, humans seek what they value, and they act in ways that are consistent with their

values and perceptions of reality. The theoretical framework agrees with this that behaviour is governed by intentions. Cooper et al (2007) indicated that children are considered essential to self-fulfillment and childless women can be the object of public scrutiny resulting in vulnerability or abandonment by their partner. Contrary to this belief, the study found that child bearing was no-longer every woman's priority, since they already had children.

The study found that socialization propagated child bearing desires, as reference of other women of the same age group who had achieved child bearing was noted. Children were viewed as an element in completing the image of self and a way of normalizing sero-positive women's lives. Findings revealed the importance of having children were regarded as adding value to the context of life, especially to the conceptual ideology of the context of family for those women who had partners.

5.3 SOCIO-ECONOMIC INFLUENCES

Having a support system was the integral factor to women deciding to bear children. The sense of stability and emotional security had a positive influence in sero-positive women engaging in reproduction, this proved to be a key determinate in explaining factors influencing fertility choices of sero-positive. Support was not limited to having a partner but financial support was also regarded as a pivotal contributing factor that influenced fertility choices positively.

The study found that all of the participants' were receiving some form of income, either from their jobs, partners and the child support grant. Having an income relieves the burden of caring for children under impoverished circumstances. Investigations revealed that an income alone was did not determine fertility choices. Evidence depicted that the income generated was insufficient in caring for the whole family and this inhibited their desires to have more children. The poor economic status of most of the participants was a key determinate of rejecting child bearing.

5.4 ASPIRATION VERSUS INTENT

It is pivotal to note that an aspiration of engaging in fertility does not necessarily imply intent. The study found that all of the participants had aspirations of having more children than they currently have prior to their sero-positive diagnosis. However, evidence reveals that after their diagnosis eight of the participants stopped having children. It has been noted that complications of health related problems and other trepidations of transmission and low income were prominent factors that influenced women in choosing not to engage in reproduction. The study found that women were very knowledgeable in terms of the preventative methods to hinder child bearing. However, exposure to pregnancy was not a major concern to some women. Women were more interested in strengthening relationships with their significant partners.

5.5 RISKY BEHAVIOUR AS AN ACT OF LOVE

The investigation revealed that exposure to pregnancy was common to women of younger age groups. Furthermore, the investigation found that all of the women who had children post

knowledge of their positive status derived from the younger age groups. Inconsistent condom use among all of the respondents was noted. Sex without a condom is regarded an act of love and trust, if a women had to requests for her man to use protection it would inflict a sense of doubt and untrustworthiness. Condoms are seen as a barrier in developing and maintaining a secure and safe relationship. Women have little or no say in the use of condoms during intercourse, (SAFAIDS, 2000). All of the women irrespective of their marital status indicated that condom-use was erratic and that engaging in unprotected sex was initiated by their partners. Budlender (1996: 25) made a significant point that “women’s oppression arises out of a system of gendered social relations which shape women’s position in society”.

5.6 ARV’S AND FERTILITY CHOICES

Investigations found that emphasis on health related problems were mainly on the fears of transmission: of their children or significant others and the risk of their own health deteriorating during and after child birth. Bartlett (1994) proposed that society exalted the ideology of motherhood based on self-sacrifice and unconditional love.

The use of ARV’s has significantly decreased mother-to-child transmission of HIV. Results from various studies have shown the drastic decline of mother-to-child transmission. The correlation between the use of ART, the period of usage and the period of first pregnancy after diagnosis of a positive status was unclear to determine if participants’ had children after being on ART; and whether ART promoted or hindered child bearing. However, evidence indicates that eight of the women never had children after their first diagnosis of HIV. HAART can improve the likelihood

of pregnancy but the study was unable to ascertain whether the introduction of HAART contributed to their infertility because unprotected sex was occurring frequently and no contraceptive method were in place and fertility was not occurring.

The effects of antiretroviral and fertility have been elusive irrespective of the fact that being on HIV medication increased the risk of exposure to pregnancy because of the low viral load and better health. However, the study found that there were complications with pregnancy were women were not on antiretroviral therapy as two women had miscarriages.

5.7 CONCLUSION

The war against HIV and AIDS can only be combated through various interventions and collaborations. The study found that two participants who have been living with the virus for more than two years were uninformed about the services available to them. Confusion and uncertainty should be eliminated by information giving, education programs and campaigns on PMTCT, opportunistic infections should be widely available and recurring both sero-positive and negative women are motivated to go for regular assessment to their medical practitioners.

