# UNIVERSITY OF KWAZULU-NATAL

# AN EXPLORATORY DESCRIPTIVE STUDY ON THE LEVELS OF PSYCHOLOGICAL DISTRESS IN RELATION TO QUALITY OF LIFE AMONG WOMEN LIVING WITH HIV AND AIDS ATTENDING A REGIONAL HOPSITAL WITHIN ETHEKWINI DISTRICT, KWAZULU-NATAL

**MAKHOSAZANA LUNGILE SIMELANE**

**2015**

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By

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Maternal, child and women's health

To

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## DECLARATION

I, **Makhosazana Lungile Simelane**, declare that "Exploring and describing the levels of psychological distress in relation to health-related quality of life among women living with HIV and AIDS attending a regional hospital within eThekwini district, KwaZulu-Natal" is my own work and has not been submitted for any other degree or examination. All the sources have been acknowledged and indicated in the reference list.

**Ms M.L. Simelane** **Date**

**(991240329)**

**Ms ……** **Date**

**(Research Supervisor)**

## DEDICATION

I dedicate this work to my late mom, Busisiwe Theodora (Ntombi) Simelane. This is a celebration of your life’s legacy, which is one of hope, love, courage and everything beautiful. I know you are smiling down on me from heaven together with the Heavenly Father and a cloud of witnesses.

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# ABSTRACT

**Background:** Despite advances in the treatment of HIV and AIDS with lifelong antiretroviral therapy (ART), women living with HIV and AIDS (WLWHA) still have to deal with the psychological and psychosocial challenges of living with this chronic illness. Such a situation means there has been a necessary shift in focus to clinicians seeking ways to better understand and improve the quality of life and psychological well-being of WLWHA.

**Objective:** The purpose of this study was to explore and describe the levels of psychological distress in relation to health related quality of life in women living with HIV and AIDS who are attending a regional hospital within the eThekwini district, KwaZulu-Natal.

**Methods:** An exploratory-descriptive, non-experimental quantitate approach was employed for the study. The WHO BREF and Kessler 10 (K10) self-administered questionnaire was used to collect data from a sample of 84 WLWHA.

**Results:** The findings showed that the sampled WLWHA had good levels of health-related quality of life. The social (16.3) and physical (16.1) domains had the highest mean scores. The level of independence (13.1) and environment (13.3) domains had the lowest mean scores. The findings also revealed that the women had moderate levels of psychological distress; the mean score for this was 22 (SD = 7.2). There was some interrelationship between socio-demographic factors and health-related quality of life. A significant relationship was also found between age and the psychological domain ($p$–value $< 0.011$). There was also borderline significance between education and the psychological domain ($p$–value $= 0.055$).

**Conclusion:** Women living with HIV and AIDS are still experiencing moderate levels of psychological distress due to living with this chronic illness, HIV and AIDS. However, despite the presence of moderate levels of psychological distress, these women are nonetheless achieving high levels of health-related quality of life.

**Key terms:** Health related quality of life, quality of life, psychological distress, women living with HIV and AIDS.

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## ABBREVIATION AND ACRONYMS

| | |
|---|---|
| **ART** | **Antiretroviral therapy** |
| **CD4** | **Cluster of differentiation 4** |
| **HIV** | **Human Immunodeficiency virus** |
| **HRQOL** | **Health related quality of life** |
| **K 10** | **Kessler 10** |
| **KZN** | **KwaZulu-Natal** |
| **NSP** | **National strategic plan** |
| **PLWHA** | **People living with HIV and AIDS** |
| **QOL** | **Quality of life** |
| **STIs** | **Sexually transmitted infections** |
| **TB** | **Tuberculosis** |
| **WLWHA** | **Women living with HIV and AIDS** |
| **WHO** | **World Health Organization** |

# CHAPTER 1: INTRODUCTION TO THE STUDY

## 1.1 INTRODUCTION

The introduction of life long antiretroviral therapy (ART) has improved morbidity and mortality rates of women living with HIV and AIDS (WLWHA). However, this does not eradicate the complex psychological and physical demands of living with HIV and AIDS as a chronic illness (Gore-Felton & Koopman, 2008, Basavaraj et al., 2010). Women experience physiological, psychological and social challenges that are unique to them as women (Kapetanovic et al., 2014). They experience change in quality of life and family grief as they face the effects of the disease on themselves and their loved ones (Pereira & Canavarro, 2011). Vulnerable groups, women in particular, take on a significant share of the burden of HIV and AIDS in South Africa and especially in KwaZulu-Natal.

Living with HIV and AIDS is a chronic stressor, which has detrimental effects on the health and quality of life of WLWHA (Gibson et al., 2011). These stressors represent potential threats to the individual’s psychological well-being and quality of life (Basavaraj et al., 2010). Some studies have found an association between some psychological symptoms and health-related quality of life (Rai et al., 2010). In view of the above, this research project attempts to show the possible association if any of psychological distress on health-related quality of life in WLWHA.

## 1.2 BACKGROUND TO THE STUDY

According to UNAIDS and World Health Organization (2012) global reports, there is decrease in the incidence of newly infected cases of HIV infection; however, national epidemics continue to escalate in many parts of the world (Syed et al., 2013). Globally, approximately 33.2 million people are living with HIV and AIDS and an estimated 2.1 million AIDS deaths occur (Liu & Wang, 2013). In South Africa, there were 6.5 million people living with HIV and were on lifelong ART (Cullinan, 2014). Although HIV is a biological disease, the risk factors for susceptibility to the illness are determined by social factors, and often the face of HIV and AIDS is associated with women, the poor, racial minorities, marginalised groups and socio-economic conditions (Dugassa, 2009).

“HIV and AIDS places an increasing burden on the health of the population, and causes further socio economic problems for individuals, families, communities and governments in many countries” (Basavaraj et al., 2010). Socio-economic conditions have a direct impact on HIV and AIDS as well as on quality of life (Van Stalen & Badenhorst, 2009). HIV and AIDS infection is often linked with poverty (Copeland, 2011). People living with HIV and AIDS (PLWHA) often come from poor or resource-limited settings (Copeland, 2011). This creates a vicious circle as these people lack access to adequate health care, adequate nutrition and shelter, and they are unemployed and have lower education levels (Shisana et al., 2010).

HIV is a progressive illness that brings with it complex challenges, one being adherence to antiretroviral therapy, which often is associated with either short- or long-term side effects (Kalichman & Grebler, 2010). Furthermore, people living with HIV and AIDS face the social stigma that is associated with having contracted the disease through sex (Tenório et al., 2015). They experience change in quality of life and family grief as they face the effect of the disease on themselves and their loved one, this means that they also have to cope with both the clinical and psychological impact of the disease (Reis et al., 2012).

### 1.2.1 HIV and AIDS in the context of women's health

Vulnerable groups, women in particular, experience the double impact of the disease (White, 2010). Globally 52% of people living with HIV are women and that figure is increasing (Gibbs at al., 2011). Women in Africa bear the brunt of the HIV and AIDS pandemic; this is because 57% of PLWHA are women (Dageid and Duckert, 2008). Sub-Sahara Africa has the highest prevalence of HIV, and 60% of Sub-Saharan Africans living with HIV are women (Turan et al., 2011). In 2009, 13.4 million out of the 22.4 million people living with HIV and AIDS in Sub-Saharan Africa were women. Breaking it down even further, the group of women most infected and affected by the disease are those in their reproductive years (Sofolohan & Airhihenbuwa, 2013).

Sofolahan and Airhihenbuwa (2013) also informs us that this group is three times more likely to contract HIV than young men. In South Africa the highest incidence of infection is among women aged 15 to 24 years, and this group comprises 90% of all new infections (Joyner, 2015). There is an estimated HIV prevalence of 12% among women in South Africa (Francois, 2014). In KwaZulu-Natal (KZN), more than 39% of women attending antenatal clinics are living with HIV (Carless et al., 2009).

Women often have to deal with the social issues of HIV and AIDS, with death, fear, shame, rejection, blame, sexual 'misbehaviour' ('sin') and stigma being the most challenging (Turan et al., 2011). Due to biological, social, cultural and economic reasons (which include entrenched social and economic inequality for women within sexual relationships and marriage), women and girls are especially vulnerable to HIV and AIDS (White, 2010).

“Gender inequality is a driver for HIV and AIDS epidemic” (Shisana et al., 2010). In Africa, because of the inequality in gender norms between women and men, women acquire HIV infection early in their sexual life (Issiaka, Cartoux, Zerbo, et al., 2010). Gender inequality makes women more vulnerable to the impact of HIV and AIDS than men (Aziz & Smith, 2011). “HIV in women is characterized by unequal gender relationships between men and women, high levels of violence against women and women’s inability to negotiate condom use” (Dugassa, 2009).

PLWHA are often more concerned with the social consequences of HIV than with technical facts, stigma being the primary concern. HIV tends to negatively impact a woman’s social status in her community. Furthermore, women’s access to care and treatment often depends on their social and economic status (Copeland, 2011), as women often have limited access to income and resources and many have to rely on the Government for social and health services. Women from low socio-economic backgrounds or poverty-stricken communities often have to engage in sexually risky behaviour or put themselves in potentially violent relationships to be able to provide for their families (Copeland, 2011). They have to balance the risk of being infected with HIV with livelihood needs. For a woman already living with HIV, this means negotiating the risk of HIV re-infection.

### 1.2.2 The implications of HIV and AIDS on the lives of women

Living with HIV and AIDS is a complex intersection of socio-cultural, biological and economic factors that have various implications on the lives of women. Women are impacted differently physically, psychologically and socially by HIV infection and AIDS in comparison to men (Jewkes & Morrell, 2012). HIV and AIDS is as much a social disease as a biological one (Aziz and Smith, 2011). Fear, isolation, stigma and issues related to children have been identified as the most pressing concerns for women living with HIV and AIDS (Turan et al., 2011).

#### *1.2.2.1 The double burden of being infected and caring for infected family members*

Many women and girls are either infected or affected by HIV and AIDS, either as mothers of infected children, as care givers of their infected partners, as orphans of HIV and AIDS, or as people infected or living with HIV and AIDS (Udobong et al., 2015). Women living with HIV and AIDS are more likely than their male counterparts to also be caring for others (Schatz et al., 2011, Kipp et al., 2013). When family members are infected with HIV and AIDS, women carry the extra psychological and economic burden of their own illness and being the caretakers of their families (Schatz et al., 2011).

Women and girls also carry the burden of being victims of domestic and sexual violence because they are blamed for the spread of HIV and AIDS; they are abandoned by families and communities and they are often the victims of forced abortions and sterilisation. They consequently lose employment and other livelihood opportunities (Udobong et al., 2015).

#### *1.2.2.2 Sexual discrimination, cultural beliefs and norms*

Women and girls are also generally more prone to sexual discrimination than men; this is especially true for women and girls living with HIV and AIDS. There is an expectation that only women should preserve their virginity in contrast with men who are permitted to have multiple sexual partners and sex outside of marriage. Because of such unequal expectations, women and girls are often blamed by both men and other women for the spread of HIV and AIDS (Jewkes & Morrell, 2012). Too often women find themselves not able to seek care, treatment and support for HIV and AIDS. Women therefore face extreme forms of discrimination, heavy domestic responsibilities, and inadequate access to resources (Loubiere et al., 2009).

#### *1.2.2.3 Gender-based violence and sexual assault of women*

In South Africa, women and girls continue to experience and witness gender-based violence from a very early age (Jewkes & Morrell, 2012). In South Africa gender based violence is the second highest contributor to years of life lost, after HIV (Joyner, 2015). The poorer communities experience more severe forms of gender-based violence and most of these acts take place between individuals from the same social environment (Joyner, 2015). The majority of women in South Africa have experienced or witnessed gender-based violence or rape at home, school, work or in the wider community.

Gender-based violence increases the risk of psychological distress, risky sexual behaviour, and sexually transmitted infections (Joyner, 2015). Davis (2012) argues that stigma is a major challenge to women living with HIV who experience gender-based violence as there is increased risk of isolation, which creates a barrier for obtaining regular care and treatment. The role and status of women in their communities also determine their risk of sexual discrimination and gender-based violence.

#### *1.2.2.4 Roles and status of women in society*

Most women depend on their partners for economic support and this places them in a vulnerable position as they fear to get tested for HIV or disclose their HIV status because they may then be abandoned by their partners or even families (Pereira & Canavarro, 2012). Furthermore, disclosing their status may expose them to gender-based violence and discrimination from their families; this is often the reason why women are not able to negotiate for safer sex in their relationships (Loubiere et al., 2009).

Many women also rely on the Government for social and health services. Although women are usually the primary caregivers, their gender role is often a constraint to their authority and also influences their ability to make decisions about their health or seek medical care and treatment (Dale et al., 2014). Women usually do not prioritise their own needs and this includes their own health needs as their focus is mainly on the well-being of their families (Kithinji, 2013). Women often defer their needs to those of their children and significant others to the detriment of their own health (Demmer, 2011). The core of many women's identity is mediated through their relationships to their children and significant others, and to their roles in the family structure (Dale et al., 2014).

#### ***1.2.2.5 Rural women***

Roles in the family structure are especially well defined in traditional and rural communities. In rural communities, traditional beliefs and cultural norms portray femininity as ignorant innocence, and girls are usually discouraged from seeking information that helps them understand their sexuality (United Nations Development Fund for Women Report, 2009). Rural women and girls marry during their teenage years, often to older partners who may have multiple partners or are in polygamous marriages. In these relationships, there are power imbalances between the woman and the older partner and the former are unable to negotiate the timing or circumstances of sexual initiation, which increases their vulnerability to either contracting the HIV infection sexually or becoming re-infected (Cluver et al., 2011).

Many rural women live in extremely poor conditions, do not have secure incomes, do not own their homes, have limited access to resources, and often rely on Government grants to get by (Sarnquist et al., 2011). These women cannot afford the transport costs involved in reaching the nearest clinic and this in turn hampers their ability to access the appropriate care and treatment (Sarnquist et al., 2011). Living in a rural community and marrying whilst they are teenagers doubles the burden of women living with HIV and AIDS.

#### *1.2.2.6 Adolescent, teenage and orphaned girls*

In KwaZulu-Natal, there is a high prevalence of HIV infection in teenagers, with one in three women becoming infected by age 25 (Donnelly, 2011). Orphaned girls, particularly those who have lost their parents to AIDS, are especially vulnerable; in many cases, they not only have to cope with their own ill health but have the added burden of caring for their younger siblings and managing household relationships (Udobong et al., 2015). When a woman loses family members who provide economic support, they may adopt survival strategies that increase their risk of contracting HIV or becoming reinfected (Udobong et al., 2015).

Teenage and orphaned girls are at risk of experiencing sexual violence and abuse in childhood, which can lead to a vicious cycle of sexual risk taking place in adolescence and adulthood. These women and girls may engage in risky sexual behaviours that increase their risk of contracting HIV or becoming reinfected (Cluver et al., 2011). Young girls are at increased risk of transmitting HIV due to incomplete development of the vaginal tract, which leaves them at higher risk than older women (HIV Law Project, 2009).

#### *1.2.2.7 Women as child bearers and biological vulnerability*

Women are two to four times more likely to acquire HIV infection from unprotected sex compared with men (Campbell, Batt, Ghandour et al., 2008). Women have a larger mucosal surface exposed to their partner's semen, which has a higher concentration of HIV (Udobong et al., 2015). Women are also at risk of contracting other sexually transmitted infections (STIs) and this further increases their risk of contracting HIV (Udobong et al., 2015). Younger women's immature reproductive systems, particularly the cervix, puts them even more at risk of contracting HIV.

In 2012, the national prevalence among antenatal female attendees aged 15 to 49 years was estimated at 29.5% (South African Department of Health, 2012). Because of their role as child bearers and their desire to have children, women find themselves having to worry about transmitting HIV to their unborn children, that is to say mother-to-child transmission of HIV (MTCT). There is also stigma attached to the fact that women can infect their infants during pregnancy, labour, delivery and the breastfeeding period (Turan et al., 2011). Targeting HIV testing at the antenatal clinics places an extra burden and responsibility on women and girls as HIV becomes perceived as a 'woman's disease', shifting the responsibility away from men and the greater community to get tested. This perpetuates the stigmatisation and blame of girls and women as contributing to the spread of HIV.

In view of all these implications, HIV and AIDS in women can be considered to be a chronic stressor that can lead to psychological distress and have an impact on quality of life (Chaudoir et al., 2012). HIV and AIDS, like other life-threatening chronic illnesses, has a major psychological impact because it threatens the quality of life in PLWHA (Vyavaharkar et al., 2012). This psychological toll of the disease generates added stress and negatively impacts on the quality of life of women living with HIV and AIDS (Vyavaharkar et al., 2012).

#### *1.2.2.8 Psychological distress and health-related quality of life in women living with HIV and AIDS*

Advances in HIV and AIDS care and treatment, especially through the introduction of life-long antiretroviral therapy (ART), have prolonged the life expectancy of people living with HIV and AIDS (Maher, 2014). Due to these advances, HIV has moved from being an acute illness to a chronic illness. However, the advancement in life-long ART treatment does not necessarily result in improved psychological well-being as it has created new challenges, particularly with respect to mental health (Maher, 2014).

Although some studies argue that there is evidence that the successful treatment of HIV with life-long ART is associated with a reduction in psychological distress (Campbell et al., 2011), the literature reveals that psychological distress among PLWHA appears to be worse than for people diagnosed with severe or other chronic life-threatening illnesses, and this has raised a critical concern about the quality of life of PLWHA (Tesfaye & Bune, 2014).

## 1.3 PROBLEM STATEMENT

Advances in ART treatment has reduced the complexity of living with HIV and AIDS to a causal relation between disease and treatments, but this situation leaves PLWHA vulnerable to a multitude of stressors that take place over a lifetime (Shukla, 2014). In South Africa, the focus amongst researchers has been mainly on studying health-related quality of life in the context of ART (Preertz & Peltzer, 2010) and this includes studies done in KZN (McInerney et al., 2008). Yet despite the effectiveness of certain HIV treatments such as ARTs, many of the uncertainties embedded in living with HIV as a chronic disease have not yet ben redressed and so those infected with the disease continue to suffer (Wong &Ussher, 2008). All these stressors represent potential threats to the individual’s psychological well-being and quality of life  (Tesfaye & Bune, 2014).

Studies have not yet addressed the gap that exists in understanding the levels of psychological distress experienced by WLWHA, their health-related quality of life, and the relationship between these two constructs. Rai et al. (2010) argue that various psychological symptoms are associated with HIV infection as well as with health-related quality of life. They recommend that further studies be attempted to show the association of HIV symptoms on health-related quality of life. There is a need to better understand the relationship between life stressors, such as psychological distress and health-related quality of life. There is also a gap in terms of understanding these constructs in the context of women living with HIV and AIDS.

## 1.4 THE PURPOSE OF THE STUDY

The purpose of this study was to explore and describe the levels of psychological distress in relation to health related quality of life in women living with HIV and AIDS who are attending a regional hospital within the eThekwini district, KwaZulu-Natal.

## 1.5 OBJECTIVES OF THE STUDY

The objectives of this study were to explore and describe:

1.5.1 The levels of psychological distress among women living with HIV and AIDS.

1.5.2 The levels of health related quality of life among women living with HIV and AIDS.

1.5.3 The inter-relationship between psychological distress and health-related quality of life.

1.5.4 The inter-relationship of socio-demographic characteristics on health related quality of life and psychological distress.

## 1.6 RESEARCH QUESTIONS

The research questions directing this study were as follows:

1.6.1 What is the level psychological distress among women living with HIV and AIDS

1.6.2 What is the level of health-related quality of life among women living with HIV and AIDS?

1.6.3 What is the interrelationship between psychological distress and quality of life among women with HIV and AIDS?

1.6.4 What is the interrelationship between socio-demographic characteristics and health-related quality life among women living with HIV and AIDS?

## 1.7 SIGNIFICANCE OF THE STUDY

This study has important implications for nursing science by making the following contributions to the different areas of nursing science:

### 1.7.1 Nursing education

It will expand knowledge on the topic of psychological distress in relation to quality of life. This is because not much is known about psychological distress and quality of life in women living with HIV and AIDS in the field of nursing science. The literature review will further demonstrates that little is known about this topic in the context of nursing science.

### 1.7.2 Nursing practice

The literature argues that mental health is not systematically integrated into HIV care (Maher, 2014). This could be due to the fact that the focus has been on symptomatic management of HIV and AIDS. However, “Health related quality of life has been accepted as an important metric for the evaluation of the HIV related services ranging from clinical interventions to psychological, social and ancillary services, it is an important tool for understanding individual and psychological factors that influence their well-being” (Andrinopoulos et al., 2011).

It is hoped that the study will make a contribution in strengthening the integration of mental health in relation to quality of life through nursing care and practice. More specifically, it is hoped that the study will assist in the integration of mental health within the nursing curriculum and that topics related to HIV management will become deeply rooted in the general understanding of the psychological or mental health aspects of living with HIV. This in turn will filter into nursing practice and have an impact on how nurses care for women living with HIV and AIDS. This practice recognises the holistic totality of the human being – the interconnectedness of body, mind, emotions, spirit, social/cultural, relationships, context and environment (Dossey, 2009).

### 1.7.3 Nursing research

The literature also mentions that there has been significant and ground-breaking progress in the symptomatic management of HIV and AIDS because of the presence and advancement of ART, transforming HIV and AIDS into a manageable chronic illness (Tesfaye & Bune, 2014). This shift allows space for focusing on other areas of wellness which contribute towards the comprehensive and holistic care of women living with HIV and AIDS.