The findings indicate that women of reproductive ages require access counseling and consultation with health professionals and their fertility choices explored prior to pregnancy. It is evident that key responsibility lies with the sero-positive woman who desires to have a child to consult with her health professional. However, this is a shared responsibility with health

professionals to cascade information and educate women of their right to access these service and alternatives available to them.

5.8 LIMITATIONS OF THE STUDY

The study added value to the body of knowledge with regards to the subject matter. However, the study was conducted with a homogenous race group. Therefore, the results should not be generalized, since they are not fully representative of all sero-positive women and women of other races in South Africa.

Participants' were recruited from a support group and as a result of the bio-medical information discussed in support group sessions; participant's perceptions may be influenced by this. The period of diagnosis and commencement of treatment and the period of interviewing were not measured in this study, and these variables could have a significant effect on the emotional state of participants. For example: women who were diagnosed earlier on their sero-positive status may have become comfortable and realized that they wanted to have children as a result of improvements in the health sector. Furthermore, the research findings may not apply to women who are not in a support groups.

The study did not examine how pregnancy desires and sexual activity changed while participants were on ART which is a key indicator on fertility.

All of the women were interviewed at the site which may have resulted in them obligingly participating because of the expectation that they should be knowledgeable about the subject matter because of their role in the community.

The setting of the venue had a negative impact on the interviewing process, the venue is used for multiple purposes and while interviewing, there would be a knock people requesting to enter the venue to take files. In-depth interviews were time consuming and at times the questions probed made the respondents emotional because of the sensitivity of the discussion and the researcher had to pause interviewing and provide therapeutic services before continuing with interviews.

5.9 RECOMMENDATIONS AND CONCLUSION

Evidence from the research study revealed that age, marital status, women's educational levels; employment status, financial and social circumstances, support systems, knowledge and experience of HIV and AIDS, quality of PMTCT education and good health (high CD4 cell count) were the basis for their decision-making abilities which are in line with the integrated behaviour theoretical framework utilized. These models focus on individual motivating factors as the main determinants of health and social behavior. The major assumption in this framework is that intention is the best predictor of behavior, women's fertility choices are constructed by attitude, perceived norms, and personal agency.

Women's lives are complex as their experiences are unique. Their identity is socially constructed and fertility choices are not exclusively the responsibility of the individual. Fertility choices of sero-positive women play an integral part in health strategies as they are determinates of risky

behaviour patterns. The study findings depict that in-consistent condom use is relatively prevalent among sero-positive women, which is one of the indicators of fertility desires. However, further investigations on risky behaviour patterns with no intention of reproduction should be conducted.

The majority of the women decided not to pursue child-bearing, although it was clear that their sero-positive status had minimal influence on their fertility choices, as the risks of infecting a sero-negative partner were perceived to be minimal as their partners were known to be sero-positive. Having children may be regarded as a way of normalizing their lives and also a way of thanking their partners for their support, women who were in supportive romantic relationships, regarded children as of great importance in completing the ideology of family, and risks of transmission were reduce because of the knowledge that they will not be going through the process alone.

Though fertility aspirations do not necessarily imply intent as revealed by the study, many women aspired to have more children prior to their positive diagnosis. The need to have more children was no-longer every woman's priority especially after their positive diagnosis. This could be evidently because they already had children prior to their diagnosis or they had unconscious suppressed fears.

Reproductive health needs of sero-positive women cannot continue to being ignored. Fertility choices of sero-positive women should be contextualized within the framework of clinical

disease staging, CD4 cell count, viral load and presenting AIDS defining illness, all of which have shown to affect the outcome of pregnancy (Newel, 1995).

Further research should be conducted into methods of enabling sero-positive women to have children with fewer anxieties on the risk of transmission and evaluate the effects of HIV and antiretroviral therapy on fertility in women with HIV as many studies have failed to indubitably make correlations between the use of ART and fertility chances. Long term plans are needed to formulate conceptual frameworks that will better predict health promoting reproductive behaviours of women.

Health professionals are the first level of contact with clients and they provide essential information. Guidelines about advice that is provided to patients should be based on the uniqueness of their circumstances. Fertility discussions should occur prior to fertility intentions. Information on HIV and pregnancy should be easily available to promote informed decision. Health professionals should champion this initiative and provide available options as revealed in the study, women who have desires and intentions to have children have not initiated these conversations with their healthcare providers. Reproduction desires should be included in HIV education programmes that are conducted and risks discussed.

BIBLIOGRAPHY

Alan Guttmacher Institute (AGI). (1995). *Hopes and realities; Closing the gap between women's aspirations and reproductive experiences*. New York: AGI.

Amoateng, A.Y & Heaton, T.B. (2007). *Families and Households in Post-Apartheid South Africa: Socio-demographic Perspectives*. Human Sciences Research Council: Child Youth, Family AND Social Development Research Programme. University of Michigan.

Anderson, B. A. (2003). *Fertility, poverty and gender*. In Department of Social Development (2003) *fertility: current South African issues of poverty, HIV.AIDS and youth- Seminar Proceedings*. Pretoria. Human Sciences Research Council.

Babbie, E. (2008). *The basics of Social Research*. (4th Ed.). Thomson Wardsworth publishers: USA.

Bartlett, J. (1994). *Will you be mother?* London. Virago, p207-9.

Baylies C. (2000). *The impact of HIV on family size preference in Zambia*. *Reproductive Health Matters*.

Bennell, P. (2005). *The Impact of the AIDS Epidemic on Teachers in Sub-Saharan Africa*, *Journal of Development Studies*, vol. 41(3), pp. 440-466, Academic Search Complete, EBSCO host, viewed 8 May 2014.

Berger, R., McBreen, J.T., and Rifkin, M.J. (1996). *Human Behaviour: a perspective for the helping professionals*. Longman Publishers. USA.

Bernard, H.R. (2002). *Research methods in Anthropology: Qualitative and Quantitative Approaches*. Rowen & Littlefield Publishers. United Kingdom.

Blackie, I.R., & Balekang, G.B. (2016). *Desires, intentions and decisions of HIVpositive women in attaining motherhood in Botswana*. *American Journal of Social Sciences*, 1, A1-A17. Retrieved from <http://www.ASRAresearch.org/ajss-vol-1-no-1-2016>

Bongaarts, J. (1978). *A framework for analyzing the proximate determinants of fertility*. *Population and Development Review* 4(1): 105–132.

Brink, H. (2006). *Fundamentals of research methodology for health care professionals*. Lansdowne. Cape Town.

Budlender, D. (1995). *For the women's health project. Health in our hands: Proceedings and policies of 1994 Women's Health Conference*. Johannesburg.

Bury, J. (1994). Education and Prevention of HIV infection. pp99-109 in J. Bury, V. Mornson, and S. McLachian (Eds), *Working with women and AIDS*. Travistock. London.

Caldwell, J.C. & Caldwell, P. (2003). The fertility transition in sub-Saharan Africa. In Department of Social Development fertility: current South African issues of poverty, HIV/AIDS and youth. Seminar Proceeding. Pretoria. Human Sciences Research Council.

Chazan, M. (2008a). The making of vulnerabilities: understanding the differentiated effects of HIV and AIDS among street traders in Warwick Junction, Durban, South Africa. *African Journal of AIDS Research*, 6(2): 165–73.

Chen, J.L., Phillips K.A., Kanouse D.E., Collins R.L. & Miu A. (2002). Fertility desires and intentions of HIV-positive men and women. *Family Planning Perspectives*, 33(4): 144-152.

Chimere-Dan, O. (1996). Contraceptive prevalence in rural South Africa. *International Family Planning Perspectives* 22(1):4-9.

Chimere-Dan, O. (1999), Marriage and the fertility transition in South Africa. Paper presented at the third African Population Conference. Durban, South Africa, 6-10 December.

Cohen, L., Manion L. & Morrison K. (2011). *Research methods in education*. London: Routledge.

Cohen, L., & Manion, L. (1994). *Research methods in education (4th Ed.)*. London: Routledge.

Cooper, D., Bracken H., Myer L., Zweigenthal V., Harries J., Orner P., Manjezi N., & Ngubane P. (2005). Policy Brief: Reproductive intentions and choices among HIV- infected individuals in Cape Town, South Africa. Lessons for reproductive policy and service provision from a qualitative study. Policy Brief. Cape Town: Women's Health Research Unit: University of Cape Town, and Population Council.

Cooper, D., Harries J., Myer L., Orner P., Bracken H., and Zweigenthal V. (2007). Life is still going on: Reproductive intentions among HIV-positive women and men in South Africa, *Social Science and Medicine*, 65 (2): 274-283.