This study hopes to make a contribution to this shift and focus. The potential outcome is that nursing research will contribute new knowledge and understanding of HIV and AIDS management which does not only focus on the 'medicalisation' of AIDS. One of the aspects that make the nursing profession unique is its focus on care – not just caring for the disease or illness, but caring for the person as a whole.

The nature of this study makes a unique contribution to research as it focuses on the psychological and psychosocial aspects in the lives of women living with HIV and AIDS. The study has given the researcher the opportunity to identify potential strengths and weaknesses in nursing research with regards to understanding psychological distress in relation to quality of life of women living with HIV and AIDS.

## 1.8 OPERATIONAL DEFINITIONS

**1.8.1 Psychological distress**: In this study, psychological distress means a psychological state of emotional suffering characterised by symptoms of depression (e.g. loss of interest, sadness and hopelessness) and anxiety (e.g. restlessness and feeling tense). These symptoms may be tied in with somatic symptoms (e.g. insomnia, headaches and lack of energy) that are likely to vary across cultures (Benoit et al., 2013:1). In the context of this study, psychological distress would mean frequent experiences of anxio-depressive symptoms (e.g. nervousness, sadness, restlessness, hopelessness and worthlessness) over the preceding 30 days.

**1.8.2 Quality of life (QOL)** is a term that is popularly used to convey an overall sense of well-being and includes aspects such as happiness and satisfaction with life as a whole. The World Health Organization defined QOL as “individuals’ perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, standards, expectations and concerns” (Basvaraj et al., 2010). For the purpose of this study, quality of life is a broad construct that can be influenced by many factors such as income,

**1.8.3 Health-related quality of life (HRQOL)** refers to a more narrow definition of QOL and is linked to the World Health Organization (WHO)’s definition of health. For the purpose of this study, health-related quality of life encompasses the impact of disease and treatment on the person’s ability to carry out daily activities and affects well-being. It includes physical, social, cognitive and psychological functions, as well as the subjective sense of health, comfort and well-being (Safren et al., 2011). This term would therefore mean a patient’s perspective of housing, social support and life situation (Safren et al., 2011).

**1.8.4 Human immunodeficiency virus or HIV** is the virus that causes **AIDS** in human beings. It kills an important blood cell: the CD4 T lymphocyte, or “T cell”. T cells can be thought of as the quarterbacks of the immune system. As they die off, the body becomes more and more vulnerable to disease. Germs take this opportunity to invade the body. The diseases they cause are called opportunistic infections. For the purpose of this study, human subjects who are infected with HIV will be termed “women living with HIV and AIDS” (WLWHA).

**1.8.5 Women** For the purpose of this study, a woman was defined as an adult female over the age of 22 years. This is based on Bingham and Stryker’s stages of social emotional development for girls and women (Cornish, 2010).

## 1.9 CONCEPTUAL FRAMEWORK

Albert Bandura’s social cognitive theory provides a unified theoretical framework for analysis of human thought and behaviour (Kvarme, 2011). His theory asserts that behaviour is learned and changed by experience, and was first introduced as a social learning theory. Later it was renamed the social cognitive theory. He is well known for first introducing the person to the social cognitive theory, a deviant from the social theories of the day.

Bandura argued that there was an interaction of the social environment and the person’s conscious thought. How people interpret the results of their own behaviours informs and alters their environments and the personal factors they possess, which, in turn, form and alter subsequent behaviour (Kvarme et al., 2009). He further asserted that human function is moulded by reciprocal interactions of 1. behaviour, 2. personal factors, including cognitive, and 3. environmental events. He called this model the triadic reciprocal causation. These do not however all make an equal contribution to behaviour – that depends on which factor is strongest at any particular moment.

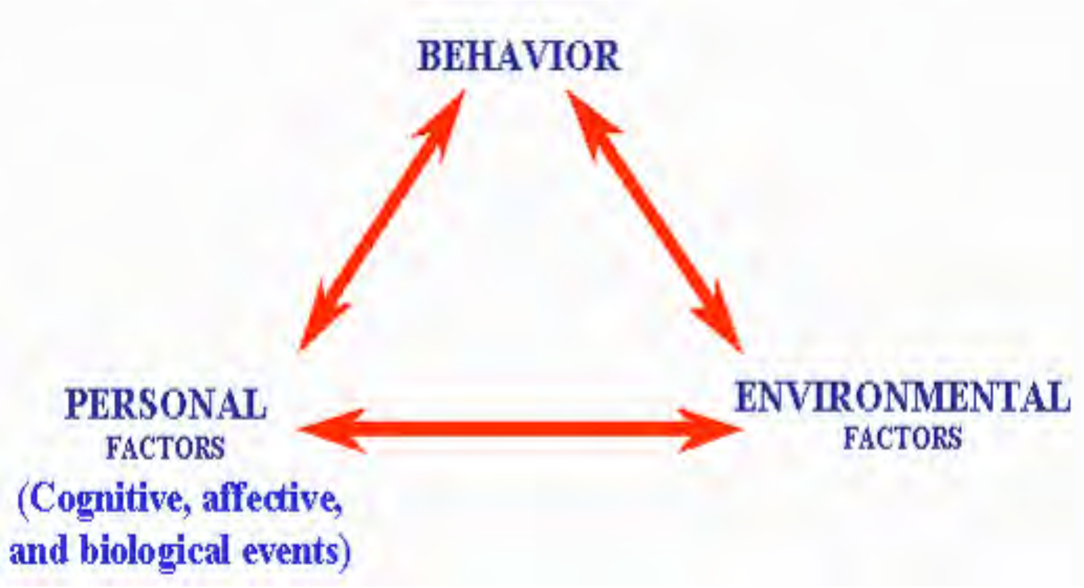

**Figure 1.1 The Bandura model of triadic reciprocal causation**

Bandura viewed human function as the product of a dynamic interplay of personal, behaviour and environmental influences (Schunk & Usher, 2012). Therapy and counselling is done by aiming at the reciprocal nature of the determinants of human functioning in social cognitive theory, directing it at personal, environmental or behavioural factors. Strategies for well-being can be aimed at improving emotional, cognitive or emotional processes, increasing behavioural competencies, or altering social conditions under which people live and work (Schunk & Usher, 2012). To predict how human behaviour is influenced by environment outcomes, it is critical to understand the individual's cognitive processes and how they interpret the outcomes.

The social cognitive theory argues that what people think and believe affects how they behave. People are viewed as both products and producers of their environment and of their social systems. Human lives are not lived in isolation (Schunk & Usher, 2012).

Environments and social systems influence human behaviour through the psychological mechanism of the self-system. Hence social cognitive theory insists that factors such as economic conditions, socio-economic status, and educational and familial structures do not affect human behaviour directly (Schunk & Usher, 2012). Instead they affect the degree to which they influence people's aspirations, self-efficacy beliefs, personal standards, emotional states, and other self-regulatory influences.

Standing at the core of the social cognitive theory are self-efficacy beliefs. Bandura introduced the concept of self-efficacy or efficacy expectation (Schunk & Usher, 2012). Bandura's theory of self-efficacy refers to beliefs in ones' capabilities to organise and execute courses of action required to produce given attainments (Kvarme et al., 2009). In simple terms, self-efficacy is one's confidence in one's ability to successfully perform an action. "One's sense of self-efficacy can play a major role in how one approaches goals, tasks, and challenges" (Kvarme et al., 2009).

Self-efficacy is developed from external experiences and self-perception and is influential in determining the outcome of many events. Self-efficacy represents the personal perception of external social factors. According to Bundura (2002) people with high self-efficacy (that is, those who believe they can perform well) are more likely to view difficult tasks as something to be mastered, rather than something to be avoided. Self-efficacy can be a mediator between stress experience and negative health or well-being outcomes.

### 1.9.1 Application of Bandura's social cognitive theory to psychological distress and health-related quality of life

The social cognitive theoretical framework was applied in the study to explore and describe psychological distress in relation to health related quality of life and to explore and describe the interrelationship between psychological distress and health-related quality of life among women living with HIV and AIDS. The main variables were psychological distress (measured as personal factors) and health-related quality of life (measured as environmental factors). An additional variable was socio-demographic characteristics which was also measured as environmental factors. The study explored the interrelationship of socio-demographic characteristics on health-related quality of life and psychological distress. The behaviour that is the interaction of psychological distress (personal factors) and health-related quality of life (environmental factors) was studied as the interrelationship between psychological distress and quality of life.

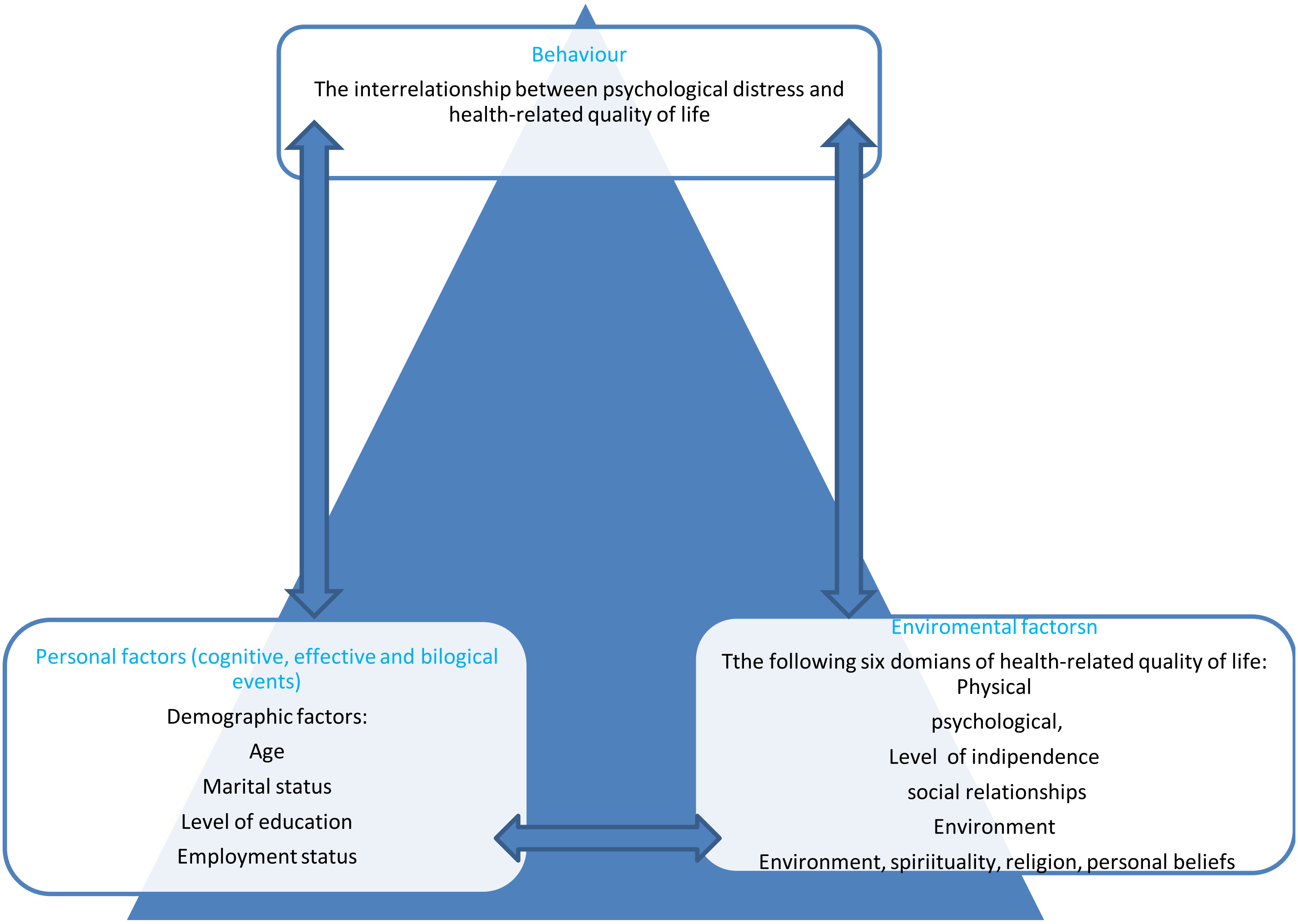

**Figure 1.2 Application of Bandura's social cognitive theory in relation to the study objectives**

### 1.9.2 The reciprocal interaction of the three constructs and its application to the study objectives

As per Bandura's social cognitive theory, psychological distress, quality of life and their interrelationship are viewed as determinants of each other that have a reciprocal interaction. In other words there is a reciprocal interaction between levels of psychological distress and the level of quality of life in WLHA as well as the relationship between the two constructs. Bandura (1977) argues that both people and their environments are reciprocal determinants of each other. In relation to the study, levels of psychological distress could have an influence on quality of life and, in turn, quality of life could have an influence on levels of psychological distress. This application is supported by Bandura's claim that people play an influential role in creating conditions that affect the course and quality of their lives (Bandura, 1977).

Bandura’s construct of behaviour was applied in the description and exploration of the interrelationship between psychological distress and health related quality of life in this study. The construct of behaviour from Bandura’s theory could be the outcome of both psychological distress and quality of life or even the possible relationship between the two constructs (psychological distress and quality of life). This is likely consistent with Bandura’s view that people are both products and producers of their environment and social systems. Bandura’s construct of behaviour informed the study objective to describe and explore the interrelationship between psychological distress and health-related quality of life in women living with HIV and AIDS.

### 1.9.3 Personal factors, general self-efficacy (cognitive, effective and biological events)

An overview of the literature shows a positive association between general self-efficacy and health-related quality of life. General self-efficacy is related to self-belief and an optimistic outlook on life. Some studies have also found a positive association in self-efficacy and health-related quality of life among adult with chronic disease. Self-efficacy and personal factors were used as a framework for exploring and describing levels of psychological distress in women living with HIV and AIDS. (Kvarme et al., 2009) argue that one’s sense of self-efficacy can play a major role in how one approaches goals, tasks and challenges.

It was important for the researcher to apply this concept as a framework for describing and exploring psychological distress in women living with HIV and AID. Self-efficacy beliefs influence an individual thought patterns and emotional reactions. High self-efficacy helps create feeling of serenity in approaching difficult tasks and activities (Schunk & Usher, 2012). People with low self-efficacy may believe that things are tougher than they are, a belief that fosters anxiety, stress, depression and a narrow version of how to best solve a problem (Schunk & Usher, 2012). These are some of the symptoms of psychological distress.

Bandura’s construct of self-efficacy in terms of the study leads to the conclusion that high levels of psychological distress will be associated with low self-efficacy in women living with HIV and AIDS. Conversely, low levels of psychological distress will be associated with high self-efficacy in women living with HIV and AIDS. This prediction is consistent with the majority of arguments in the literature about self-efficacy in women. The literature asserts that people who believe they can exercise some control over their emotional processes are more successful in their self-regulatory efforts than people who believe they are at the mercy of their emotional states (Colodro, Goday-Izizquierdo & Goday, and 2010).

Research has also shown that perceived self-regulatory efficacy mediates the effects of affective states on health" (Colodro et al., 2010:13). In their study of mastery and coping in PLWHA and its effect on mental health-related quality of life, Gibson et al. (2011) found a positive relationship between mastery and mental health-related quality of life. Mastery and self-efficacy played a role in how PLWHA managed life stressors and challenges. PLWHA with high levels of mastery and self-efficacy appeared to be better positioned to reframe life challenges and remain hopeful while facing life circumstances" (Gibson et al., 2011). It is for this reason that self-efficacy was made a predictor of psychological distress or well-being in this study.

The construct of self-efficacy was a framework for exploring and describing the levels of psychological distress in women living with HIV and AIDS during the study. According to Bandura's theory, women living with HIV and AIDS who have high levels of psychological distress were viewed as having low self-efficacy which in turn impacts their quality of life. In view of Bandura's construct of self-efficacy, personal factors guided the objective of exploring and describing levels of psychological distress in women living with HIV and AIDS.

### 1.9.4 Environment

Bandura (1977) argues that both people and their environments are reciprocal determinants of each other. In relation to the study, levels of psychological distress could have an influence on quality of life and, in turn, quality of life could have an influence on levels of psychological distress. This application is supported by Bandura's claim that people play an influential role in creating conditions that affect the course and quality of their lives (Bandura, 1977).

Environment refers to the factors that can affect a person's behaviour (Glanz, Rimer & Lewis, 2002). There are both social and physical environments. Social environments include family members, friends and colleagues (Glanz et al., 2002). Physical environment include the size of the room (Glanz et al., 2002). Environment and situation provide a framework for understanding behaviour. In terms of the study Bandura's construct of environment was a framework for exploring and describing levels of health-related quality of life in women living with HIV and AIDS and socio-demographic characteristics. This means that according to Bandura's theory quality of life and socio-demographics have an impact on the interrelationship between quality of life and psychological distress.

Environment and situation provide the framework for understanding behaviour (Parraga, 1990). Situation refers to the cognitive or mental representations of the environment that may affect a person’s behaviour. The situation is a person’s perception of the place, time, physical features and activity (Glanz et al., 2002). This construct was also used for exploring the interrelationship between health-related quality of life and socio-demographic factors.

Bandura’s theoretical framework of environment was applied for the sake of achieving the following two objectives: exploring and describing levels of health-related quality of life in women living with HIV and AIDS, and exploring the interrelationship of socio-demographic characteristics on health-related quality of life and psychological distress.

While applying each of Bandura’s main theoretical constructs for each of the study objectives, the researcher maintained the view that the main variables of the study have a reciprocal interaction which is reflected by Bandura’s model of triadic reciprocal causation.

# CHAPTER 2: LITERATURE REVIEW

## 2.1 INTRODUCTION

As medical management of the HIV disease continues to improve the lives of PLWHA, it does not necessarily result in improved quality of life (Wong & Ussher, 2008). Living with HIV and AIDS is becoming a chronic stressor that needs to be managed (Reis et al., 2012). “Chronic stressors have detrimental effects on the health and quality of PLWHA” (Gibson et al., 2011). Quality of life of PLWHA is a complex mix of disease, poverty, stigma and discrimination (Odili et al., 2011).

Studies have been reviewed in order to establish if a real gap exists in understanding psychological distress and quality of life in WLWHA. A brief overview of HIV in relation to women was done since the study focuses on the population of women. The overview focuses on the state of HIV both in South Africa and KZN. Quality of life is also discussed based on the findings of other studies. Specific focus is given to health-related quality of life. This is also included in a discussion of the determinants of quality of life such as the physical, psychological and social. Psychological distress is discussed in relation to health-related quality of life in PLWHA.

Lastly, a review of current interventions is offered to establish the progress of these interventions in relation to psychological distress and quality of life, as well as their impact on quality of life and psychological distress. The literature review was compiled using materials found in the databases of the Medicine, Health Sciences and Nursing departments of the University Of KwaZulu-Natal (UKZN). More specifically, these databases included Africa-wide information, Medline, and the ProQuest research library: Health model. The following search terms were used: psychological distress and women, quality of life and women, quality of life and HIV and AIDS, and health-related quality of life.

## 2.2 OVERVIEW OF THE HIV AND AIDS DISEASE IN SOUTH AFRICAN WOMAN

In 2009, 5.3 million people were living with HIV and AIDS in South Africa; the estimated prevalence among adults aged 15 to 49 years was 17.8%, and 3.3 million were females (South African NSP for HIV, STIs and TB, 2012-2016). Nationally, 30% of females attending antenatal clinics are living with HIV (South African National strategic plan for HIV, sexually transmitted infections and tubeculosis, 2012-2016).

The province of KwaZulu-Natal has the highest percentage of adults living with HIV both globally and nationally (Tomita et al., 2014). In 2011 the prevalence of HIV among females attending antenatal clinics in KZN was 37.4%, and within eThekwini district – where the study was conducted – the prevalence is slightly higher than the provincial prevalence, sitting at 38.0% (2011 National Antenatal HIV and Syphilis Prevalence Survey in South Africa). KZN has had the highest prevalence of HIV in women since 1990 (2011 National Antenatal HIV and Syphilis Prevalence Survey in South Africa).

## 2.3 QUALITY OF LIFE

In this study the construct of health-related quality of life will be described and explored. However, in order to better understand this construct it is important to first define the general construct of quality of life. Quality of life does not have a universally agreed upon definition because of its multidimensional construct (Imam et al., 2011). The World Health Organization (WHO, 1995) defines quality of life as an individual’s perception of their position in life in the context of culture and value systems in which they live and in relation to their goals, expectations, standards and concerns (Basavaraj et al., 2010). This definition reflects the view that quality of life is a subjective evaluation, one that is embedded in cultural, social and environmental contexts.

Quality of life is embedded in culture and takes into consideration numerous domains including expectations and consideration of health and well-being, care practices, illness symptoms, and treatment effects. This includes physical, functional, psychological, social, economic, political and spiritual well-being (Olagunju et al., 2012). Quality of life is also looked at as a product of the physical, social, emotional and environmental harmony of a person. Quality of life is further defined as a subjective perception appraised directly by the person with symptomatic HIV and AIDS of physical, psychosocial, sexual wellbeing in day to day activities (Andrinopoulos et al., 2011).

In a clinical context, however, such as nursing care, quality of life mainly refers to those aspects of life affected by health status and this is often defined as health-related quality of life. Health-related quality of life in particular is a multidimensional construct that consists of physiological, psychological and functional aspects of well-being and functions as seen from the individual’s own perspective (Kvarme, 2011). Health related quality of life also emphasises domains directly related to a person’s health (Kvarme, 2011).