Craft, S.M., Delaney R.O., Bautista D.T., & Serovich J.M. (2007). Pregnancy decisions among women with HIV, *AIDS and Behavior*, vol. 11, no. 6, pp. 927–935.

Creswell, J.W & Plano Clark V.L. (2011). *Designing and conducting mixed methods research*. SAGE Publications.

Daniel, O and Oladapo, O. (2006). Acceptability of prenatal HIV screening at the primary care level in Nigeria. *Journal of Obstetrics and Gynaecology: the Journal of the Institute of Obstetrics and Gynaecology*, 26(3):191-194.

De Vos, A.S., Strydom H., Fouche C.B. & Delpont C.S.L. (2005). *Research at Grassroots, for the Social Sciences and Human service professions* (3rd Ed). Van Schaik Publishers: Pretoria.

DoH (Department of Health, South Africa). (1998). *South African Demographic and Health Survey: Preliminary Report*. Pretoria. Department of Health.

Department of Health (2002). *Medical Research Council and Measure DHS+. South Africa Demographic and Health Survey*. Department of Health: Pretoria.

DOH, (2007). *Policy and Guidelines for the implementation of the PMTCT programme*. Pretoria. Department of Health - South Africa.

Doyal, L., & Anderson J. (2005). My fear is to fall in love again. How HIV- positive African women survive in London, *Soc sci med*, 60(8):1729-38.

Erikson, E.H. (1950). *Childhood and Society*: New York: Norton.

Feldman, R. & Mapashere C. (2003). Safer sex and reproductive choice: findings from 'positive women: voices and choices' in Zimbabwe. *Reproductive Health Matters* 11(22): 162-173.

Fredrick, E., Nakigozi M.G., Reynolds S.J., Anthony N, Tom L, David S, Fred N, Wawer M and Grey R. (2011). Associates between HIV Antiretroviral Therapy and Prevalence and Incidence of Pregnancy in Rakai, Uganda.

Freedman, R. (1986). Fertility determinants. In Cleland and Scott (Eds). World fertility survey: an assessment of its contribution. London. Oxford University Press.

Garenne, M. & Zwang, J. (2006). Premarital fertility in Namibia: trends, factors and consequences. *J Biosoc Sci*, 38:145–167.

Glanz, K., Rimer B.K., & Viswanath K.V. (2015). Health behaviour and health education. Theory, research, and practice. San Francisco. John Wiley & Sons.

Grieser, M., Gittelsohn J., Shankar A.V., Koppenhaver T., Legrand T.K., Marindo R., Mavhu W.M et al (2001). Reproductive decision making and HIV epidemic in Zimbabwe. *South Africa Study* 27(2): 225- 243.

Harries, J., Cooper D., Myer L., Bracken H., Zweigenthal V., & Orner P. (2007). Policy maker and health care provider perspectives on reproductive decision making amongst HIV-infected individuals in South Africa. *Biomed Central Public Health* 7-282.

Harrison, A, & O’Sullivan, L.F. (2010). In the absence of marriage: long-term concurrent partnerships, pregnancy, and HIV risks dynamics among South African young adults. *AIDS and Behavior*.

Harrison, A. (2005). Young people and HIV/AIDS in South Africa: Prevalence of infection, risk factors and social context. In S.S. Abdool Karim & Q. Abdool Karim (Eds.) *HIV/AIDS in South Africa* (pp 262-283). Cambridge: Cambridge University Press.

Heys, J., Kipp W., Jhanqri G.S., Alibhai A., Rubaale T. (2009). Fertility desires and infections with the HIV: results from a survey in rural Uganda. Uganda.

Higher Education South Africa (2008). HIV and AIDS in the Higher Education Sector. Findings of the study on HIV seroprevalence and related factors at the University of KwaZulu-Natal.

Homsy, J et al. (2008). Incidence and determinants of pregnancy among women receiving ART in rural Uganda. Fifteenth Conference on Retroviruses and Opportunistic Infections, Boston, abstract 74.

Hoosen, S., & Collins, A. (2004). Sex, sexuality and sickness: Discourses of gender and HIV/AIDS among KwaZulu-Natal women. *South African Journal of Psychology*, 34(3), 487-505.

Jewkes, R., Nduna M., Jama N., Levin N., Dunkle K., Puren A., Duvvury N. (2008). Impact of stepping stones on incidence of HIV and HSV-2 and sexual behaviour in rural South Africa: cluster randomised controlled trial.