## 2.4 HEALTH- RELATED QUALITY OF LIFE

The multidimensional construct of health-related quality of life (HRQOL) has been adopted to capture the well-being of PLWHA. It also refers to how a person feels about their life and how well they function in their daily activities (Friend-du Preez & Peltzer, 2010). One of the key aspects of the construct of health-related quality of life is that it facilitates a patient's perspective of their own health as an outcome measure (Andrinopoulos et al., 2011). It impacts a variety of domains, including physical, psychological, social and financial, all of which affect the disease process (Odili et al., 2011).

Even though health-related quality is specifically related to health it is crucial to still recognise that a person's perspective of their own health is influenced by their position in life in the context of culture and value systems in which they live and in relation to their goals, expectations, standards and concerns (WHO, 1995). During the literature review on health-related quality of life in women living with HIV and AIDS (WLWHA), the following factors were found to be determinants of HRQOL: physical, psychological and social or socio-demographic characteristics (Basavaraj et al., 2010).

### 2.4.1 Physiological factors

Physical factors include the effect of HRQOL on the physical domain of a person's life. In a study by (Safren et al., 2012), higher CD4 count and lymphocytes were associated with higher quality of life in individuals who had started ARTs. This was a significant finding as the study was conducted in eight diverse, resource-limited countries, namely South Africa, Zimbabwe, Malawi, Brazil, India, Peru, Thailand and Haiti (Safren et al., 2012).

Andrinopoulos et al. (2011), however, found that immune function is not significantly associated with HIV health-related quality of life. They do point out that this finding could however be due to the relatively small sample of study participants. In addition, all their study participants were linked to care and expressed high satisfaction with various domains of quality of life. In other words, the relationship between clinical variables and health-related quality of life may have been obscured (Andrionopoulos et al., 2011).

In a study by Arjun et al. (2015), the physical domain was found to have significant statistical scores of $p < 0.05$; this included people living with HIV who had opportunistic infections. Higher CD4 counts were also associated with higher domain scores of health-related quality of life (Arjun et al., 2015). In their setting, CD4 counts were regularly monitored, and it is thought that improvement in cluster of differentiation 4 (CD4 counts) might encourage participants in the betterment of immunity and also encourage them to take care of their health, which would in turn improve their QOL (Arjun et al., 2015).

It is important to also take into consideration that PLWHA may not be asymptomatic, even when presenting with very poor immune functions or very low levels of CD4 cell count, and health-related quality of life may not be affected until the illness is more advanced (Rai et al., 2010). It is very important to take this into consideration when analysing the relationship or the possible statistical significance of immune function on health-related quality of life.

### 2.4.2 Psychological factors

PLWHA experience higher levels of stressors compared with the general population. These stressors include, but are not limited to, trauma, abuse and social rejection. These challenges are associated with a greater likelihood of emotional distress and decreased quality of life. Most of the research to date has mainly focused on the impact of HIV and AIDS on physical health and has not related it to the effect of HIV on the psychological domain of HRQOL (Gibson et al., 2011). There is need for research to focus in on the emotional and social needs of women living with HIV and AIDS.

The literature asserts that the psychological domain of health-related quality of life is often the most disrupted among women living with HIV and AIDS. A Canadian study confirmed that a higher number of stressors are associated with lower physical and mental health-related quality of life (Gibson et al., 2011). Problems with mental health related to HIV infection are quite frequently due to stressful events such as the emotional impact of diagnosis, possible rejection from family, professional ramifications, and impacted social life (Lari et al., 2013).

Depression and anxiety are the most common psychological manifestations in PLWHA. Upon diagnosis, many PLWHA battle with depression, suicidal ideation and anxiety, among others (Lari et al., 2013). Women appear to have more severe symptoms of distress than reported for men with HIV and AIDS, especially women who are living in impoverished conditions (Nyamathi et al., 2012).

Depression is the most common mental disorder reported among individuals living with a chronic illness (Gunn et al., 2012). HIV and AIDS is increasingly becoming a chronic stressor and associations with disease progress have been found in some studies (Nyamathi et al., 2012). People living with HIV and AIDS exhibit a high prevalence of depressive disorder, estimated as 1.99-fold higher when compared to the uninfected population (Mello et al., 2010). The life time prevalence among people living with HIV and AIDS varies from 22%-25% (Mello et al., 2010). Women are particularly vulnerable because they carry most of the burden of the disease (Mello et al., 2010).

In terms of depression and health-related quality of life, depression has been found to be one of the most predictive factors of psychological morbidity (Briongos-Figuero et al., 2011). Higher quality of life scores have been observed in patients who did not have depression or had minimal depression (Briongos-Figuero et al., 2011).

In a study by Naik et al. (2015), it was again found that depression has adverse effects on health -related quality of life in women with HIV. Naik et al. found that effective treatment of depression can dramatically improve the health-related quality of life of HIV-infected individuals. The presence of depressive disorders could result in neglect of physical health and poor compliance to treatment regimens among PLWHA. Accompanying depression are also high rates of anxiety symptoms in women living with HIV and AIDS (Morrison et al., 2014). In a cross-sectional Brazilian study of 228 PLWHA, Reis et al. (2012) found that n=63 (27%) individuals who presented with depressive symptoms, and that these individuals had lower quality of life scores. Women presented with the more symptoms of depression than did men.

The experience of anxiety is a common emotional reaction seen in PLWHA, either at diagnosis or consequently during the course of their illness (Olagunju et al., 2012). A high burden of anxiety has been found in PLWHA and it is up to five times more than that of the general population (Olagunju et al., 2012). Morrison et al. (2014) did a study on 93 women living with HIV and AIDS and 62 uninfected women in order to examine if there was a difference in the rate of depressive and anxiety disorders. They found that there was a significantly higher rate of anxiety disorders among women living with HIV compared with those not infected (Morrison et al., 2014).

Psychological distress levels are affected by various psychosocial factors, which includes key aspects of a woman’s life such as her ability to care for herself and her infected family members, her socio-economic status or role within the community, stigma and vulnerability to sexual discrimination, gender-based violence, and her sexual reproductive health (Nyamathi et al., 2012).

Interventions that increase psychosocial support have been shown to result in decreased levels of psychological distress and improved quality of life in women with HIV and AIDS (Lopez et al., 2012). This is the reason that the impact of psychological distress cannot be separated from the psychosocial factors of living with HIV and AIDS. To be able to measure health-related quality of life it is also important to take into consideration the impact of psychosocial factors on women’s psychological well-being and quality of life.

### 2.4.3 Social and socio-demographic factors

In a study of 92 African-American women, Lopez et al. (2012) found that the presence of social support – easy access to treatment, close clinical monitoring of HIV disease, and overall support of basic socio-economic needs – results in higher quality of life scores. They concluded that effective medical interventions, adequate social support and favourable economic conditions could possibly result in improved quality of life. However, one can argue that the presence of social support alone could be insufficient if the infected women have not resolved the challenges of psychological distress.

Certain socio-demographic factors have also been associated with improved quality of life, namely socio-economic status, employment status, gender and age. In a study by Odili et al. (2011), the only demographic variable that was linked to life satisfaction was level of education. People with a high level of education were found to have higher life satisfaction. Further research is needed to investigate the relationship among the demographic variables as this was a gap in some studies. Friend-du Preez and Peltzer (2010) also found that socio-demographic factors such as level of education affect health-related quality of life. People who reported a higher level of education (Grade 12+) also reported better overall quality of life.

Du-Preez and Peltzer (2010) found that when it came to marital status, the separated, widowed or divorced are reported to have higher quality of life scores than those who are married, living with a partner, or have never married. The group that consisted of participants who were married or were living with a partner reported the lowest health-related quality of life scores (Friend-du Preez and Peltzer, 2010). This was a significant finding as it could possibly mean that being in a romantic relationship is a stressor. Such an assessment is supported by another study, namely that of Briongos Figuero et al. (2011), which found better scores in general health perceptions by single participants, those who lived alone, and those without children.

However, in a more recent study by Arjun at al. (2015), study participants who were married showed higher quality of life domain scores than the unmarried and widowed. The study suggests that the reason for high scores in married participants is the physical, emotional and psychological support of their spouses (this was shown to be more important than support from the rest of the family) (Arjun et al., 2015).

As already mentioned, as much as HIV and AIDS is a medical disease it is also a social disease. Major social aspects such as stigma, poverty and culture cannot be overlooked when studying HIV and AIDS. PLWHA struggle with numerous social problems such as stigma, poverty, depression, substance abuse, and cultural beliefs, all of which can, and generally do, affect their HRQOL (Basavaraj et al., 2010). It is important that further investigations be conducted into how the social problems and socio-demographic factors impact the health-related quality of life of PWLHA.

### 2.4.4 Stigma

Health related stigma is typically characterized by social disqualification of individuals and populations who are identified with particular health problems (Vlassoff et al., 2012). Stigma is manifested in a woman's daily life as fear and shame (Teti, Bowleg & Lloyd, 2010). Stigma contributes significantly towards the burden of the illness. HIV-related stigma exemplifies several dimensions of social disqualification. For starters, it is often attributed to socially marginal behaviour (Vlassoff et al., 2012). Stigma also interferes with behaviour and medical regimen adherence, and is frequently linked with social rejection, disapproval and discrimination, all of which can heighten a person's sense of shame regarding their illness (Turan et al., 2011). This sense of shame serves to lessen their motivation to maintain optimal health (Turan et al., 2011).

In their literature review Vyavaharkar et al (2012) write: perceived stigma [can be] explained as a significant amount of variance in HRQOL among PLWHA in addition to that explained by the HIV related symptoms and severity illness, HIV related stigma has been shown to also compromise physical and social health which in turn affect quality of life.

Andrinopoulos et al. (2011) found that HIV stigma demonstrated a trend toward association with current life satisfaction, however, it did not reach statistical significance (p = 0.097). Stigma affects women's quality of life and psychological well-being (Wagner et al., 2010). Wagner et al. (2010) further argue that stigma affects quality of life and a woman's ability to seek and receive health opportunities. Campbell et al. (2011) maintain that poverty and lack of access to basic health care and welfare services can also be a driver of stigma. To better understand health-related quality of life, social issues such as HIV-related stigma need to be taken into consideration as stigma still plays a significant role in the lives of WLWHA.

### 2.4.5 Poverty

Women living with HIV are confronted with social context vulnerabilities that impede their ability to conduct HIV self-management behaviours, including demanding social roles, poverty, homelessness, decreased social capital, and limited access to health care (Webel et al., 2013). Social contexts are further defined by Webel at al. (2013) as patterns that reflect larger structural forces that shape the texture of people’s day to day realities.

One of the most challenging social context vulnerabilities is poverty. Poverty is a multidimensional concept that is defined in terms of income, consumption, purchasing power parity, standards of living, and social/human indicators of development (Caldas et al., 2010). Poverty is associated with increased vulnerability of transmitting HIV and other sexually transmitted infections (Shisana et al., 2010). Poverty can also drive women into exchanging sex for money, food or other commodities (Shisana et al., 2010). Poverty may inhibit self-management behaviours of women living with HIV, resulting in poor health outcomes (Webel et al., 2013).

Socio-economic status is associated with quality of life. People of low socio-economic status groups or living in poverty have reported lower quality of life compared with those from higher socio-economic groups (Mahalakshmy et al., 2011). In conditions of poverty less income equals decreased access to resources, negatively affecting living environment and social life (Mahalakshmy et al., 2011). PLWHA who do not have enough money to meet their basic needs generate the lowest quality of life and health perception scores as well as the greatest number of HIV-related symptoms (Du Preez & Peltzer, 2010).

Even if PLWHA recover physically from the illness, they often have difficulties in finding employment and recovering from the financial losses imposed by their illness (Caldas, Artega & Munoz, 2010). Poverty is a social factor that has a significant impact on quality of life in general and even more so in the context of HIV and AIDS. Numerous times over the years as HIV and AIDS has spread globally, poverty has been identified as the most challenging vulnerability and women as the most affected population. Poverty is one of the key social factors for understanding health-related quality of life in this study.

### 2.4.6 The relationship between psychological distress and health-related quality of life in women living with HIV and AIDS

Defining psychological distress is crucial before attempting to explain its relationship to quality of life. Psychological distress is largely defined as a state of emotional suffering characterised by symptoms of depression and anxiety. These symptoms may manifest as bodily symptoms that can vary across cultures (Benoit et al., 2014). One of the defining features of psychological distress is the exposure to stressful events that threaten physical and mental health (this includes inability to cope effectively with stressful situations and subsequent emotional turmoil) (Benoit et al., 2014). The emotional well-being of PLWHA, especially women, appears to be worse than for people with other severe chronic diseases (Campos et al., 2010).

Women continue to experience stressors of living with HIV and AIDS as a chronic illness even though ART has prolonged their lives. Women have been found to experience significant levels of depression, especially those from low socio-economic groups, and it has been found that being on ART does not lead to reduction in the prevalence and severity of psychological distress (Lopez et al., 2012). It is therefore increasingly important for clinicians to understand and improve the quality of life of women living with HIV and AIDS. PLWHA experience higher levels of stressors compared with the general population; these include trauma, abuse and social rejection. These challenges are associated with greater a likelihood of emotional distress and decreased quality of life (Briongos-Figuero et al., 2011).

A study in India found that quality of life of HIV-infected people is significantly determined by the clinical stages of infection and that in an advanced stage of HIV infection more attention and care is needed with respect to physical and psychological well-being, level of independence, environment, social relations, and spiritual aspect of life (Rai et al., 2010). Other literature has found that depression and illness acceptance has a significant influence on the quality of life among PLWHA, HIV infected women who are depressed and anxious have reduced HIV-related quality of life (Andrinopoulos et al., 2011).

A study on quality of life in the South African context argued that ART improves physical function and this in turn improves quality of life in those with advanced HIV (McInerney et al., 2008). In another South African study of 612 PLWHA based in three public hospitals in KZN, physical health was also found to be the most significant predictor of higher quality of life (Friend-du Preez & Peltzer, 2010). However, psychological health was found to be a particularly important variable. Despite the higher number of symptoms and financial pressures, participants scored higher in the domain of psychological health (Friend-du Preez & Peltzer, 2010).

It is noteworthy that patients seem to be more concerned with psychological and social functions rather than biological or physical functions. An association was also found between spirituality and psychological health, and this interacts with other health-related quality of life domains such as physical health and independence (Friend-du Preez & Peltzer, 2010). Psychological and spiritual well-being was found to reduce symptom burden and improve physical health in PLWHA (Friend-du Preez & Peltzer, 2010). However, Friend-du Preez and Peltzer also argue that it could be spirituality rather than religiosity that improves psychological health, mostly due to the stigma associated with HIV even in religious groups.

There are also psychosocial factors associated with quality of life; these include limited social support, stigma, restricted financial resources, and access to health care. High levels of social support by significant others results in improved quality of life (Amiya et al., 2014). A large social network is also associated with better mental health and overall quality of life (Amiya et al., 2014).

Women benefit more from social support system than do men. As already mentioned, this is due to the fact that the core of many women's identity is mediated through their relationships and significant others (Davis, 2012). However, it appears that it is still a challenge to reintegrate women living with HIV and AIDS into social networks as they are less likely to receive social support compared with men living with HIV and AIDS (Davis, 2012). This could be due to the fact that women tend to experience more frequent or higher forms of stigma, discrimination and prejudice.

In the South African context, there is not much data about psychological distress in relation to quality of life in women in the post ART era. There is a need for research in this area considering that studies from different parts of the world have highlighted the need for understanding this phenomenon in order to better manage and care for women living with HIV and AIDS.

### 2.4.7 Mental health and psychosocial interventions in the context of HIV and AIDS

As already stated, living with HIV and AIDS is not just about living longer and decreasing the risk of mortality, it is also about coping with the stress of living with HIV and other stressors that are disproportionately experienced by PLWHA such as abuse, trauma and social rejection (Gibson et al., 2011). The discussed literature has clearly demonstrated a correlation between the stress of living with HIV and AIDS and poor quality of life, especially in women. However, outcomes of the effectiveness of mental health and psychosocial interventions have not been properly established.

Some interventions are endorsed by South African health policy such as the South African National Strategic Plan (NSP) for HIV, STIs and TB. The NSP argues that social, cultural, economic and behavioural drivers of HIV should be addressed (NSP for HIV, STIs and TB, 2012-2016). Most interventions for PLWHA focus on behavioural change and reduction of stigma and discrimination, and most countries have embraced this approach to scale up HIV prevention and treatment. However, not much is known about the impact of these interventions.

Kagee and Martin (2010) argue that alternatives for the provision of mental health care among patients who attend South African public health clinics require examination and evaluation. There is an assumption that primary health care nurses are able to provide care for patients with common mental disorders, however this is not always feasible as nurses are often overworked and experience burnout due to large patient numbers (Kagee & Martin, 2010). Because of the lack of resources and infrastructure in primary health care clinics, it is not always possible for patients to receive the care they need for mental health disorders (Kagee & Martin, 2010).

Mental health interventions have not been systematically integrated into HIV care and treatment programmes (Petersen & Lund, 2011). Even in the South African context, a country rife with HIV infection, there are still gaps in mental health interventions (Petersen & Lund, 2011). This could be due to various reasons, such as lack of resources for effective intervention, poor identification of mental disorders, stigma, and low prioritisation of mental health in health services generally. Even though mood disorders such as depression have been found to be the most frequent mental disorder, few resources are allocated to mental health disorders in HIV treatment and care programmes (Freeman et al., 2007).

According to WHO (2008), most countries allocate less than 1% of national health budget to mental health. This is a concern as there is evidence that untreated mental conditions can reduce quality of life. The challenge is translating policy and guidelines into implementation of the interventions. At present, researchers are identifying the gaps and giving recommendations, national governments are adopting the recommendations, but then this is where it often ends. The actual day-to-day implementation at ground level in health care systems of these recommendations is always the challenge. What is needed is a healthy balance where research informs policy and policy in turn informs intervention, interventions being evaluated for effectiveness and so the continuum of the process to ensure best practice and improve quality of life.

The positive impact of interventions could produce positive outcomes on the levels of psychological distress of PLWHA; this includes interventions such as cognitive behavioural stress management and support therapy. However, the literature does not mention to what extent these interventions impact on psychological distress both internationally and in the South African context. The lack of knowledge on either the success or failure of these interventions could be due to a gap in knowledge and not enough research done on the topic of psychological distress and quality of life in women living with HIV and AIDS.

### 2.4.8 Conclusion

In conclusion, quality of life as a construct on its own has been studied quite extensively, with factors such as physical, psychological, social or socio-demographic being found to be determinants of HRQOL (Nvya & Rashmi, 2010). However, most studies on quality of life have identified that the psychological domain was the most affected in women living with HIV and AIDS.

Other studies have identified the physical domain as being the most affected. It is important to note that these studies were not necessarily targeting women as the study sample or psychological distress as one of the main study variables. During the literature review it was discovered that not many studies have been conducted on quality of life and psychological distress, particularly in women, both in recent years and in the more distant past. This posed a challenge during the literature review.

The present study describes and explores psychological distress in relation to quality of life. This particular research topic was not found at all during the literature review. This study further describes and explores psychological distress and quality of life and hoped to highlight the possible relationship between the two constructs.

# CHAPTER 3: RESEARCH METHODOLOGY

## 3.1 INTRODUCTION

This chapter presents the methodology of the study which includes a discussion of the research paradigm, design, method, sample selection, data collection and analysis. Issues around ethical consideration are also discussed.

## 3.2 RESEARCH PARADIGM

Paradigms determine how members of the research community view both the phenomena their particular community studies and the research methodology that should be employed in the study of those particular phenomena (Tuli, 2011). The study adopted a realist stance and positivism as a paradigm, and these underpin the research methodology of the study. The realist position assumes that social reality can be understood from an external point of view (Maree, 2012). Positivism is concerned with true knowledge of explicit phenomena and the relationship between them (Hassard, 1993). It holds a view that the goal of knowledge is simply to describe the phenomena that we experience (Trochim, 2006).

In relation to the study, the phenomena being studied are levels of psychological distress in relation to quality of life in women living with HIV and AIDs, as well as the interrelationship between the two phenomena. Hassard (1993) further argues that every systematic relation discovered between any two phenomena will enable the explanation and foresight into the phenomena, each by means of the other. Positivism's holds realistic or objective ontology (the nature of reality) and empiricist epistemology (the nature of knowledge). Positivist ontology claims an objective, single reality that is studied without the researcher's perspective, and positivist epistemology advocates for the researcher to be detached from the phenomena to be known or studied.

In positivism the aim of the research is to uncover the existing reality in a systematic and objective manner (Sukamolson, 2007). The truth is out there and it is the job of the researcher to uncover that truth (Sakumolson, 2007). In the context of the study the 'reality' was uncovering levels of psychological distress and its relationship to quality of life in women living with HIV and AIDS.

According to positivist ontology there is a single, external and objective reality to any research question regardless of the researcher's belief (Krauss, 2005). The single objective reality in the context of this study is levels of psychological distress in women living with HIV and AIDS and its possible relationship to quality of life.

However, Sukumolson (2007) argues that the positivism paradigm is disputable as the researcher cannot totally detach him- or herself from what is being researched. Often what is studied and the findings produced are influenced by the researcher and the political/social context of the research study. The major flaw of positivism is its claim that the world works according to fixed laws of cause and effect, and this could also limit the study.

The positivism paradigm guided the whole methodology of the present study, which is a quantifiable method. It also informed the design of the study, the methods of collecting, and the instruments for collecting the findings of the study

## 3.3 RESEARCH DESIGN

A traditional research design is a blueprint or detailed plan that is adopted by the researcher to answer questions with validity, objectivity, accurately and economically (Kumar, 2012). Methodology is also a research strategy that translates ontological and epistemological principles into guidelines that show how a research is to be conducted (Tuli, 2011). Based on the nature of the study, which is non-experimental, as well as the aim of the study, which is to explore and describe the study's main variables, the study employed a quantitative approach.

An exploratory-descriptive, non-experimental quantitate approach was employed for the study. The major purpose of non-experimental research is to describe phenomena and explore and explain the relationship between variables. Therefore, the quantitative design in this particular study was suitable for describing and exploring the interrelationship between psychological distress and quality of life. The study design was also informed by the researcher's philosophical perspective, which is a realistic stance and positivist paradigm. Tuli (2011) argues that the selection of research methodology is dependent on the research paradigm that guides the research activity. This research design was applicable to the study because it employs a positivist paradigm. The research methodology applies to the study because the goal of the study was to determine the relationship between two variables, and this is often the goal of quantitative research.

The researcher aimed at adopting an objective stance in studying the variables and their relationship. The chosen research design allowed for the variables and phenomena being researched to be studied objectively. For objectivity to be achieved during the study, quantitative research uses fixed design that organises in advance the research questions and detailed method of data collection and analysis (Kanak, 2013). The WHOQOL HIV BREF and the Kessler Psychological Distress Scale (K10) questionnaires were used in this study to collect and measure in detail quality of life and psychological distress. The researcher chose this approach as assists in facilitating the description and exploration of psychological distress in relation to quality of life in women living with HIV and AIDS.

## 3.4 RESEARCH SETTING

The research was conducted at a regional hospital in the province of KwaZulu-Natal, South Africa. The hospital is one of the largest in KwaZulu-Natal and is located south of Durban at Umlazi township. Umlazi is located 17 kilometres south of Durban’s central business district and has a population of over 550,000 (Maharaj, 2008). The hospital covers a wide catchment area up to and including part of the Eastern Cape. It serves the community at both regional and district levels and has 17 clinics. It is a public health service with free services offered to PLWHA. It offers 12,000 beds and serves a population of approximately two million.

The study was conducted at a gateway-based clinic, which forms part of the hospital. A gateway clinic is a primary health care clinic that is affiliated to a hospital. An estimated number of 1,450 WLWHA attend the clinic. The clinic offers a number of HIV and AIDS services. These include HIV counselling and testing, an elimination of mother-to-child transmission (EMTCT) programme, and ARV treatment to patients who qualify for life-long ART.

The researcher chose this study setting because the regional hospital serves a large and diverse community, one that represents some of the most pressing challenges of living with HIV and AIDS both within the province of KwaZulu-Natal and nationwide. The number of WLWHA attending this facility also afforded the researcher the opportunity to access an acceptable sample size for a quantitative study.

## 3.5 STUDY POPULATION AND SAMPLING

The target population of the study included all women living with HIV and AIDS between the ages of 22 to 35 years attending a Gateway clinic. There were an estimated 350 women living with HIV and AIDS between the ages of 22 and 35 years attending the clinic every month at the study site at the time.

### 3.5.1 Sample inclusion criteria

The selection and inclusion criteria were based on the research objectives and questions. The selection and inclusion criteria included the following:

i. Women who are living with HIV and AIDS (WLWHA).

ii. WLWHA who have been booked in as patients with a gateway-based clinic in the past five years.

iii. WLWHA who are between the ages of 22 and 35. This age range was based on the study's definition of women and also on national statistics for highest prevalence of HIV in women in KZN (South African National AIDS Council, 2012).

### 3.5.2 Sample size

The sample size was based on from the sample sizes of similar studies. In their study of health-related quality of life and psychosocial correlates among HIV-infected adolescent and young adult women in the United States of America (USA), Andrinopoulus et al. (2011) used a sample of 179 females. In a similar study by Rai, Dutta and Gulati (2008), a sample of 90 participants was used. McInerney et al. (2008) used a sample of 149 study participants in their study of HIV-infected individuals receiving antiretroviral therapy in KwaZulu-Natal, South Africa.

The sample size was also be guided by the objectives of the study. Therefore the sample size was 85 women attending the Gateway clinic at the research site. A sample size of 85 women (from a total finite population of 350) produced a two-sided 95% confidence interval with a precision (half-width) of 0.09 or 9% when the actual proportion is near 0.50 or 50% (assumes maximum variability given no prior estimates to factor into the calculation). The study adopted a non-probability convenience method to access WLWHA.

## 3.6 DATA COLLECTION PROCEDURES AND INSTRUMENTS

### 3.6.1 Instruments

Two instruments were used for data collection: the Kessler Psychological Distress Scale (K10) for measuring psychological distress and the WHOQOL HIV BREF tool for measuring quality of life (Appendix eight).

#### *3.6.1.1 The Kessler Psychological Distress Scale (K10)*

"Psychological distress is widely used as an indicator of the mental health of the population in public health" (Drapeau, 2012). The K10 was originally designed for use in epidemiological studies to identify people in the general population who are experiencing non-specific psychological distress (Andersen et al., 2011). The scale was used in this study to evaluate how often respondents experienced anxio-depressive symptoms (e.g. nervousness, sadness, restlessness, hopelessness and worthlessness) over the preceding 30 days. Each item of the K10 is scaled from 0 (none of the time) to 4 (all of the time) and the total score can be used as an index of psychological distress (Drapeau, 2012:1). Scores range between 10 and 50, with four categories, and they are dichotomised into scores greater and equal to 19 and less than 19 for further logistic regression analysis. The four categories are: not clinically significant (10-19), moderate (20-24), high (25-29), and very high (30-50) (Benoit et al., 2013).

#### *3.6.1.2 WHOQOL HIV BREF*

The majority of quality of life instruments have been developed by first-world countries such as the United States and certain European nations, however most people living with HIV and AIDS are from developing countries (Zimpel & Fleck, 2007). The WHOQOL HIV BREF is a cross-cultural and subjective instrument that was initially developed and tested in 15 countries worldwide (O'Connell & Skevington, 2010). The WHOQOL-HIV BREF is based on the WHOQOL-BREF. The tool is specifically designed to measure the construct of health-related quality of life. This contains five extra items specific for PLWHA, and in total contains 31 items" (Friend-du Preez and Peltzer, 2010).

The WHOQOL-HIV BREF is a multidimensional measure that was developed through a unique international collaboration whereby researchers from diverse cultures came together to pool and agree on 'universal' concepts of QOL important to people living with HIV (Zimpel & Fleck, 2007). The 31-item WHOQOL HIV BREF produces six domain scores which denote an individual's subjective perception of their own QOL in the following domains: physical, psychological, level of independence, social relationships, physical environment, and spirituality (Zimpel & Fleck, 2007). The WHOQOL HIV BREF produces six domain scores, which denote an individual's subjective perception of their own QOL (Friend-du Preez & Peltzer, 2010)

### 3.6.2 Validity and reliability of data collection procedures and instruments

Validity is defined as the degree to which the researcher has measured what they had set out to measure, validity also refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration (Kumar, 2012). "Reliability refers to the degree to which the instrument can be depended upon to yield consistent results if used repeatedly over time on the same person or if used by two different investigators" (Brink, 1996:171)

#### *3.6.2.1 The K10 validity and reliability*

WHO has confirmed the validity and reliability of the scale; this confirmation came after clinical studies that confirmed its validity and reliability in developing countries such as India, Burkina Faso and South Africa (Andersen et al., 2011). The Cronbach's alpha was found to be high 0.93 by Kessler and colleagues (Deady, 2009). Data from the Australian National Survey of Mental Health and Wellbeing (NSMHWB) yielded a Cronbach's alpha of 0.92 (Naik et al., 2015).

In a study by Baggely et al. (2007) of detection of depression after pregnancy in women residing in Burkino Faso, the Cronbach's alpha coefficient was 0.87 item correlation when it was assessed using the Pearson product moment statistics. It varied from 0.44 to 0.83 and all correlations were highly significant (P = 0.0005 or lower), indicating satisfactory reliability of all items. In terms of validity, cases had significantly higher K10 scores than non-cases [mean 14.3 (SD = 6.9) and 7.8 (SD = 6.2), respectively (P = 0.0003)].

The Kessler scale was also used by Fassaert et al., (2009) to assess its validity and reliability across ethnic groups in an urban area. The results supported the K10 as a reliable and valid instrument; Cronbach's alpha was high at 0.93. The K10 demonstrated validity and reliability in a study by Hides et al. (2007) of injecting drug users. The purpose of the study was to examine the reliability and validity of the K10 and the patient health questionnaire in a sample of injecting drug users. In this study the tool was found to be reliable and valid for the screening of disorders such as depression, anxiety and psychotic disorders.

The scale was been used in study of women in South Africa; it was validated in a study by Spies et al. (2009) to detect DSM-IV defined mood and anxiety disorders among pregnant women. Translated versions of the scale have been found to have strong psychometric properties (Andersen et al., 2011). Spies et al. (2009) argue that the scale is practical and easy to use, especially for low-resourced contexts at primary health care level, where it can be self-administered or interview administered in only two to three minutes.

The scale derives its validity from its relationship to other measures of related constructs. It was also reported to act as a screening test for anxiety and depressive disorder in community samples (Baillie, 2005). Ballie (2005) asserts that as these are measures of constructs related to psychological distress, the strength of the relationship re-enforces the construct validity of the K10.

#### *3.6.2.2 WHOQOL HIV BREF validity and reliability*

The validity and reliability of the instrument has been confirmed in various studies (for instance Storace at al., 2002; Zimpel & Fleck 2007; Saddki et al., 2009; Carnavaro et al., 2011; Mwemba et al., 2011). According to O'Connell and Skevington (2010), quality of life is a complex construct that cannot be directly measured, however the WHOQOL HIV BREF is an instrument that is able to measure the construct effectively. Domain scores produced by the WHOQOL BREF have been shown to correlate at around 0.9 with the WHOQOL-100 domain scores (Deady, 2009).

The instrument was used by Fang at al. (2002) to assess 136 HIV infected patients. The Cronbach's alpha for internal consistency ranged from 0.74 to 0.85 across domains. Fang et al. (2002) also found that the retest reliability ranged from 0.6 to 0.79 across domains at an average four-week retest interval (Friend-du Preez & Peltzer, 2010). The instrument has also been used in the South African context. In a study by (Friend-du Preez & Peltzer, 2010) of a sample of 612 people living with HIV and AIDS on highly active antiretroviral therapy at three public hospitals in KZN, the overall instrument was found to have a Cronbach alpha of 0.80. The purpose of the study was to investigate the relationship between the current symptom status (no symptoms versus symptoms present) and dimension of health-related quality of life and overall quality of life (poor versus good).

The instrument was also assessed for its psychometric properties in a cross-sectional survey in 23 countries. The Cronbach's alpha was > 0.70 for all domains (Skevington, Lofty & O'Connell, 2003). Construct validity was confirmed in studies from different parts of the world (Sadki et al., 2009; Sexana et al., 2001; Hsiunget al., 2011) thus making the instrument reliable and valid for cross-cultural contexts. Results from most studies indicate good reliability and validity among patients with HIV infection

(Hsiung et al., 2004). Overall studies have concluded that the WHOQOL HIV BREF is a useful quality of life instrument in patients with HIV infection (Fang et al., 2002).

#### *3.6.2.3 Content validity*

Content validity refers to how adequately the sampling reflects its aims and it refers to the instrument's comprehensiveness (Deady, 2009). In this study the research objectives, constructs of the conceptual framework and items as the questionnaire was assessed as per table 3.1 to assess content validity.

**Table 3.1 Confirming the content validity of the tool**

| **Research objectives** | **Construct of conceptual framework** | **Items of the scale, questions** |
|---|---|---|
| To explore and describe the levels of psychological distress among women living with HIV and AIDS. | Personal Self-efficacy | Kessler (K10) Questions 1-10<br>WHOQOL HIV BREF, Domain 2 (Psychological), Q6, Q11, Q15, Q24, Q31 |
| To explore and describe the level of quality of life among women living with HIV and AIDS. | Environment | WHOQOL HIV BREF, Questions 1-31 |
| To explore and describe the interrelationship between psychological distress and quality of life among women living with HIV and AIDS. | Behaviour | Kessler (K10) Questions 1-10<br>WHOQOL HIV BREF, Questions 1-31 |
| Exploring the interrelationship of socio-demographic factors on QOL and psychological distress | Environment | Kessler (K10) Questions 1-10<br>WHOQOL HIV BREF, socio-demographic information, Questions 1-31 |

### 3.6.3 Data collection procedure

The two instruments, the Kessler Psychological Distress Scale (K10) and WHOQOL HIV BREF, were administered to the study participants in the form of a self-report questionnaire (refer to Appendix eight). Participants were recruited during their clinic visit after consultation with a clinician, they were referred to the researcher to be introduced and informed about the study.

A private office was allocated to the researcher to ensure privacy to the study participants during the time of answering the questionnaires. .Each of the instruments was translated into isiZulu, the commonly spoken language in KZN (refer to Appendix eleven). This enabled the study participants to engage with the instrument in their mother tongue and also gave them the freedom to choose to answer the English or isiZulu version of the questionnaire. A research assistance was made available for participants who needed extra assistance with answering the questionnaire, this included those participants who were not able to read or write.

After translation into isiZulu the instrument was translated back into English to assess equivalency and address any inconsistencies during the translation process. A covering letter (Appendix six) letter was attaches to the questionnaire, which explained the research study and guaranteed confidentiality. The remaining part of the letter required consent from the participant to participate in the research study (Appendix seven). The questionnaire took a maximum of 20 minutes to complete. The data collection was done over a period of two months from April 2015 to June 2015.

### 3.6.4 Data analysis

A syntax developed by the World Health Organization's working group was used to calculate each WHOQOL HIV BREF domain. Permission was requested by the researcher and granted by the WHO group to use a syntax file. Data was processed and analysed using IBM Statistical Package for Social Sciences, version 23. Continuous variables were summarised using mean, standard deviation and range (minimum–maximum). When data was skewed medians and interquartile ranges were presented. Box plots were also employed to graphically summarise continuous variables. Categorical data was represented using frequency tables. Standard t-tests were used to identify significant mean differences in continuous explanatory variables by dichotomous outcome classification.

Analysis of variance was used for any relationship between socio-demographic factors on QOL and psychological distress. If the data was not normal then non-parametric equivalents of the t-test and ANOVA, namely the Wilcoxon rank-sum test and Kruskal-Wallis equality-of-populations rank test respectively, were used. Categorical explanatory variables were cross tabulated against participation and significant associations were identified using the standard Pearson's chi-square ($\chi 2$) test.

A Pearson correlation coefficient was used to estimate the strength of relationship between psychological distress and quality of life. If the data was not normally distributed then a non-parametric equivalent correlation technique, namely the Spearman rank correlation coefficient, was used. A p-value of less than 0.05 was deemed statistically significant.

## 3.7 ETHICAL CONSIDERATIONS TO THE STUDY

Ethical approval was obtained from the University of KwaZulu-Natal biomedical research committee (refer to Appendix five). Ethical approval was also obtained from the KwaZulu Natal department of health (Appendix 4) and the facility where the research was conducted (Appendix two). According to Van der Walt and Van Rensburg (2010), researchers are guided by three fundamental ethical principles: respect for persons, beneficence and justice. These three principles were adhered to throughout the research process.

### 3.7.1 Right to privacy

Firstly, because of the sensitive nature of living with HIV and AIDS, the researcher ensured that confidentiality and privacy was maintained throughout the study. According to Roberts and Priest (2010) researchers must undertake to keep all information confidential and secure, and to inform the participants where and how it will be stored, and who will have access to it and how it will be used. The participants were informed verbally and in writing about their right to privacy and confidentiality (refer to Appendix six). This was done by ensuring that all information and data gained in the study was stored and locked away safely. Participants were informed that information gained in the study would be submitted to the school of Nursing and Public Health at the University of KwaZulu-Natal. They were also assured that there would be no mention of their names throughout the study.

### 3.7.2 The principle of respect

Participants participated in the study on a voluntary basis; informed consent was obtained from each of the study participants (refer to Appendix six). They were informed in detail about the purpose of the study in a language that they understand. They were informed verbally and via an information sheet about the research study (refer to Appendix six). They were informed about their right to withdraw from the study at any time, to refuse to share information, and to request further clarification about the study. Participants were not coerced in any form by the researcher to participate in the study. The participants' primary language of isiZulu was also used to communicate with them.

### 3.7.3 The principle of beneficence

The principle of beneficence is about ensuring that participants have a right to protection and should be protected from discomfort and harm, be it physical, emotional, economic, social or legal (Van der Walt & Van Rensburg, 2010). In line with this principle the researcher ensured that research participants were protected from all discomfort and harm throughout the research process.

The researcher sought to establish quality relationships with the participants. Mlongo (2004) states that a quality relationship can be best achieved by the ability to provide care, cultural recognition, warmth, respect and understanding to the participants through the research process. The participants were informed about the study both verbally and in writing and were then invited to participate in the study. The researcher read both the information sheet and the consent form in the primary language of the participants line by line to ensure that they understood the nature of the study (refer Appendix nine).

The researcher also ensured that the participants properly understood the information that they had been given about the study by asking for feedback from the participants. They were also requested to complete a consent form before proceeding to participate in the study. The participants were given a copy of the consent form to take home after they had signed it. The information needed to complete the study was gathered by means of questionnaires (refer to Appendix eight).

## 3.8 CONCLUSION

This chapter presented the methodology of the study. The methodology included a quantitative study design, and a positivist paradigm. The research setting of the study included a gateway clinic which was affiliated to the hospital. Sampling methods were discussed including the data collecting procedures.

Validity and reliability of data collecting procedures and instruments was confirmed. Data analysis was explained in detail and lastly this chapter concludes with ethical considerations of this study which were adhered to throughout the study.

# CHAPTER 4: PRESENTATION OF FINDINGS

## 4.1 INTRODUCTION

This chapter presents an analysis of the data and findings of the study. Data was analysed using the computer programme PASW (predictive analysis software) and collected using two self-report questionnaires, namely the Kessler Psychological Distress Scale (K10) and the WHOQOL HIV BREF. The two questionnaires were administered to 85 women living with HIV and AIDS.

Descriptive statistics and parametric tests were performed to analyse the data in relation to the research objectives and presented in the form of frequency distributions and bar diagrams. The findings are presented as follows: (I) socio-demographic characteristics of the study participants; (ii) level of health-related quality of life; (iii) level of psychological distress; (iv) interrelationship between psychological distress and health-related quality of life; and (v) interrelationship of socio-demographic characteristics on health-related quality of life and psychological distress.

## 4.2 SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE STUDY PARTICIPANTS

The social-demographic characteristics included age, level of education, marital status and employment status. The purpose of this was for the researcher to determine the interrelationship of socio-demographic characteristics on health-related quality of life and psychological distress.

### 4.2.1 Age of the study participants

When the data was grouped there was an equal distribution of participants. In the two age groupings of below 28 years and 29 to 32 years, 35.7% (n = 30). The age group consisting of participants more than 33 years was (28.6%) n = 24. These groups are reflected in Table 4.1.

**Table 4.1 Spread of the age of participant**

| **Age Range** | **n** | **%** |
|---|---|---|
| Below 28 years | 30 | 35.7% |
| 29-32 years | 30 | 35.7% |
| More than 33 years | 24 | 28.6% |
| Total | 84 | 100% |

As reflected in Figure 4.1 the ages of the participants were normally distributed. The average age was 30 years (SD = 3.83). The minimum age was 22 years and the maximum age was 35 years.

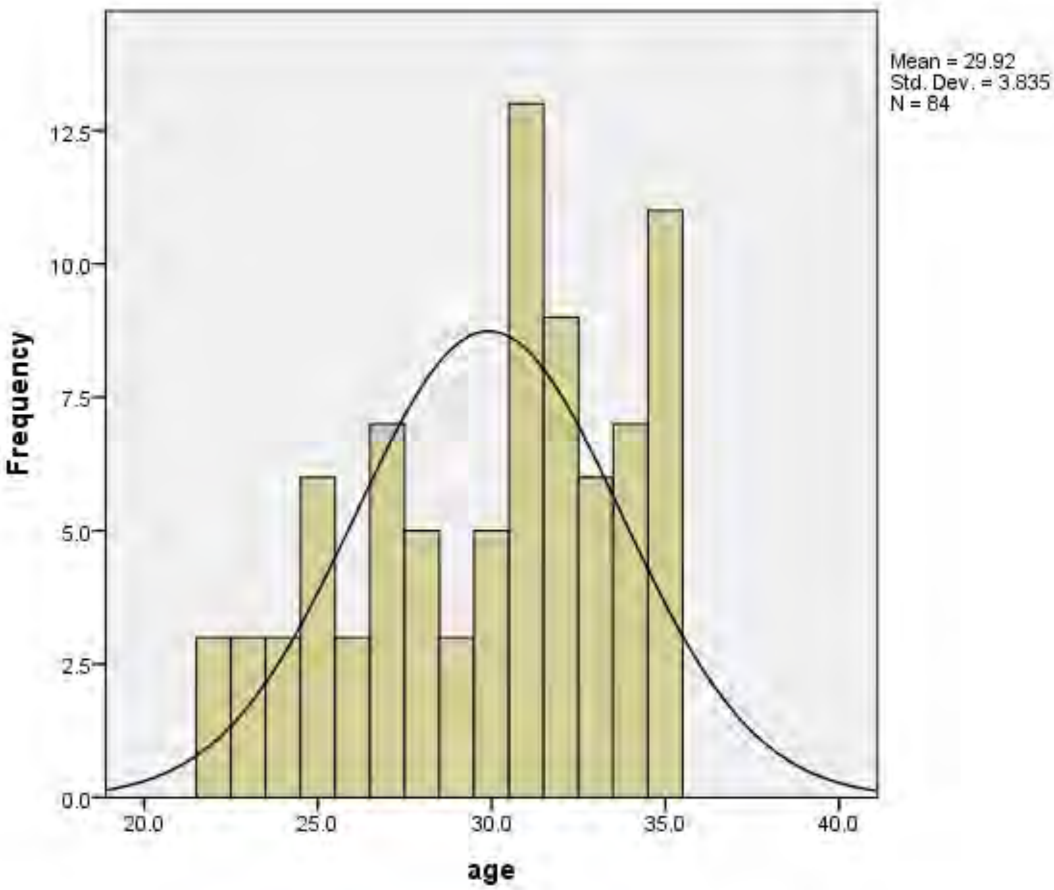

**Figure 4.1 Histogram of age of participants (n = 84)**

### 4.2.2 Level of education of study participants

Analysis of the education variable showed that the majority of the participants, n = 63 (75.9%), had reported secondary school as their highest level of education, followed by n = 16 (19.3%), who reported tertiary education as their highest level of education, and then a small percentage of the sample, n = 4 (4.8%), reported primary school as their highest level of education. These findings are reflected in Figure 4.2.