Kaida, A., Laher F., Strathdee S., et al (2011). Childbearing intentions of HIV-positive women of reproductive age in Soweto, South Africa: the influence of expanding access to HAART in an HIV hyper-endemic setting. *American Journal of Public Health*; 101 (2).

Kanniappan, S., Jeyapaul M.J., & Kalyanwala, S. (2008). Desire for motherhood: exploring HIV-positive women's desires, intentions and decision-making in attaining motherhood. *AIDS Care*, vol. 20.

Kasiram, M., Partab R., & Dano B. (2006). HIV/AIDS in Africa: the not so silent presence. *South African Family Practice*, Volume 48, Issue 21. Print Connection Publishers.

Larson, R. & Richards M.S.H. (1994). *Divergent realities: the emotional lives of mothers, fathers, and adolescents*. Basic Book Publishers.

Lewis James J, Ronsmans Carine, Ezeh Alex, Gregson Simon (2004). The population impact of HIV on fertility in sub-Saharan Africa. *AIDS*.

London, L., Orner P.J., & Myer L. (2008). Even if you're positive you still have rights because you are a person. Human rights and reproductive choice of HIV-positive persons. *Developing World Bioethics*, 8(1): 11–22.

Maane, E. (2009). *Umzala: a woman's story of living with HIV*. Openly Positive Trust.

Makhaye, C. (2014). Women with HIV sterilized. Ops done against their will. *Sowetan*. Available at www.newsdesk@sowetan.cp.za

Manting, D. (1994). Dynamics in marriage and cohabitation. Pdod Publications. Amsterdam.

Massad L.S; Springer G, Jacobson L; Watts H, Anastors K, Korn A, Cejtin H, Stek A; Young M, Schmidt J, Minkoff H (2004). Pregnancy rates and Predicators of conception; miscarriage and abortion in US women with HIV.AIDS 18:281-286.

McIntyre, J. (1999). Mothers infected with HIV reducing maternal death and disability during pregnancy. University of Witwatersrand. South Africa.

Meekers, D. (1991). Education and adolescent fertility in Sub-Saharan Africa. National Academy of Sciences. Nairobi.

Myers, M.D. (1997). Qualitative Research in Information Systems. MIS Quarterly, 21(2):241-242.

Myer, L., Morroni C., & Rebe K. (2007). Prevalence and determinants of fertility intentions of HIV-infected women and men receiving antiretroviral therapy in South Africa. AIDS Patient Care and STDs, 21(4): 278-285.

Myers, K. (2008). Africa gives nothing to anyone – apart from AIDS. Independent.ie, 10 July. Available at: <http://www.independent.ie/opinion/columnists/kevin-myers/africa-isgiving-nothingto-anyone--apart-from-aids-1430428.htm>

National Department of Health. (1999). Government Notice No. 1479, 10 December 1999. Government Gazette No. 20710.

Ndlovu, V. (2009). Considering childbearing in the age of highly active antiretroviral therapy (HAART): Views of HIV-positive couples, SAHARA-J: Journal of Social Aspects of HIV/AIDS, 6:2.

Nebié, Y., Meda, N., Leroy, V., Mandelbrot, L. (2001). Sexual and reproductive life of women informed of their HIV seropositivity: a prospective cohort study in Burkina Faso. Journal of Acquired Immune Deficiency Syndromes.

Newel, M. L. (1995). Vertical transmission of HIV-1: risks and prevention. Journal of Hospital Infection. 30 (1): 191-196.

Nkambule J.D. (2012). The emotional experiences of HIV-positive married women wanting to bear children: an exploratory study. University of Limpopo.

Nkwo, P. (2013). Prevention of mother to child transmission of human immunodeficiency virus: the Nigerian Perspective. *Annals of medical and health services research*; 2(1):58-65.

Oladapo, O.T., Daniel, O.J., Odusoga, O.L & Sotubo, O.A. (2005). Fertility Desires and Intentions of HIV-Positive Patients at a Suburban Specialist Center. *Journal of National Medical Association*. 97(12): 1672-1681

Palamuleni, M., Kalule-Sabiti, I., & Makiwane, M. (2007). Fertility and child bearing in South Africa. *Families and households in post-apartheid South Africa*: HSRC. South Africa

Palella, F.J Jr., Baker R.K., Moorman A.C., Chmiel J.S., Wood K.C., Brooks J.T., Holmberg S.D. (2006). Mortality in the highly active antiretroviral therapy era: changing causes of death and disease in the HIV outpatient study. *HIV Outpatient Study Investigators*.

PATH. Global Consultation on the Female Condom, September 26–29, (2005). Baltimore, Maryland. Presentations from meeting available online at: www.path.org/projects/womanscondom_gcfc2005.php.

Patton, M.Q. (2000). *Qualitative evaluation and research methods* (3rd Ed.). Newbury Park CA: Sage.

Patton, M.Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). Newbury Park CA: Sage.

Preston-Whyte, E. (1993). Women who are not married: Fertility, ‘illegitimacy’ and the nature of households and domestic groups among single African women in Durban. *South African Journal of Sociology*, 24, 63-71.

Prinz, C. (1995). *Cohabiting, Married, Or Single: Portraying, Analyzing, and Modeling New Living Arrangements in the Changing Societies of Europe*. Avebury.

Reynolds, H., Janowits, B., Wilcher, R., et al (2006). The value of contraception to prevent perinatal HIV Transmission, sexually transmitted diseases, 33(6): 350-356.

Ross, A., Van der Paal L., & Lubega R. (2004). HIV-1 disease progression and fertility: the incidence of recognized pregnancy and pregnancy outcome in Uganda. *AIDS*, 18:799–804.

Rutenberg N, Biddlecom E, Kaona F.A. (2000). Reproductive decision-making in the context of HIV and AIDS: A qualitative study in Ndola, Zambia. *International Family Planning Perspectives*.

Sauer, M.V. (2003). Providing fertility care to those with HIV: Time to reexamine health care policy. *American Journal of Bioethics*, 3(1): 33-40.

Sewpaul, V. (1999). Culture, religion and infertility: a South African Perspective. *British Journal of Social Work*. 29, 741-754.

Sheri, B., Kirshenbaum, A. Hirky, E. Correale, Rise B. Mallory O. Johnson, G. Rotheram-Borus and Anke A.M. Ehrhardt. (2004). *Throwing the Dice: Pregnancy Decision –Making among HIV-Positive Women in Four U.S Cities*. Perspectives on Sexual and Reproductive Health. Guttmacher Institute.

Sieber, J.E. (Ed). (1982e). Values and Applied social science. Special issue of *American behavioural scientist*. 147-280.

Smock, P.J. (2000). Cohabitation in the United States. *Annual review of sociology*.

Stanwood, N.L., Cohn S.E., Heiser J.R., & Pugliese M. (2007). Contraception and fertility plans in a cohort of HIV-positive women in care. University of Rochester Medical Center, Rochester. USA.

South African Demographic & Health Survey (SADHS), Project Team (1999). *South Africa in Transition, Select finding from the SADHS, 1998*-Pretoria: Government Printing.

Sowell, R.L & Misener T.R. (1997). Decisions to Have a Baby by HIV-Infected Women. *Western Journal of Nursing Research*, vol. 19, no. 1, pp. 56–70.

Sunderland, A., Minkoff H.L., Handte J., Moroso G., & Landesman S. (1992). The impact of human immunodeficiency virus serostatus on reproductive decisions of women. *Obstetrics and Gynaecology* 79, 6:1027–1031.

Susser, I. (2009). *AIDS, sex and culture: Global politics and survival in Southern Africa*. Chichester: Wiley-Blackwell.

Thornton, A.C., Romanelli F, & Collins J.D. (2004). Reproduction decision making for couples affected by HIV: a review of the literature. *Topics in HIV Medicine*, vol. 12, no. 2, pp. 61–67, 2004.

Udjo E. (2000). Additional evidence regarding fertility and mortality trends in South Africa and implications for population projections. Cited on from http://www.statssa.gov.za/census01/census96/html/metadata/Docs/fertility_udjo.htm

UNAIDS (2000). *HIV and AIDS-related stigmatization, discrimination and denial: forms, contexts and determinants, research studies from Uganda and India*. Prepared for UNAIDS by Peter Aggleton, Geneva: UNAIDS

Van Rensburg, H.C.J. (2004). *Health and Health Care in South Africa*. Indiana University. Van Schaik Publishers

Varga, C. (1997). 'Sexual Decision Making and Negotiation in the midst of AIDS: youth in KwaZulu-Natal, South Africa.' *Health Transition Review*, 7 (Suppl.3), 45-67.