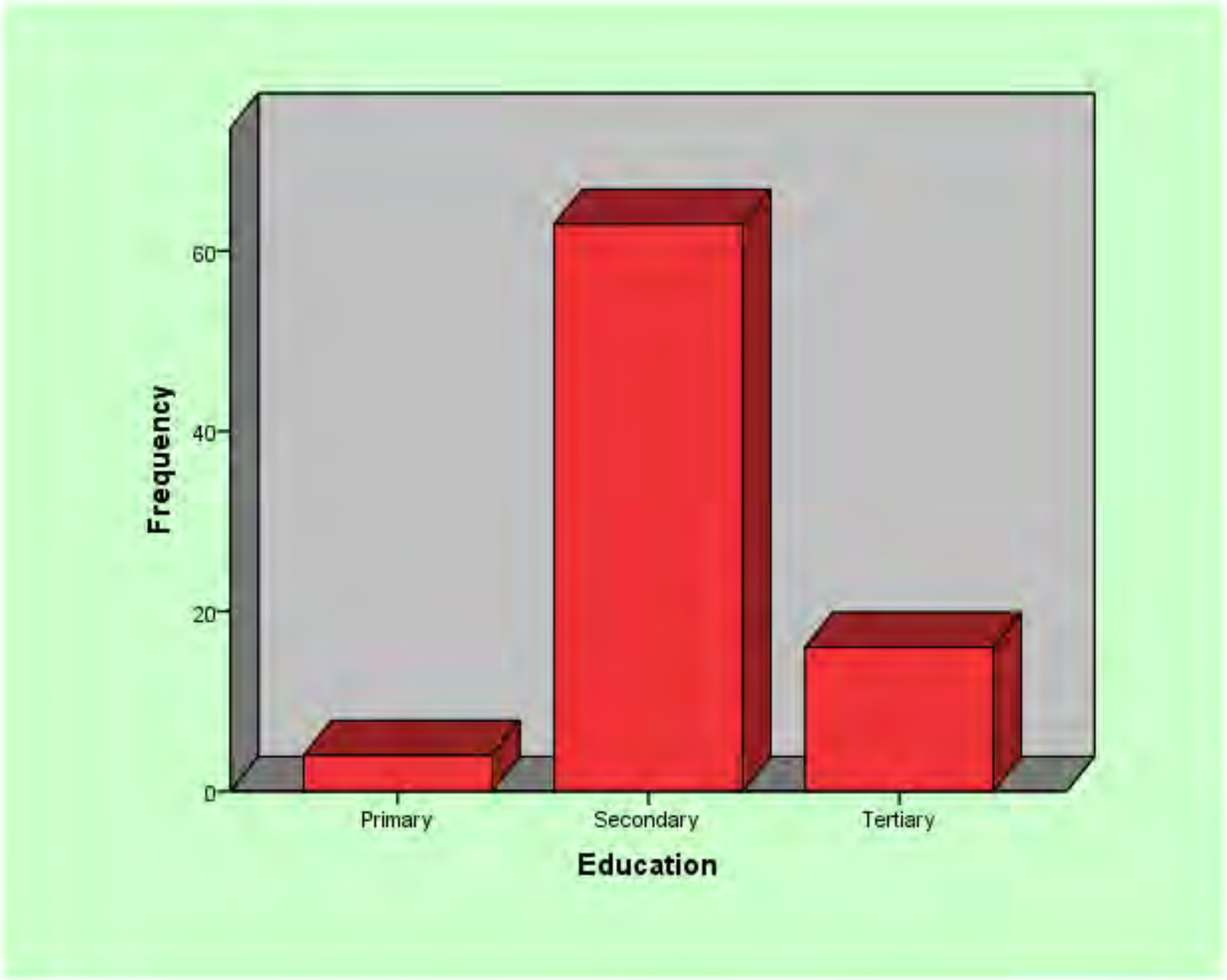

**Figure 4.2 Level of education of study participants (n = 84)**

### 4.2.3 Marital status of study participants

An assessment of the sample's marital status showed that most women, n = 72 (84.7 %), were single. This was followed by n = 7 (8.2%) who were married and n = 6 (7.1%) who were cohabiting. Figure 4.3 displays the marital statuses of the participants.

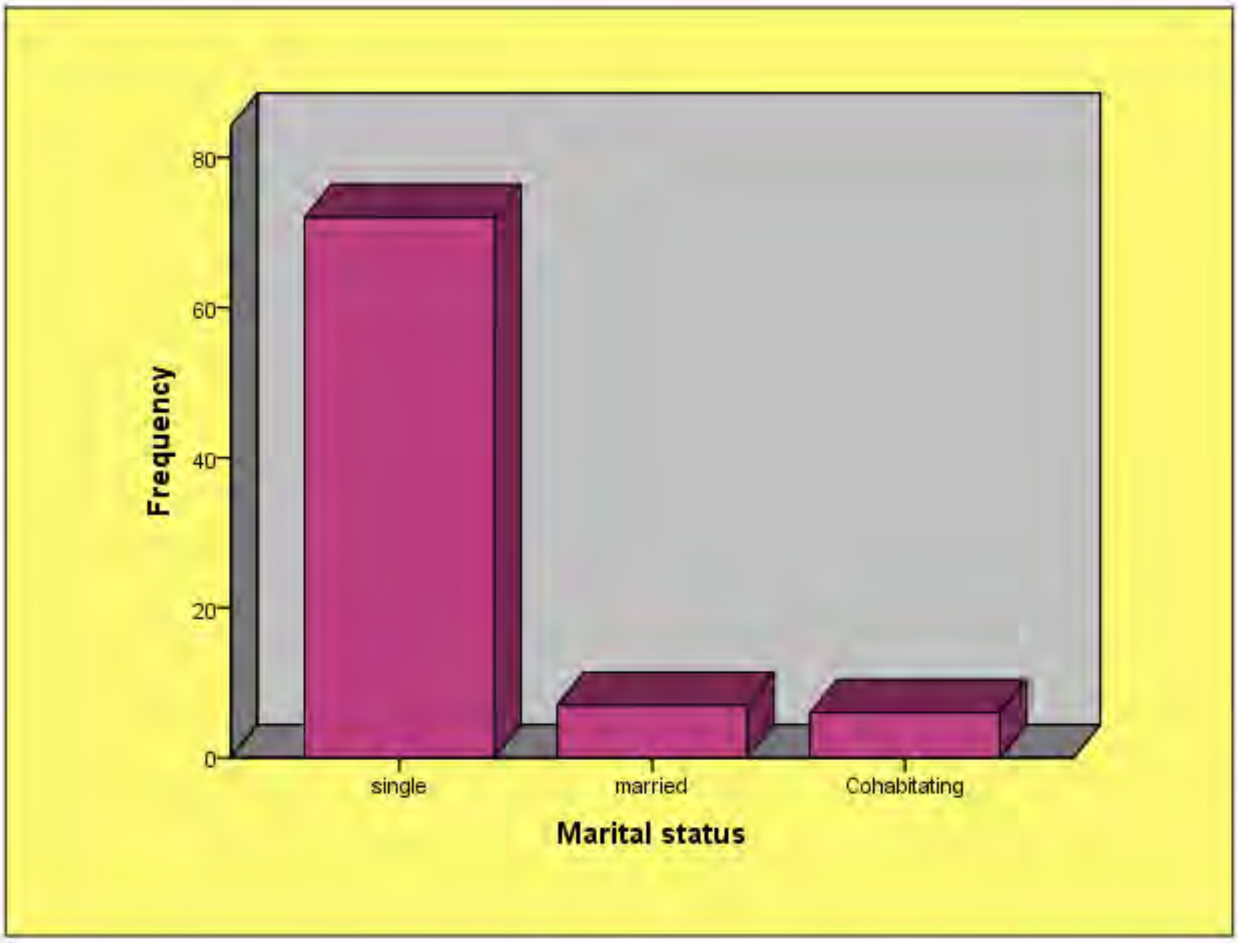

**Figure 4.3 Marital status (n=84)**

### 4.2.4 Source of income

This variable assessed the employment status of the participants and, in the absence of employment, their primary source of income. As reflected in Table 4.2, there was a fairly equal distribution of participants who were both employed and unemployed, with n = 40 (47.1%) employed and n = 45 (52.9%) unemployed.

**Table 4.2 Source of income of study participants (n=85)**

| **Variable** | **n** | **%** |
|---|---|---|
| Employed | 40 | 47.1% |
| Unemployed | 45 | 52.9% |
| Total | 85 | 100% |

The researcher further explored the primary sources of income of the 45 participants who indicated that they were unemployed. Each participant was requested to identify their family's primary breadwinner. The majority, n = 21 (24.7%), of these participants reported family members (which included parents, aunts or siblings) as the primary breadwinners. A participant's partner, either a husband or boyfriend, was only reported by n = 7 (8.2%) participants as the primary breadwinner and a few of the participants reported that a government grant, n = 5 (5.9%), was their primary source of income. Table 4.3 reflects the responses in relation to the different sources of primary income. The remainder of the participants reported that they were employed and did not respond to the primary breadwinner question.

**Table 4.3 Primary breadwinner (n = 85)**

| **Primary Breadwinner** | **n** | **%** |
|---|---|---|
| Family | 21 | 25% |
| Grant | 5 | 5% |
| None | 3 | 4% |
| Partner | 7 | 8% |
| Total | 45 | 52.9% |

## 4.3 HEALTH RELATED QUALITY OF LIFE

Health-related quality of life consisted of six domains, namely physical, psychological, level of independence, social relationships, environment and spiritual or religion or personal beliefs. The scores were generated by the WHO syntax file that automatically checks and recodes data and computer domain scores. A high score suggested higher quality of life functioning in that particular domain. Scores ranged from four (which is the poorest) to 20 (the best).

The health-related quality of life questionnaire, WHOQOL HIV BREF, consists of 31 items. Each of the 31 items belongs to one of the six domains. The psychological domain includes facets such as positive feelings, thinking, learning memory, self-esteem, body image and negative feelings. The level of independence domain includes mobility, activities of daily living, dependence on medication, and work capacity. The social relationships domain includes personal relationships, social support, sexual activity, and social inclusion. The environment domain includes physical safety and security, home environment, financial resources, health and social care, opportunities for acquiring new information and skills, participation in opportunities for recreation/leisure activities, physical environment, and transport. The last domain, spirituality,religion,personal beliefs, includes facets such as forgiveness and blame, concern for the future, death and dying, overall quality of life, and general perceptions.

The health-related quality of life questionnaire is rated on a five point Likert interval scale (O'Connell, 2012). For example, a score of one would indicate negative perceptions and a score of five high, positive perceptions.

As reflected in Table 4.4, the scores reflected good quality of life in all six domains. The highest mean score was found in the physical and social relationship domain, with a score of 16.1 (SD = 3.2) for the physical domain and a score of 16.1 (SD = 2.9) for the social relationships domain. The spirituality/religion/personal beliefs domain had a mean score of 15.3 (SD = 3.3) and was followed closely by the psychological domain with its mean score of 15.8 (SD = 2.7).

The level of independence and environment domains had the lowest means scores of 13.1 (SD = 3.0) and 13.3 (SD = 2.3) respectively. Just over half of the participants, n = 44 (51%), did not respond to all the questions that formed the independence domain. One of the questions requested the participants to indicate how satisfied they were with their capacity for work. All of the employed participants, n = 40 (47.1%), responded to this question while only n = 4 (4.7%) of the unemployed participants responded to the question. The rest of the unemployed participants, n = 40 (47.1%), stated that the question was not applicable to them since they did not have employment.

**Table 4.4: Mean scores for the six domains of health-related quality of life**

| **Health-related quality of life domain** | **n** | **Minimum** | **Maximum** | **Mean** | **Standard Deviation** |
|---|---|---|---|---|---|
| Physical | 85 | 8.00 | 20.00 | 16.1 | 3.2 |
| Psychological | 85 | 8.00 | 20.00 | 15.9 | 2.7 |
| Level of independence | 44 | 6.00 | 19.00 | 13.1 | 3.0 |
| Social relationships | 85 | 7.00 | 20.00 | 16.3 | 2.9 |
| Environment | 85 | 9.00 | 18.50 | 13.3 | 2.3 |
| Spirituality/religion/personal beliefs | 85 | 8.00 | 20.00 | 15.3 | 3.3 |

### 4.3.1 Physical Domain of the WHOQOL HIV BREF

As illustrated in Table 4.5 the majority of the participants, n = 55 (65.5%), indicated that physical pain extremely prevented them from doing what they needed to do, whereas only n = 3 (3.6%) indicated that physical pain did not prevent them at all from doing what they needed to do. In terms of how much they were bothered by physical problems related to HIV infection, half of the participants, n = 24 (50%), indicated that they were extremely bothered, while n = 3 (3.6%) indicated that they were moderately bothered.

In terms of having enough energy for everyday life, n = 39 (45%) of participants indicated that they completely had energy for everyday life, while n = 2 (2.4%) indicated not having energy at all. When reporting on how satisfied they were with sleep, almost half, n = 42 (49.4%), of the participants reported being very satisfied with their sleep while n = 3 (3.5%) of the participants reported being very dissatisfied with their sleep.

**Table 4.5: Responses to the physical domain (n = 85)**

| **The physical domain** | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Items | Not at all | | A little amount | | A moderate amount | | Very much | | An extreme amount | | Total | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| **To what extent do you feel that physical pain prevents you from doing what you need to do?** | 3 | 3.6 | 10 | 11.9 | 7 | 8.3 | 9 | 10.7 | 55 | 65.5 | 85 | 100 |
| **How much are you bothered by any physical problems related to your HIV infection?** | 8 | 9.5 | 17 | 20.2 | 3 | 3.6 | 14 | 16.7 | 42 | 50 | 85 | 100 |
| Items | Not at all | | A little | | Moderately | | Mostly | | Completely | | Total | |
| | n | % | n | % | n | % | n | % | n | % | N | % |
| **Do you have enough energy for everyday life?** | 2 | 2.4 | 4 | 4.7 | 19 | 22.4 | 21 | 24.7 | 39 | 45 | 85 | 100 |
| Items | Very dissatisfied | | Dissatisfied | | Neither satisfied nor dissatisfied | | Satisfied | | Very satisfied | | Total | |
| | n | % | n | % | n | % | n | % | n | % | N | % |
| **How satisfied are you with your sleep?** | 3 | 3.5 | 15 | 17.6 | 8 | 9.4 | 17 | 20 | 42 | 49.4 | 85 | 100 |

### 4.3.2 Psychological Domain of the WHOQOL HIV BREF

Table 4.6 highlights the responses regarding the psychological domain, showing that most of the participants n = 38 (44.7%) indicated that they enjoyed life to the extreme, while n = 2 (2.4%) did not enjoy life at all. In terms of their ability to concentrate, n = 27 (31.8%) participants indicated that they could concentrate very much and n = 3 (3.5%) indicated not being able to concentrate at all. When it came to accepting their bodily appearance, n = 52 (61.2%) indicated that they completely accepted their body appearance and n = 2 (2.4%) only accepted their bodily appearance a little.

When reporting how satisfied they were with who they were, a majority, n=42 (50.0 %), of the participants indicated being very satisfied with themselves while only n = 1 (1.2%) indicated being very dissatisfied with themselves. When indicating how often they felt negative feelings such as blue mood, despair, anxiety and depression, n = 35 (42%) experienced these feelings often and only n = 3(3.6%) indicated never experiencing these feelings.

**Table 4.6: Responses to the psychological domain (n=85)**

| **The Psychological Domain** | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Not at all | | A little | | A moderate amount | | Very much | | An extreme amount | | Total | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| **How much do you enjoy life?** | 2 | 2.4 | 3 | 3.5 | 12 | 14.1 | 30 | 35.3 | 38 | 44.7 | 85 | 100 |
| **How well are you able to concentrate?** | 3 | 3.5 | 9 | 10.6 | 21 | 24.7 | 27 | 31.8 | 25 | 29.4 | 85 | 100 |
| **Are you able to accept your bodily appearance?** | Not at all | | A little | | Moderately | | Mostly | | Completely | | Total | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| | 6 | 7.1 | 2 | 2.4 | 8 | 9.4 | 17 | 20 | 52 | 61.2 | 85 | 100 |
| **How satisfied are you with yourself?** | Very dissatisfied | | Dissatisfied | | Neither satisfied or dissatisfied | | Satisfied | | Very satisfied | | Total | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| | 1 | 1.2 | 7 | 8.3 | 5 | 6.0 | 29 | 34.5 | 42 | 50 | 85 | 100 |
| **How often do you have negative feelings such as blue mood, despair, anxiety, depression?** | Never | | Seldom | | Quite often | | Very often | | Always | | Total | |
| | n | | n | | n | | n | | n | | n | |
| | 3 | 3.6 | 19 | 22.9 | 15 | 18.1 | 35 | 42 | 11 | 13.3 | 85 | 100 |

### 4.3.3 Level of independence domain of the WHOQOL HIV BREF

The level of independence domain responses, as indicated in Table 4.7, are as follows: in terms of their need for medical treatment to function daily, the majority of participants, n = 49 (57.6%), indicated that they did not need medical treatment at all to function daily, while only n = 4 (4.7%) indicated that they needed medical treatment very much to function daily.

When reporting on how well they were able to get around, n = 38 (44.7%) of participants reported that it was good for them get around while n = 7 (8.2%) reported they were getting around poorly. In terms of their ability to perform daily activities, n = 38 (44.7%) of participants indicated that they were very satisfied while only n = 1 (1.2%) indicated that they were very dissatisfied with their ability to perform daily activities. In their responses of how satisfied they were with their capacity to work, n = 14 (31.8%) participants indicated that they were satisfied, whereas n = 10 (22%) indicated that they were dissatisfied.

**Table 4.7 Responses to the level of independence domain (n = 85)**

| **Level of Independence Domain** | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Items | Not at all | | A little | | A moderate amount | | Very much | | An extreme amount | | Total | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| **How much do you need medical treatment to function in your daily life?** | 49 | 57.6 | 23 | 27.1 | 4 | 4.7 | 4 | 4.7 | 5 | 5.9 | 85 | 100 |
| | Very poor | | Poor | | Neither poor nor good | | Good | | Very good | | Total | |
| **How well are you able to get around?** | 9 | 10.6 | 7 | 8.2 | 14 | 16.5 | 38 | 44.7 | 17 | 20 | 85 | 100 |
| **How satisfied are you with your ability to perform daily activities?** | Very dissatisfied | | Dissatisfied | | Neither satisfied nor dissatisfied | | Satisfied | | Very satisfied | | Total | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| | 1 | 1.2 | 12 | 14.1 | 11 | 12.9 | 23 | 27.1 | 38 | 44.7 | 85 | 100 |
| **How satisfied are you with your capacity to work?** | 0 | 0 | 10 | 22.7 | 9 | 20.5 | 14 | 31.8 | 11 | 25.0 | 44 | 100 |

### 4.3.4 Social relationships domain of the WHOQOL HIV BREF

In the social relationships domain, which is illustrated in Table 4.8, the participants' responses were as follows: when reporting to what extent they felt life was meaningful for them, n = 41 (48.2%) indicated that they felt life was very much meaningful while a very small number, n = 5 (5.9%), of the participants felt that life was not meaningful at all.

In terms of satisfaction with their sex life, n = 32 (38.1%) of the participants reported being very satisfied and n = 4 (4.8%) reported being not satisfied at all. In terms of getting support from friends, almost half, n = 41 (49.4%), of the participants indicated that they were satisfied with the support they were receiving from friends but n = 3 (3.6%) reported being very dissatisfied with the support they were receiving from friends. When reporting on how satisfied they were with their personal relationships, n = 39 (46.4%) of the participants reported that they were very satisfied, whereas n = 3 (3.6%) reported that they were very dissatisfied.

**Table 4.8: Responses to the social relationships domain (n = 85)**

| **Social Relationships Domain** | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Items | Not at all | | A little | | A moderate amount | | Very much | | An extreme amount | | Total | |
| | n | % | n | % | n | % | n | % | n | % | N | % |
| **To what extent do you feel your life is meaningful?** | 5 | 5.9 | 4 | 4.7 | 11 | 12.9 | 41 | 48.2 | 24 | 28.2 | 85 | 100 |
| | Very dissatisfied | | Dissatisfied | | Neither satisfied nor dissatisfied | | Satisfied | | Very satisfied | | Total | |
| **How satisfied are you with your sex life?** | 4 | 4.8 | 16 | 19.0 | 9 | 10.7 | 32 | 38.1 | 23 | 27.1 | 85 | 100 |
| **How satisfied are you with the support you receive from friends?** | 3 | 3.6 | 7 | 8.4 | 7 | 8.4 | 25 | 30.1 | 41 | 49.4 | 85 | 100 |
| **How satisfied are you with your personal relationships?** | 3 | 3.6 | 4 | 4.8 | 8 | 9.5 | 30 | 35.7 | 39 | 46.4 | 85 | 100 |

### 4.3.5 Environmental Domain of the WHOQOL HIV BREF

As illustrated in Table 4.9, when describing the environmental domain, n = 35 (41.2%) of the participants indicated that they felt very safe daily while n = 5 (5.9%) said they felt a little safe. In terms of the health of their environment, n = 27 (31.8%) of participants indicated that their environment was very healthy and n = 10 (11.8) indicated that their environment was extremely healthy. The majority of the participants, n = 52 (63.1%), indicated that they did not have enough money to meet their needs at all while n = 2 (2.4%) indicated that they mostly had money to meet their needs.

In terms of availability of information, n = 31 (36.9%) of the participants indicated that the information was completely available to them while n = 2 (2.4%) indicated that information they needed was not at all available to them. When reporting on opportunities for leisure activities, n = 30 (35%) of the participants reported that they had moderate opportunities for leisure activities whereas n = 9 (10.9%) reported that they mostly and completely had opportunities for leisure activities.

In their responses to how satisfied they were with the conditions of their living places, n = 28 (32.9%) of the participants reported being dissatisfied and n = 6 (7.1%) reported being very dissatisfied. In their responses to how satisfied they were with access to health services, n = 42 (38.8%) reported being satisfied while n = 3 (3.5%) reported being dissatisfied with their access to health services. In terms of satisfaction with transport, n = 34 (40%) of the participants indicated being very satisfied and only n = 5 (5.9%) indicated being neither satisfied nor dissatisfied.

**Table 4.9: Responses to the environment domain (n = 85)**

| **Environmental Domain** | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Items | Not at all | | A little | | A moderate amount | | Very much | | Extremely | | Total | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| **How safe do you feel daily?** | 5 | 5.9 | 8 | 9.4 | 14 | 16.5 | 35 | 41.2 | 23 | 27.1 | 85 | |
| **How healthy is your environment?** | Not at all | | A little | | A moderate amount | | Very much | | Extremely | | Total | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| | 11 | 12.9 | 18 | 21.2 | 19 | 22.4 | 27 | 31.8 | 10 | 11.8 | 85 | 100 |
| **Items** | Not at all | | A little | | Moderately | | Mostly | | Completely | | Total | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| **Have you enough money to meet your needs?** | 52 | 63.1 | 16 | 19.0 | 9 | 10.7 | 2 | 2.4 | 4 | 4.8 | 85 | 100 |
| **How available to you is the information you need?** | 2 | 2.4 | 11 | 13.1 | 17 | 20.2 | 23 | 27.4 | 31 | 36.9 | 85 | 100 |
| **To what extent do you have the opportunity for leisure activities?** | 17 | 20.0 | 20 | 23.5 | 30 | 35.3 | 9 | 10.6 | 9 | 10.6 | 85 | 100 |
| | Very dissatisfied | | Dissatisfied | | Neither satisfied nor dissatisfied | | Satisfied | | Very satisfied | | Total | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| **How satisfied are you with the conditions of your living space?** | 6 | 7.1 | 28 | 32.9 | 10 | 11.8 | 21 | 24.7 | 20 | 23.5 | 85 | 100 |
| **How satisfied are you with access to health services?** | 0 | 0 | 3 | 3.5 | 7 | 8.2 | 33 | 38.8 | 42 | 49.4 | 85 | 100 |
| **How satisfied are you with transport?** | 0 | 0 | 13 | 15.3 | 5 | 5.9 | 33 | 38.3 | 34 | 40 | 85 | 100 |

### 4.3.6 Spirituality, religion and personal beliefs domain of the WHOQOL HIV BREF

Table 4.10 illustrates the responses to the spirituality, religion and personal beliefs domain. As can be seen, when reporting the extent to which they found life to be meaningful, n = 41(48%) of the participants found life very much meaningful while n = 5 (5.9%) reported that they did not find life meaningful at all.

In terms of the extent to which participants were bothered by people blaming them for their HIV status, a high proportion, n = 69 (81%), indicated that they were extremely bothered by people blaming them for their HIV status while only n = 3 (3.5%) reported not being bothered at all by people blaming them for their HIV status. When reporting on how they feared for the future, n = 37 (43.5%) reported having an extreme amount of fear for the future and only n = 5 (5.9%) participants reported a little fear for the future. In terms of worry about death, n = 41(48.2%) reported that they were extremely worried about death and only n = 2 (2.4%) of the participants were a little worried about death.

**Table 4.10: Responses to the spirituality, religion, personal beliefs domain (n = 85)**

| **Spirituality, Religion, Personal Beliefs Domain** | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Items | Not at all | | A little | | A moderate amount | | Very much | | An extreme amount | | Total | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| **To what extent do you feel your life is meaningful?** | 5 | 5.9 | 4 | 4.7 | 11 | 12.9 | 41 | 48.2 | 24 | 28.2 | 85 | 100 |
| **To what extent are you bothered by people blaming you for your HIV status?** | 3 | 3.5 | 5 | 5.9 | 4 | 4.7 | 4 | 4.7 | 69 | 81.2 | 85 | 100 |
| **How much do you fear for the future?** | 16 | 18.8 | 18 | 21.2 | 5 | 5.9 | 9 | 10.6 | 37 | 43.5 | 85 | 100 |
| **How much do you worry about death?** | 17 | 20 | 17 | 20 | 2 | 2.4 | 8 | 9.4 | 41 | 48.2 | 85 | 100 |

## 4.4 A DESCRIPTION OF THE LEVEL OF PSYCHOLOGICAL DISTRESS

The Kessler 10 scale evaluates how often respondents experienced anxio-depressive symptoms such as nervousness, sadness, restlessness, hopelessness and worthlessness over the last 30 days. Each item is scaled from 0 (none of the time) to 4 (all of the time) and the total score is used as an index of psychological distress (Drapeau, 2012:1). Scores range between 10 to 50, with four categories, and are dichotomised into scores greater and equal to 19 and less than 19 for further logistic regression analysis. The categories are as follows: not clinically significant (10-19), moderate (20-24), high (25-29), and very high (30-50) (Benoit et al., 2013). The overall mean score for psychological distress was 22 (SD = 7.2).

Table 4.10 illustrates participants’ responses to the 10 items on the Kessler 10 questionnaire. Most of the participants, n = 21 (31.8%), indicated that they felt tired for no good reason a little of the time and only n = 2 (2.4%) of the participants indicted feeling tired for no good reason all of the time. In terms of feeling nervous, n = 24 (38.8%) indicated that they felt nervous none of the time, compared to only n = 1 (1.2%) of the participants who mentioned experiencing this all of the time. More than half of the participants, n = 55 (64.7%), indicated that they did not experience nervousness in such a way that nothing could calm them down, whereas only n = 1 (1.2%) of the participants mentioned experiencing this all of the time.

More than a quarter of the participants, n = 38 (44.7%), of participants indicated feeling hopeless none of the time, and only n = 4 (4.7%) of the participants indicated feeling hopeless all of the time. In terms of feeling restless and fidgety, n = 36 (42.4%) participants indicated that they experienced this none of the time and n = 7 (8.2%) indicated that they experienced this all of the time. Of those participants who reported feeling restless and not able to sit still, n = 38 (45.2%) participants indicated that they experienced this none of the time, and only n = 5 (6.0%) experienced this all the time.

In terms of feelings of depression, n = 26 (36.5%) reported feeling depressed a little of the time and only n = 2 (2.4%) reported feeling depressed all of the time. When reporting on how often they felt everything was an effort, n = 24 (28.2%) of participants reported feeling this none of the time and n = 11 (12.9%) reported feeling everything was an effort all the time. When reporting on how often they felt so sad that nothing could cheer them up, n = 25 (32.9%) reported experiencing this a little of the time, while this was experienced all of the time by only n = 2 (2.4%). Also interestingly a majority of the participants n = 45 (53.6) did not experience feelings of worthlessness, while only n = 4 (4.8%) felt worthless all the time.

**Table 4:11 Responses to the Kessler 10 questionnaire (n = 85)**

| **K 10 scored** | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Items | None of the time | | A little of the time | | Some of the time | | Most of the time | | All of the time | | Total | |
| | n | % | n | % | n | % | n | % | n | % | n | % |
| **During the last 30 days, how often did you feel tired for no good reason?** | 19 | 22.4 | 27 | 31.8 | 21 | 24.7 | 16 | 18.8 | 2 | 2.4 | 85 | 100 |
| **During the last 30, days how often did you feel nervous?** | 33 | 38.8 | 24 | 28.2 | 18 | 21.2 | 9 | 10.6 | 1 | 1.2 | 85 | 100 |
| **During the last 30 days how often did you feel nervous that nothing could calm you down?** | 55 | 64.7 | 16 | 18.8 | 8 | 9.4 | 5 | 5.9 | 1 | 1.2 | 85 | 100 |
| **During the last 30 days, how often did you feel hopeless?** | 38 | 44.7 | 20 | 23.5 | 12 | 14.1 | 11 | 12.9 | 4 | 4.7 | 85 | 100 |
| **During the last 30 days, how often did you feel restless and fidgety?** | 36 | 42.4 | 16 | 18.8 | 13 | 15.3 | 13 | 15.3 | 7 | 8.2 | 85 | 100 |
| **During the last 30 days, about how often did you feel restless that you could not sit still?** | 38 | 45.2 | 11 | 13.1 | 19 | 22.6 | 11 | 13.1 | 5 | 6.0 | 85 | 100 |
| **During the last 30 days, how often did you feel depressed?** | 11 | 12.9 | 31 | 36.5 | 26 | 30.6 | 15 | 17.6 | 2 | 2.4 | 85 | 100 |
| **During the last 30 days, how often did you feel everything was an effort?** | 24 | 28.2 | 20 | 23.5 | 18 | 21.1 | 12 | 14.1 | 11 | 12.9 | 85 | 100 |
| **During the last days, how often did you feel sad that nothing could cheer you up?** | 24 | 28.2 | 28 | 32.9 | 25 | 29.4 | 6 | 7.1 | 2 | 2.4 | 85 | 100 |
| **During the last 30 days, about how often did you feel worthless?** | 45 | 53.6 | 18 | 21.4 | 10 | 11.9 | 7 | 8.3 | 4 | 4.8 | 85 | 100 |

## 4.5 THE INTERRELATIONSHIP BETWEEN PSYCHOLOGICAL DISTRESS AND HEALTH-RELATED QUALITY OF LIFE

A Pearson correlation coefficient was used to estimate the strength of the relationship between psychological distress and health-related quality of life a significant relationship was found in the psychological domain of the WHOQOL BREF and the level of psychological distress with a p-value of $p < 0.006$ and a test value of 2.2. There was a borderline significant relationship with the physical domain, with a *p*-value = 0.051 and a test value of 1.9.

The other domains did not show statistical significances. However, there was a close to borderline statistical significance for the spirituality, religion, personal beliefs domain: the *p*-value was = 0.060, followed by the level of independence domain with a higher *p*-value = 0.072. Table 4.11 shows the interrelationship between psychological distress and the domains of quality of life.

**Tale 4.12. Interrelationship between psychological distress and health-related quality of life**

| **Health-related quality of life and psychological distress (K10)** | **P value** | **T value** |
|---|---|---|
| Physical and K 10 | .051 | 1.686 |
| Psychological and K 10 | .006 | 2.226 |
| Level of independence and K10 | .072 | 1.926 |
| Social relationships and K 10 | .443 | 1.035 |
| Environment and K10 | .212 | 1.286 |
| Spirituality/religion/personal beliefs and K10 | .060 | 1.636 |

## 4.6 THE INTERRELATIONSHIP OF SOCIO-DEMOGRAPHIC CHARACTERISTICS ON HEALTH-RELATED QUALITY OF LIFE

Using the analysis of variance (ANOVA), a significant relationship was found between age and the psychological domain; the *p*–value was < 0.011. There was also borderline significance between education and the psychological domain; the *p*–value = 0.055. This is illustrated in Table 4.12.

**Table 4.13 Interrelationship of socio-demographic characteristics on health-related quality of life**

| | **Physical** | | **Psychological** | | **Level of independence** | | **Social relationships** | | **Environment** | | **Spirituality/ Religion/ Personal beliefs** | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | P value | T value | P value | T value | P value | T value | P value | T value | P value | T value | P value | T value |
| **Age** | .498 | .957 | .011 | 2.339 | .996 | .736 | .407 | 1.060 | .110 | 1.528 | .413 | 1.052 |
| **Education** | .212 | 1.350 | .055 | 1.818 | .278 | 1.288 | .579 | .871 | .931 | .532 | .867 | .560 |
| **Marital status** | .629 | .820 | .241 | 1.284 | .487 | .976 | .508 | .945 | .900 | .582 | .852 | .579 |
| **Employment** | .247 | 1.240 | .738 | .729 | .050 | 2.102 | .734 | .712 | .918 | .555 | .840 | .59 |

## 4.7 INTERRELATIONSHIP BETWEEN DEMOGRAPHIC CHARACTERISTICS AND PSYCHOLOGICAL DISTRESS

No significant relationship was found between demographic characteristics and psychological distress. This finding is illustrated in Table 4.13.

**Table 4.14: The interrelationship of socio-demographic characteristics and psychological distress**

| | **K 10** | |
|---|---|---|
| | **P value** | **T value** |
| **Age** | .353 | 1.119 |
| **Education** | .207 | 1.293 |
| **Marital status** | .240 | 1.245 |
| **Employment** | .655 | .863 |

## 4.8 CONCLUDING REMARKS

In conclusion, the results of the study have indicated very pertinent findings. The study participants had an average age of 29 years and most of them were single. A large proportion reported secondary school to be their highest level of education. More than half of the participants reported being employed and from the unemployed group the most frequently reported breadwinners in the household were family members.

In terms of level of health-related quality of life, the physical and social domains had the highest mean scores. The lowest domain scores were level of independence and environment. In terms of the level of psychological distress, the mean score was 22 (SD = 7.23418), which reflects that a majority of the participants had moderate levels of psychological distress. In terms of the interrelationship between psychological distress and health-related quality of life, the most significant relationship was found in the psychological domain.

In terms of the interrelationship of socio-demographic characteristic on health-related quality of life, there was a significant relationship found between age and the psychological domain; the *p*–value was < 0.011.

There was also borderline significance between education and the psychological domain; the *p*–value = 0.055. In terms of demographic factors and psychological distress, there was no significant relationship between demographic characteristics and psychological distress.

In view of the research objectives, the findings of the study firstly reveal that the women in this study had moderate levels of psychological distress. Secondly they reveal that those women enjoyed high levels of quality of life, which is an indication that the women in this study had a good quality of life. As reflected in the results of the study, there is some interrelationship between psychological distress and health-related quality of life. There is also some interrelationship between socio-demographic factors and health-related quality of life. As previously mentioned, no interrelationship was found between demographic characteristics and psychological distress.

## CHAPTER 5: DISCUSSION, CONCLUSION AND RECOMMENDATION

### 5.1 INTRODUCTION

This chapter analyses the results of the study in light of the empirical findings of related research as well as in relation to the theoretical model, Bandura's framework, which underpins this study. Further, the chapter discusses recommendations emanating from the study's findings and also delineates the limitations of the study.

The first part of the chapter discusses the overall health-related quality of life scores, which were found to be high on all domains. This is then followed by a discussion of the levels of psychological distress scores, which were found to be moderate. Next, a discussion is provided of the results concerning the interrelationship between health-related quality of life and psychological distress, followed by the interrelationship of socio-demographic characteristics to these two study variables. The chapter concludes with recommendations on how to improve nursing education, clinical practices, and nursing management.

### 5.2 THE DOMAINS OF HEALTH RELATED QUALITY OF LIFE

The findings of the study reveal that women living with HIV and AIDS attending a regional hospital within eThekwini district, KwaZulu-Natal had an overall good health-related quality of life. This is shown by the high score of the six domains ranging from 13 to 16. Supporting this finding is the study by Tomita et al. (2014) that reported good quality of life scores in women living with HIV and AIDS in a similar KZN context; Tomita et al. researched a group of 160 women living with HIV and AIDS over a three to six month period and determined the group had good overall health-related quality of life scores. One would assume that the results of Tomita's study would be consistent with this study's results since both studies were conducted in KZN. The high scores in Tomita et al.'s study were associated with a higher education status and found to be the strongest predictor of good overall health-related quality of life.

In this study the physical domain had one of the highest mean scores. In their study of 365 PLWHA, Arjun at al. (2015) also found the physical domain to have the highest mean score. The aim of that study was to measure quality of life and also determine the factors affecting quality of life. The factors found to be associated with high quality of life scores were marital status, age, socio-economic status, high CD4 count, adherence to ART and duration of ART treatment. Furthermore, marital status was determined to be associated with high scores in the physical domain; Arjun et al. argue that support from a spouse has a more significant impact than support from other family members.

In the present study, the high score in the physical domain is also prominent, despite the fact that more than half of the participants indicated challenges with physical pain and other physical problems related to HIV. The ability of the participants to overcome these challenges is consistent with Bandura's theory on self-efficacy, which says that people with high self-efficacy are more likely to view difficult tasks as something to be mastered rather than avoided. Self-efficacy can, in other words, be a mediator between stressful experiences and negative health or wellbeing outcomes, this in return will result in high quality of life, which indicates that the patient will be more capable of coping with illness and other life challenges.

Another of the study's findings is that the social relationship domain delivers the highest mean score. This domain includes personal relationships, social support, sexual activity, and social inclusion. This is a particularly interesting finding, as previous studies – such as those by Iman et al. (2011) and Tran (2012) – have found the opposite, namely low scores in the social relationships domain. The study by Imam et al. included a very similar size sample of 82 participants versus the 85 participants in this present study. Participants in that study were from three non-governmental organisations and one infectious disease hospital. The aim of the study was to determine factors associated with quality of life, and Imam et al. found that the proportion of the participants with low quality of life was highest in the social relationship domain. They argue that low results in the social domain are often to be expected as women living with HIV and AIDS experience challenges such as social isolation, derogation, stigmatisation, discrimination and marginalisation (Imam et al., 2011).

While taking into consideration the social challenges of living with HIV and AIDS that have been mentioned in the literature, the findings of this study still show high scores in the domain of social relationships. The high mean score in this study could well have been influenced by facets of this domain. Half of the participants in this study indicated that they find their lives to be meaningful and are very satisfied with their personal relationships and the support they are receiving from friends. In the study by Imam et al. (2011), knowledge of one's HIV status by friends is also shown to lead to a positive impact on health related quality of life. Although previous studies have not shown direct high mean scores for the social relationship domain, social support has indeed been shown to be positively associated with good quality of life (Vyavaharkar et al., 2012).

The environment and level of independence domains had the lowest mean scores. These results are very similar to those contained in a study by Reis et al. (2012). The purpose of their study was to assess the quality of life of 106 women living with HIV and AIDS, and in that study the environment and independence domain was also found to have the lowest mean score. This particular domain includes the following facets: physical safety and security, home environment, financial resources, health and social care, opportunities for acquiring new information and skills, participation in opportunities for recreation and leisure activities, physical environment, and transport.

In terms of the environment domain, Reis et al. (2012) inferred that facets of the domain in their study could have been influenced by the socio-economic status of the study participants. For instance, lower income was associated with a lower quality of life score (Reis et al., 2012). The results of the study by Reis et al. (2012) are consistent with those of the present study. The majority of the participants in this study were unemployed and also indicated that they did not have enough money to meet their personal needs. Women living with HIV and AIDS often struggle to access certain social and economic resources, a situation that generates negative consequences such as lack of power, even deeper poverty, and a lower quality of life (Reis et al., 2012).

Given that many of the participants in this study were unemployed and depended on their families as their breadwinners this shows that they enjoy very little financial independence. This finding is consistent with Bandura’s theory, where people are viewed as both products and producers of their environment and social system (Schunk & Usher, 2012). The little financial independence among the study participants could be a contributing factor to the low scores in the environment domain.

The level of independence domain had one of the lowest scores in this study. This low score may have been influenced by the fact that that there was a low response rate from the unemployed group in terms of facets of this domain. The level of independence domain comprises the following: mobility, activities of daily living, dependence on medication, and work capacity.

By contrast, none of the literature indicates this domain as having the lowest score. (Reis et al., 2012), for example, found high mean scores in the level of independence domain (in their study this was associated with having a formal income, and the age range of the participants. The low scores in this study were most likely influenced by the poor response rate from the unemployed segment of the study group. This domain clearly requires further exploration in future studies on the topic.

The spirituality, religious, personal beliefs domain showed high and good overall quality of life scores. Some of the facets of the domain had very pertinent results; most of the participants, for instance, reported being extremely bothered by others blaming them for their HIV status, and a fair number also reported being fearful of the future and death. Women living with HIV and AIDS worry that their status may be disclosed to others and that this will lead to dishonour and rejection by friends, family and society in general (Yakhmi et al., 2014). However, besides concerns about stigma and fears concerning the future, the domain still had a high score. Odili et al. (2011) also found high mean scores in the spirituality/religion/personal beliefs domain, arguing that when people are faced with issues that are beyond them they tend to become more spiritual and religious.

In terms of the psychological domain, the overall mean score was high. However, in certain facets of the domain women did report symptoms of depression and anxiety. Depression and anxiety are the most common psychological disorders in PLWHA (Tesfaye & Bune, 2014). In their study of anxiety among 300 PLWHA in a Sub-Saharan Africa HIV clinic, (Olagunju et al., 2012) found there was a high degree of anxiety among PLWHA; it was five times than that of the general population.

The symptoms of depression reflected in this study are also consistent with the study results of (Saadat et al., 2015). The latter study, which involved 200 participants, sought to compare depression, anxiety and stress-related factors among women and men living with HIV and AIDS. The results showed that women are more vulnerable to depression and anxiety, and that living with HIV and AIDS can be stressful. In this present study symptoms of depression and anxiety were further analysed during the assessment of levels of psychological distress.

## 5.3 LEVEL OF PSYCHOLOGICAL DISTRESS

The overall mean score in this study revealed moderate levels of psychological distress among participants. As already mentioned, psychological distress is classified as emotional suffering characterised by depression, anxiety-related symptoms, and somatic symptoms with gender and cross-cultural differences Benoit et al. (2014). Some of these symptoms were noted in this study: a sizable number of participants reported feelings of depression a little of the time, and they also reported somatic symptoms of feeling that everything was an effort. This could explain the moderate levels of psychological distress in participants in this study.

The moderate levels of psychological distress measured in this study are consistent with the findings in the study byBenoit et al. (2014) of psychological distress in women living with HIV and AIDS; Benoit et al. found that a high percentage of their study participants had moderate levels of psychological distress. The latter study investigated demographic and clinical factors correlating with high levels of psychological distress in 337 women living with HIV and AIDS. In Benoit et al.'s study a considerable percentage of participants (42.4%) reported different levels of psychological distress. The highest proportion was 16.9%, with these individuals reporting moderate levels of psychological distress.

The results of the current study indicate that there are high levels of self-efficacy among the study group participants. The study results moreover presented with high health-related quality of life scores in spite of the presence of moderate levels of psychological distress. Self-efficacy has been associated with better psychological adjustment to highly stressful life changes and events, such as living with a chronic illness like HIV and AIDS (Pisanti, 2012). This leads to the next point of understanding: the interrelationship between psychological distress and quality of life.

## 5.4 THE INTERRELATIONSHIP BETWEEN PSYCHOLOGICAL DISTRESS AND HEALTH-RELATED QUALITY OF LIFE

The results of this study show that there is a significant relationship between the psychological domains of health-related quality of life and psychological distress. This relationship could be due to the fact that facets of the psychological distress assessment showed that participants reported feelings of depression and somatic symptoms. The borderline relationship between the physical domain and psychological distress could be due to the somatic symptoms reported by the participants of feeling everything is an effort and some of the physical challenges reported by the participants in the physical domain of health-related quality of life. Kagee and Martin (2010) had similar findings in their study of 85 South African participants attending three HIV clinics in the Western Cape; they found that the symptoms of distress were related to HIV status.

The close borderline relationship between the spiritual, religious, personal beliefs and psychological distress could be related to the challenges of stigma, worry about the future, and fear of death that are mentioned in facets of this domain. In their respective studies (Chaudoir et al., 2012, Tesfaye & Bune, 2014) also assert that stigma could be associated with increased risk of psychological distress, and the challenges of living with stigma can predispose a person to psychological distress.

The results in this study are consistent with those contained in the study of 465 PLWHA by Chaudoir et al. (2012) where it was found that spirituality moderates levels of stigma in PLWHA. They examined whether two coping related factors – proactive coping and spiritual peace – modified the effect of HIV stigma or likelihood of depression. They found that spirituality had a positive impact in terms of the connection between HIV stigma and depression (Chaudoir et al., 2012).

Lastly, the level of independence domain also showed a borderline relationship with psychological distress. As mentioned earlier in the discussion, this could be due to the fact that just fewer than half of the participants were unemployed at the time of the study.

The results in this study are consistent with the study of 465 PLWHA by Chaudoir et al. (2012) where they found that spirituality moderated levels of stigma in PLWHA They examined whether two coping-related factors – proactive coping and spiritual peace – modified the effect of HIV stigma or the likelihood of depression. They found that spirituality had a positive impact on HIV stigma on depression (Chaudoir et al., 2012). Lastly, the level of independence domain also showed a borderline relationship with psychological distress. As mentioned earlier in the discussion, this could be due to the fact that more than half of the participants in this study were unemployed at the time.

## 5.5 THE INTERRELATIONSHIP OF SOCIO-DEMOGRAPHIC CHARACTERISTICS ON HEALTH-RELATED QUALITY OF LIFE AND PSYCHOLOGICAL DISTRESS IN WOMEN LIVING WITH HIV AND AIDS

A significant relationship between age and the psychological domain of health-related quality of life was uncovered in this study. Arjun et al. (2015) also had similar findings; they found a statistical significance between age and the psychological and other domains. In this study, age had statistical significance only in relation to the psychological domain, but not in relation to other domains. It is important to note that all the participants in this study were in their youth, being between the ages of 22 and 35 years old. Imam et al. (2011) also found that age influenced perceptions of overall health-related quality of life.

Vyavaharkar et al. (2012) also found that there was a positive correlation between age and quality of life. Their study was conducted among 399 women living with HIV and AIDS in rural part of the southern United States. The study aimed at examining factors associated with quality of life. The researchers found that as age increases, quality of life scores improve. In a study by Liping at al. (2015), those who are young were found to have better quality of life scores.

From the findings of these studies it appears that age does indeed exert some level of influence on how one perceives their health-related quality of life, particularly the psychological domain. Further studies are however needed to verify this hypothesis.

In this study a significant relationship was also found between education and the psychological domain. In a similar study by Da Silva et al. (2013), a significant association between lower levels of education and psychological domain was uncovered in their test group. The study examined quality of life in 85 individuals living with HIV and AIDS in the city of Sao Jose in Brazil. Da Silva et al. (2013) were able to infer that a low level of education can directly influence quality of life.

Supporting this finding from the opposite angle is the study by Vyavaharkar et al. (2012), which found that having a higher education is associated with better health-related quality of life, especially in women. In this present study a majority of the study participants had completed secondary education and were unemployed. This could explain the significant relationship between education and the psychological domain. Additional studies need to be done to further establish this relationship.

## 5.6 RECOMMENDATIONS

### 5.6.1 Recommendations

In line with the study findings, the following recommendations are made for nursing education, practice, nursing management and research.

### 5.6.2 Recommendations for nursing education

The nursing education curriculum needs to integrate a module that equips nurses with the necessary knowledge and practical skills to care for the mental health and psychosocial needs of women living with HIV and AIDS. The curriculum should also include value clarification and self-awareness of the nurses' own mental and psychosocial health. This will assist nurses in reflecting on their own values and attitudes towards the mental health and psychosocial needs of women living with HIV and AIDS and so equip them to offer empathic care to their patients.

### 5.6.3 Recommendations for clinical practice

Clinical practitioners need to approach HIV and AIDS care holistically, as it is not just a clinical disease but also a social one. This framework of thinking should inform all consultations with women living with HIV and AIDS. The clinical practice needs to start integrating skills that help care for the mental health and psychosocial needs of women living with HIV and AIDS. These skills include working together with and harnessing the skills of a multi-disciplinary team of psychologist, social workers and community health workers, implementing and adhering to a correct and prompt referral system, and helping to mobilise the community.

### 5.6.4 Recommendations for nursing management

Management needs to lead by example. The nursing management will be responsible for creating a culture that fosters and promotes the care of the mental health and psychosocial needs of women living with HIV and AIDS. Efforts should be made to assist nurses to always implement policy at ground level. This included continuous training and mentorship and training of nurses on mental health and psychosocial aspects of living with HIV and AIDS. Systems should be put in place that includes monitoring and evaluation of the progress of implementation of these interventions.

### 5.6.5 Recommendations for further research

Further research is needed to further investigate the relationship between the psychological health-related quality of life domain and the demographic characteristics of age and education in women living with HIV and AIDS. This study had a significant finding that deviated from the norm portrayed in the literature, namely that of the social domain having the highest score. This finding requires further research in the future.

## 5.7 LIMITATIONS OF THE STUDY

Data was collected through a self-reported method which may be subjective to personal or subjective bias. The results are from one of the eleven health districts in KZN and are thus not representative of all women. However, to minimize these limitations the researcher chose questionnaires that were simple to answer and gave the participants various options when answering the questionnaires. The questionnaires were also translated into IsiZulu which is the local language and mother tongue of the study participants. The researcher chose a research site that was from a district with the highest prevalence of HIV in all the 11 districts and age group of the study participants was representative of the highest prevalence of HIV in KZN.

## 5.8 CONCLUSION

It is felt that the study's results suggest there is reason for hope regarding the quality of life of WLWHA. This is said because despite the challenges of moderate psychological distress faced by these women, the results inform us that they are also resilient and are able to achieve good health-related quality of life. At the same time, one cannot and should not ignore the finer findings that there is some level of psychological distress among these women and that there is responsibility upon the public health system to implement interventions to ensure that women receive the relevant care.

The significant and ground-breaking progress that has been made in the symptomatic management of HIV and AIDS through the presence and advancement of ART, which has transformed HIV and AIDS into a manageable chronic illness, is proof that with determined and united efforts it is possible to save and improve the lives of PLWHA. What needs to now follow is another ground-breaking step in the story: improving the mental health-related quality of life of women living with HIV and AIDS

## APPENDIX ONE: LETTER TO RESEARCH SITE

Makhosazana Simelane
Ground Floor
George Campbell Building
Howard College Campus
University of KwaZulu-Natal
Durban, 4041
Tel: 079 528 1501
khosimcwh@vodamail.co.za
991240329@stu.ukzn.ac.za
30 June 2014

Nursing Services Manager

23 July 2014

Re: Research Study: Exploring and describing levels of psychological distress in relation to health-related quality of life in women living with HIV and AIDS attending a regional hospital within eThekwini district

Dear …….

I am currently undertaking a Master's degree in maternal, child and women's health at the University of KwaZulu-Natal. As part of my degree I am required to submit a research project.

The study I have selected is exploring and describing levels of psychological distress in relation to quality of life in women living with HIV and AIDS who are attending your hospital. I am writing to you to seek your permission to gain access to participants who are attending your ARV clinic and also permission to administer questionnaires to the participants in relation to the study topic.

Although psychosocial issues in relation to women living with HIV and AIDS are not an uncommon phenomena, to date a little research has been carried out on psychological distress in relation to quality of life in women living with HIV and AIDS. The researcher hopes that the findings of this study will have important implications for nursing science by making a significant contribution towards nursing practice, nursing education and nursing research.

The study would involve a sample of 85 women living with HIV and AIDS attending your ARV clinic. The participants will be informed of the study both verbally and in writing and be invited to participate in the study. They will also be requested to complete a consent form before proceeding to participate in the study. All the participants will maintain the right to withdraw from the study at any time without penalty. The information needed to complete the study will be gathered by means of questionnaires, a copy of which you will find enclosed. The questionnaire will consist of scales designed to measure health-related quality of life and psychological distress in women living with HIV and AIDS.

The questionnaire should take a maximum of 20 minutes to complete. All ethical issues will be considered and addressed during and after the study. Anonymity and confidentiality will be protected at all times. Participants will not be requested to disclose their names in the study. All information and data gained in the study shall be transcribed and stored securely (locked away) to ensure confidentiality. There will be no mention of the name of your organisation during and after the study.

The study has had ethics approval from the School of Nursing and Public Health as well as the University of KwaZulu-Natal’s Research Ethics Committee. Enclosed please find a copy of the research proposal for your consideration.

Thank you for taking the time to read this letter. If you have any queries or would like to discuss this matter further before making a decision, please do not hesitate to contact me at the above address or telephone number.

Yours sincerely

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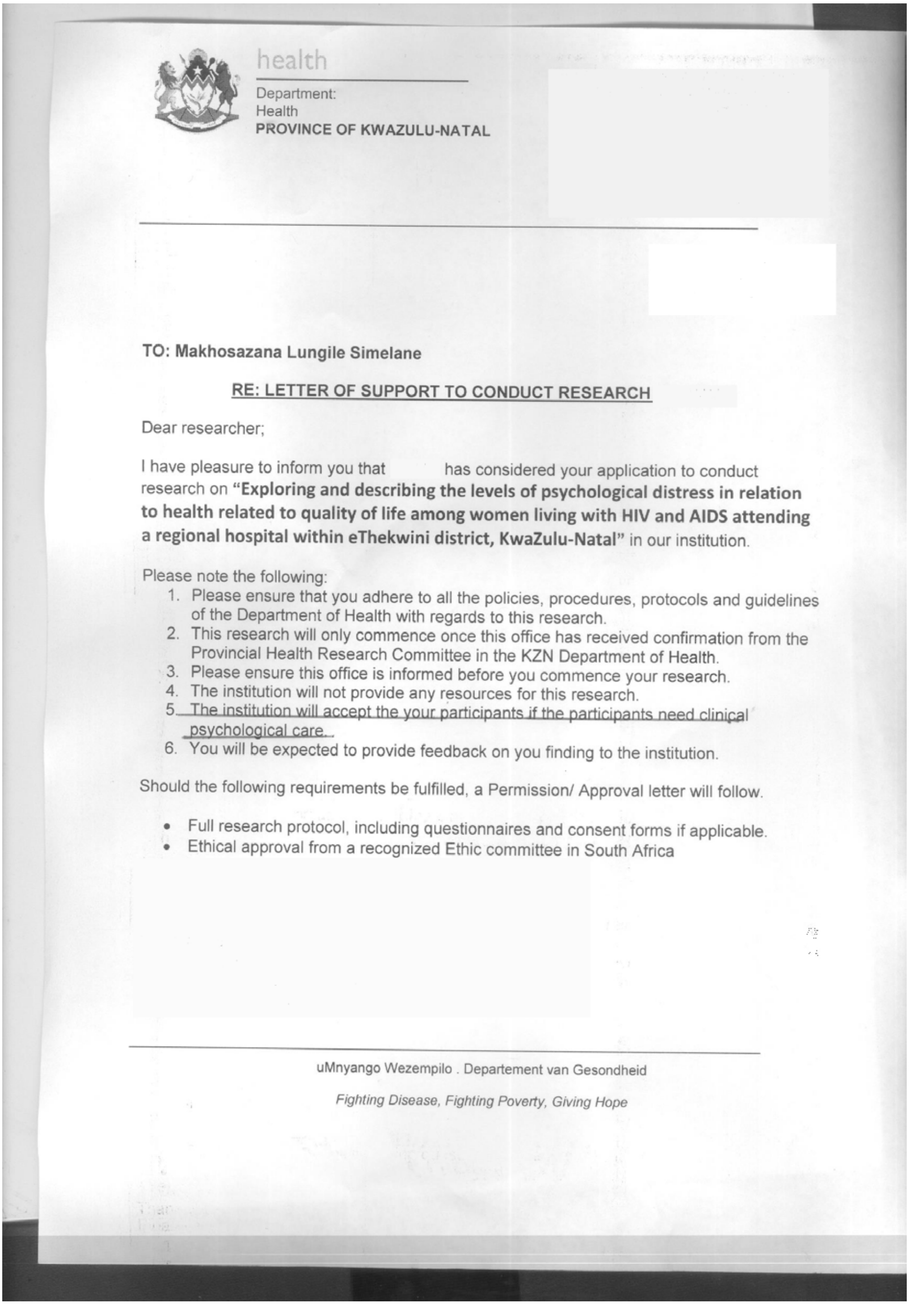
## APPENDIX TWO: STUDY APPROVAL FROM RESEARCH SITE



health

Department:
Health
**PROVINCE OF KWAZULU-NATAL**

[redacted]

[redacted]

**TO: Makhosazana Lungile Simelane**

**RE: LETTER OF SUPPORT TO CONDUCT RESEARCH**

Dear researcher;

I have pleasure to inform you that [redacted] has considered your application to conduct research on **"Exploring and describing the levels of psychological distress in relation to health related to quality of life among women living with HIV and AIDS attending a regional hospital within eThekwini district, KwaZulu-Natal"** in our institution.

Please note the following:

1. Please ensure that you adhere to all the policies, procedures, protocols and guidelines of the Department of Health with regards to this research.
2. This research will only commence once this office has received confirmation from the Provincial Health Research Committee in the KZN Department of Health.
3. Please ensure this office is informed before you commence your research.
4. The institution will not provide any resources for this research.
5. The institution will accept the your participants if the participants need clinical psychological care.
6. You will be expected to provide feedback on you finding to the institution.

Should the following requirements be fulfilled, a Permission/ Approval letter will follow.

- Full research protocol, including questionnaires and consent forms if applicable.
- Ethical approval from a recognized Ethic committee in South Africa

[redacted]

uMnyango Wezempilo . Departement van Gesondheid

*Fighting Disease, Fighting Poverty, Giving Hope*

## APPENDIX THREE: LETTER TO HOSPITAL RESEARCH ETHICS COMMITEE

Makhosazana Simelane
Ground Floor,
George Campbell Building
Howard College Campus
University of KwaZulu-Natal
Durban, 4041
Tel: 079 528 1501
khosimcwh@vodamail.co.za
991240329@stu.ukzn.ac.za
23 July 2014

Research Ethics Committee
University of KwaZulu-Natal

23 July 2014

Re: Research Study: Exploring and describing levels of psychological distress in relation to health-related quality of life in women living with HIV and AIDS attending a regional hospital within eThekwini district.

Dear Sir/Madam

I am currently undertaking a Master's degree in maternal, child and women's health at the University of KwaZulu-Natal. As part of my degree I am required to submit a research project.

The study I have selected is exploring and the levels of psychological distress in relation to quality of life in women living with HIV and AIDS who are attending a clinic within eThekwini. I am writing to you to seek your permission and approval to conduct the proposed study through your review of ethical considerations.

Although psychosocial issues in relation to women living with HIV and AIDS are not an uncommon phenomena, to date little research has been carried out on psychological distress in relation to quality of life in women living with HIV and AIDS. The researcher hopes that the findings of this study will have important implications in nursing science by making a significant contribution towards nursing practice, nursing education and nursing research.

The study would involve a sample of 85 women living with HIV and AIDS attending a regional hospital within the eThekwini district. Participants will be informed about the study and its purpose. Permission from the participants to participate in the study will be gained through informed consent, which will be both verbal and in writing. Participants willing to take part in the study will be required to read and fill out the consent form. The participants will maintain the right to withdraw from the study at any time without penalty. The information needed to complete the study will be gathered by means of a questionnaire, a copy of which you will find enclosed. The questionnaire will consist of scales designed to measure health-related quality of life and psychological distress in women living with HIV and AIDS.

The questionnaire should take a maximum of 20 minutes to complete. All ethical issues will be considered and addressed during and after the study. Anonymity and confidentiality will be protected at all times. Participants will not be requested to disclose their names in the study. All information and data gained in the study shall be transcribed and stored securely (locked away) to ensure confidentiality. Participants will also be informed about the above ethical considerations both verbally and in writing.

Enclosed please find a copy of the research proposal for your consideration. Any recommendations or suggestions will be considered and acknowledged.

Thank you for taking the time to read this letter. If you have any queries or would like to discuss this matter further, please do not hesitate to contact me at the above address or telephone number.

Yours sincerely

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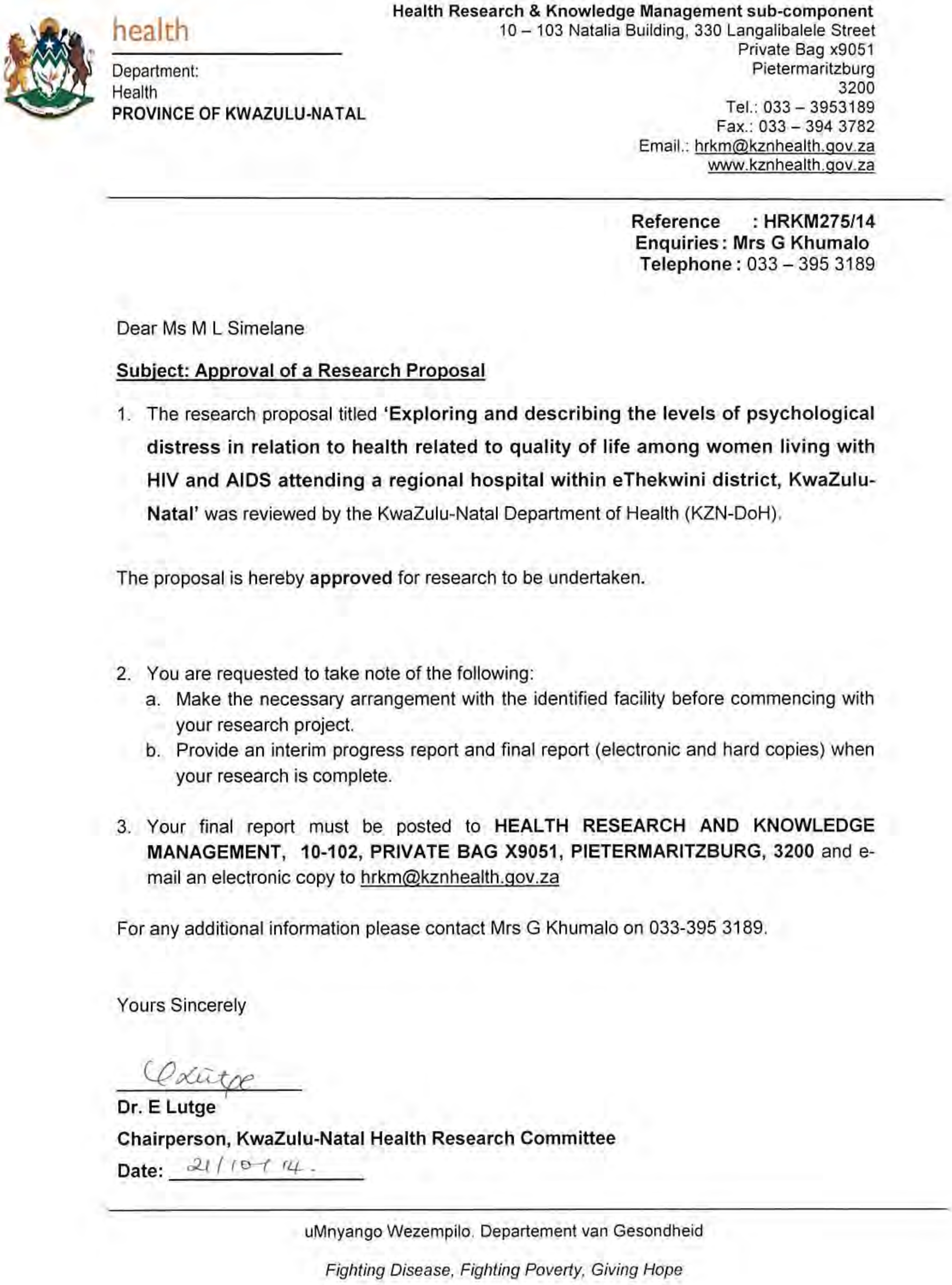
## APPENDIX FOUR: APPROVAL FROM HOSPITAL RESEARCH ETHICS COMMITTEE



health
Department:
Health
PROVINCE OF KWAZULU-NATAL

**Health Research & Knowledge Management sub-component**
10 – 103 Natalia Building, 330 Langalibalele Street
Private Bag x9051
Pietermaritzburg
3200
Tel.: 033 – 3953189
Fax.: 033 – 394 3782
Email.: hrkm@kznhealth.gov.za
www.kznhealth.gov.za

**Reference : HRKM275/14**
**Enquiries : Mrs G Khumalo**
**Telephone :** 033 – 395 3189

Dear Ms M L Simelane

**Subject: Approval of a Research Proposal**

1. The research proposal titled **'Exploring and describing the levels of psychological distress in relation to health related to quality of life among women living with HIV and AIDS attending a regional hospital within eThekwini district, KwaZulu-Natal'** was reviewed by the KwaZulu-Natal Department of Health (KZN-DoH).

The proposal is hereby **approved** for research to be undertaken.

2. You are requested to take note of the following:
    a. Make the necessary arrangement with the identified facility before commencing with your research project.
    b. Provide an interim progress report and final report (electronic and hard copies) when your research is complete.

3. Your final report must be posted to **HEALTH RESEARCH AND KNOWLEDGE MANAGEMENT, 10-102, PRIVATE BAG X9051, PIETERMARITZBURG, 3200** and e-mail an electronic copy to hrkm@kznhealth.gov.za

For any additional information please contact Mrs G Khumalo on 033-395 3189.

Yours Sincerely

Elutge

**Dr. E Lutge**
**Chairperson, KwaZulu-Natal Health Research Committee**
**Date:** 21/10/14.

uMnyango Wezempilo. Departement van Gesondheid

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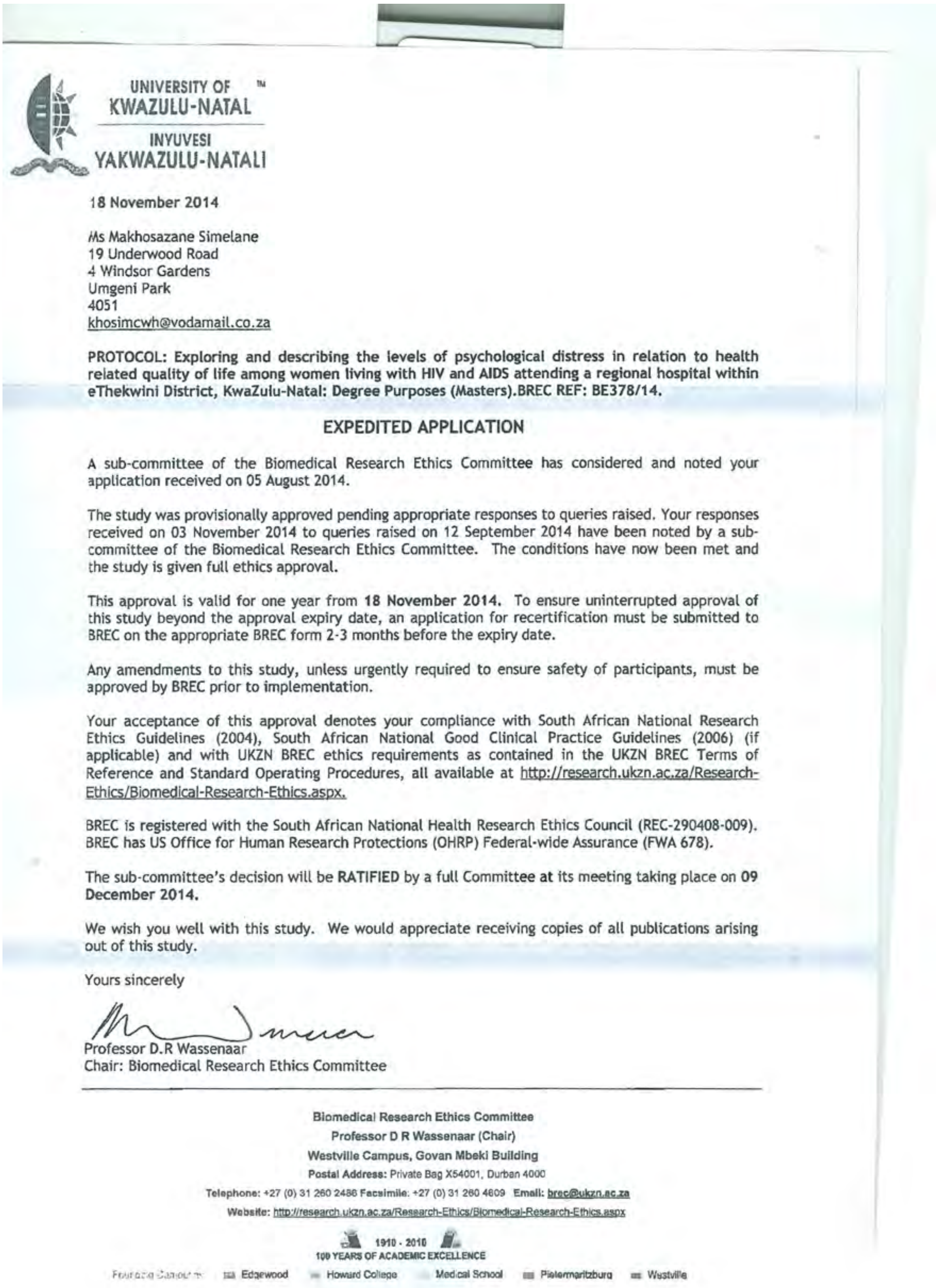
# APPENDIX FIVE: APPROVAL FROM THE BIOEMEDICAL RESEARCH ETHICS COMMITTEE AT THE UNIVERSITY OF KWAZULU-NATAL



UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

18 November 2014

Ms Makhosazane Simelane
19 Underwood Road
4 Windsor Gardens
Umgeni Park
4051
khosimcwh@vodamail.co.za

**PROTOCOL: Exploring and describing the levels of psychological distress in relation to health related quality of life among women living with HIV and AIDS attending a regional hospital within eThekwini District, KwaZulu-Natal: Degree Purposes (Masters).BREC REF: BE378/14.**

**EXPEDITED APPLICATION**

A sub-committee of the Biomedical Research Ethics Committee has considered and noted your application received on 05 August 2014.

The study was provisionally approved pending appropriate responses to queries raised. Your responses received on 03 November 2014 to queries raised on 12 September 2014 have been noted by a sub-committee of the Biomedical Research Ethics Committee. The conditions have now been met and the study is given full ethics approval.

This approval is valid for one year from **18 November 2014.** To ensure uninterrupted approval of this study beyond the approval expiry date, an application for recertification must be submitted to BREC on the appropriate BREC form 2-3 months before the expiry date.

Any amendments to this study, unless urgently required to ensure safety of participants, must be approved by BREC prior to implementation.

Your acceptance of this approval denotes your compliance with South African National Research Ethics Guidelines (2004), South African National Good Clinical Practice Guidelines (2006) (if applicable) and with UKZN BREC ethics requirements as contained in the UKZN BREC Terms of Reference and Standard Operating Procedures, all available at http://research.ukzn.ac.za/Research-Ethics/Biomedical-Research-Ethics.aspx.

BREC is registered with the South African National Health Research Ethics Council (REC-290408-009). BREC has US Office for Human Research Protections (OHRP) Federal-wide Assurance (FWA 678).

The sub-committee's decision will be **RATIFIED** by a full Committee at its meeting taking place on **09 December 2014.**

We wish you well with this study. We would appreciate receiving copies of all publications arising out of this study.

Yours sincerely

Professor D.R Wassenaar
Chair: Biomedical Research Ethics Committee

**Biomedical Research Ethics Committee**
**Professor D R Wassenaar (Chair)**
**Westville Campus, Govan Mbeki Building**
**Postal Address:** Private Bag X54001, Durban 4000
**Telephone:** +27 (0) 31 260 2486 **Facsimile:** +27 (0) 31 260 4609 **Email:** brec@ukzn.ac.za
**Website:** http://research.ukzn.ac.za/Research-Ethics/Biomedical-Research-Ethics.aspx

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## APPENDIX SIX: INFORMATION SHEET AND CONSENT TO PARTICIPATE IN RESEARCH

Date: 23 July 2014

Greetings Madam

My name is Khosi Simelane, from the School of Nursing and Public Health based at the University of KwaZulu-Natal. My contact details are: 079 5281501 (cell number) and 991240329@stu.ukzn.ac.za (email).

You are being invited to consider participating in a study that involves research that will explore and describe the levels of psychological distress in relation to quality of life in women living with HIV and AIDS. The aim of the study is to inquire into and explain mental distress in relation to the quality of your life as a woman living with HIV and AIDS. The study is expected to enrol 204 women in total. There will be no risks involved. Although the study will have no direct benefits to you, the study hopes to make a contribution to society by gaining more information that will assist health workers in offering improved health care services for women living with HIV and AIDS.

So as to respect your privacy and confidentiality you are not required to disclose your name during the study. All information and data gained in the study shall be transcribed, stored and securely locked away to ensure confidentiality. Information in the study will be submitted to the School of Nursing and Public Health at the University of KwaZulu-Natal, however, there will be no mention of your name either during or after the study. There are no risks to participating in this study, and you have a right to withdraw from the study at any time without penalty.

You will be given a questionnaire which should take a maximum of 20 minutes to complete. There will be no costs incurred by your participation in the study. If you have any queries or would like to discuss this matter further before making a decision, please do not hesitate to ask me for more clarity or contact me at the above address or telephone number.

In the event of any problems or concerns/questions you may contact the researcher at 079 5281501 (cell number), 991240329@stu.ukzn.ac.za (email) or the UKZN Biomedical Research Ethics Committee, contact details as follows:

**BIOMEDICAL RESEARCH ETHICS ADMINISTRATION**
**Research Office, Westville Campus**
**Govan Mbeki Building**
University of KwaZulu-Natal
Private Bag X 54001
Durban
4000
KwaZulu-Natal, SOUTH AFRICA
Tel: 27 31 2602486
Fax: 27 31 2604609
Email: BREC@ukzn.ac.za

## APPENDIX SEVEN: CONSENT FORM

I ________________________________________________ have been informed about the research study that will explore and describe levels of psychological distress in relation to quality of life in women living with HIV and AIDS by Khosi Simelane. I understand that the purpose of the study is to inquire into and explain mental distress in relation to the quality of my life as a woman living with HIV and AIDS.

I have been given an opportunity to answer questions about the study and have had answers to my satisfaction. I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any treatment or care that I would usually be entitled to.

If I have any further questions/concerns or queries related to the study I understand that I may contact the researcher at 079 5281501 (cell number) or 991240329@stu.ukzn.ac.za (mail). If I have any questions or concerns about my rights as a study participant, or if I am concerned about an aspect of the study or the researcher, then I may contact:

**BIOMEDICAL RESEARCH ETHICS ADMINISTRATION**
**Research Office, Westville Campus**
**Govan Mbeki Building**
University of KwaZulu-Natal
Private Bag X 54001
Durban
4000
KwaZulu-Natal, SOUTH AFRICA
Tel: 27 31 2602486
Fax: 27 31 2604609
Email: BREC@ukzn.ac.za

____________________ ____________________

**Signature of Participant** **Date**

____________________ ____________________

**Signature of Witness** **Date**

**(Where applicable)**

## APPENDIX EIGHT: STUDY QUESTIONNAIRE

1. Health-related quality of life

About you

Before you begin we would like to ask you to answer a few general questions about yourself: by circling the correct answer or by filling in the space provided.

What is your **gender?** Male / Female
How old are you? (Age in years)
What is the highest **education** you received? None at all / Primary / Secondary / Tertiary
What is your **marital status**? Single / married / living as married / Separated / Divorced / Widowed
How is your **health**? Very poor / Poor / Neither poor nor good / Very good
Are you **employed**? Yes / No
If not employed, who is the **breadwinner** at home?
Do you consider yourself currently ill? Yes / No

In what year did you first **test positive** for HIV? --------------------------------
In what year do you think you were infected?
How do you believe you were **infected with HIV**? (Circle one only):
Sex with a man / Sex with a woman / Injecting drugs / Blood products / Other (specify) _

**Instructions**

This assessment asks how you feel about your quality of life, health, and other areas of your life.

**Please answer all the questions.**

If you are unsure about which response to give to a question, please choose the one that appears most appropriate. This can often be your first response.

Please keep in mind your standards, hopes, pleasures and concerns.

We ask that you think about your life in the last two weeks.

For example, thinking about the last two weeks, a question might ask:

| How well are you able to concentrate? | | | | |
|---|---|---|---|---|
| Not at all | A little | A moderate amount | Very much | Extremely |
| 1 | 2 | 3 | 4 | 5 |

You should circle the number that best fits how well you are able to concentrate over the last two weeks.

So you would circle the number 4 if you were able to concentrate very much.
You would circle number 1 if you were not able to concentrate at all in the last two weeks.

**Please read each question, assess your feelings, and circle the number on the scale for each question that gives the best answer for you.**

| **1. How would you rate your quality of life?** | | | | |
|---|---|---|---|---|
| Very poor | Poor | Neither poor or good | Good | Very good |
| 1 | 2 | 3 | 4 | 5 |

| **2. How satisfied are you with your health?** | | | | |
|---|---|---|---|---|
| Very dissatisfied | Dissatisfied | Neither satisfied nor dissatisfied | Satisfied | Very satisfied |
| 1 | 2 | 3 | 4 | 5 |

The following questions ask about **how much** you have experienced certain things in the last two weeks.

| **3. To what extent do you feel that physical pain prevents you from doing what you need to do?** | | | | |
|---|---|---|---|---|
| Not at all | A little | A moderate amount | Very much | An extreme amount |
| 1 | 2 | 3 | 4 | 5 |

| **4. How much are you bothered by any physical problems related to your HIV infection?** | | | | |
|---|---|---|---|---|
| Not at all | A little | A moderate amount | Very much | An extreme amount |
| 1 | 2 | 3 | 4 | 5 |

| **5. How much do you need any medical treatment to function in your daily life?** | | | | |
|---|---|---|---|---|
| Not at all | A little | A moderate amount | Very much | An extreme amount |
| 1 | 2 | 3 | 4 | 5 |

| **6. How much do you enjoy life?** | | | | |
|---|---|---|---|---|
| Not at all | A little | A moderate amount | Very much | An extreme amount |
| 1 | 2 | 3 | 4 | 5 |

| **7. To what extent do you feel your life to be meaningful?** | | | | |
|---|---|---|---|---|
| Not at all | A little | A moderate amount | Very much | An extreme amount |
| 1 | 2 | 3 | 4 | 5 |

| **8. To what extent are you bothered by people blaming you for your HIV status?** | | | | |
|---|---|---|---|---|
| Not at all | A little | A moderate amount | Very much | An extreme amount |
| 1 | 2 | 3 | 4 | 5 |

**9. How much do you fear for the future?**

| Not at all | A little | A moderate amount | Very much | An extreme amount |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

**10. How much do you worry about death?**

| Not at all | A little | A moderate amount | Very much | An extreme amount |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

**11. How well are you able to concentrate?**

| Not at all | A little | A moderate amount | Very much | Extremely |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

**12. How safe do you feel in your daily life?**

| Not at all | A little | A moderate amount | Very much | Extremely |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

**13. How healthy is your physical environment?**

| Not at all | A little | A moderate amount | Very much | Extremely |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

The following questions ask **how completely** you experience or were able to do certain things in the last two weeks.

**14. Do you have enough energy for everyday life?**

| Not at all | A little | Moderately | Mostly | Completely |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

**15. Are you able to accept your bodily appearance?**

| Not at all | A little | Moderately | Mostly | Completely |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

**16. Have you enough money to meet your needs?**

| Not at all | A little | Moderately | Mostly | Completely |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

**17. To what extent do you feel accepted by the people you know?**

| Not at all | A little | Moderately | Mostly | Completely |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

**18. How available to you is the information that you in your day-to-day life?**

| Not at all | A little | Moderately | Mostly | Completely |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

**19. To what extent do you have the opportunity for leisure activities?**

| Not at all | A little | Moderately | Mostly | Completely |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

| **20. How well are you able to get around?** | | | | |
|---|---|---|---|---|
| Very poor | Poor | Neither poor or good | Good | Very good |
| 1 | 2 | 3 | 4 | 5 |

The following questions ask you how **good or satisfied** you have felt about various aspects of your life over the last two weeks.

| **21. How satisfied are you with your sleep?** | | | | |
|---|---|---|---|---|
| Very dissatisfied | Dissatisfied | Neither satisfied nor dissatisfied | Satisfied | Very satisfied |
| 1 | 2 | 3 | 4 | 5 |

| **22. How satisfied are you with your ability to perform your daily living activities?** | | | | |
|---|---|---|---|---|
| Very dissatisfied | Dissatisfied | Neither satisfied nor dissatisfied | Satisfied | Very satisfied |
| 1 | 2 | 3 | 4 | 5 |

| **23. How satisfied are you with your capacity for work?** | | | | |
|---|---|---|---|---|
| Very dissatisfied | Dissatisfied | Neither satisfied nor dissatisfied | Satisfied | Very satisfied |
| 1 | 2 | 3 | 4 | 5 |

| **24. How satisfied are you with yourself?** | | | | |
|---|---|---|---|---|
| Very dissatisfied | Dissatisfied | Neither satisfied nor dissatisfied | Satisfied | Very satisfied |
| 1 | 2 | 3 | 4 | 5 |

| **25. How satisfied are you with your personal relationships?** | | | | |
|---|---|---|---|---|
| Very dissatisfied | Dissatisfied | Neither satisfied nor dissatisfied | Satisfied | Very satisfied |
| 1 | 2 | 3 | 4 | 5 |

| **26. How satisfied are you with your sex life?** | | | | |
|---|---|---|---|---|
| Very dissatisfied | Dissatisfied | Neither satisfied nor dissatisfied | Satisfied | Very satisfied |
| 1 | 2 | 3 | 4 | 5 |

| **27. How satisfied are you with the support you get from friends?** | | | | |
|---|---|---|---|---|
| Very dissatisfied | Dissatisfied | Neither satisfied nor dissatisfied | Satisfied | Very satisfied |
| 1 | 2 | 3 | 4 | 5 |

| **28. How satisfied are you with the conditions of your living place?** | | | | |
|---|---|---|---|---|
| Very dissatisfied | Dissatisfied | Neither satisfied nor dissatisfied | Satisfied | Very satisfied |
| 1 | 2 | 3 | 4 | 5 |

| **29. How satisfied are you with your access to health services?** |
|---|

| Very dissatisfied | Dissatisfied | Neither satisfied nor dissatisfied | Satisfied | Very satisfied |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |

| **30. How satisfied are you with your transport?** | | | | |
|---|---|---|---|---|
| Very dissatisfied | Dissatisfied | Neither satisfied nor dissatisfied | Satisfied | Very satisfied |
| 1 | 2 | 3 | 4 | 5 |

The following question refers to **how often** you have felt or experienced certain things in the last two weeks.

| **How often do you have negative feelings such as blue mood, despair, anxiety, depression?** | | | | |
|---|---|---|---|---|
| Never | Seldom | Quite often | Very often | Always |
| 1 | 2 | 3 | 4 | 5 |

**2. K 10 test**

These questions concern how you have been feeling over the past 30 days.

Tick the box below each question that best represents how you have been in the last 30 days.

| **1. During the last 30 days, about how often did you feel tired for no good reason?** | | | | |
|---|---|---|---|---|
| None of the time | A little of the time | Some of the time | Most of the time | All the time |
| 1 | 2 | 3 | 4 | 5 |

| **2. During the last 30 days, about how often did you feel nervous?** | | | | |
|---|---|---|---|---|
| None of the time | A little of the time | Some of the time | Most of the time | All the time |
| 1 | 2 | 3 | 4 | 5 |

| **3. During the last 30 days, how often did you feel so nervous that nothing could calm you down?** | | | | |
|---|---|---|---|---|
| None of the time | A little of the time | Some of the time | Most of the time | All the time |
| 1 | 2 | 3 | 4 | 5 |

| **4. During the last 30 days, about often did you feel hopeless?** | | | | |
|---|---|---|---|---|
| None of the time | A little of the time | Some of the time | Most of the time | All the time |
| 1 | 2 | 3 | 4 | 5 |

| **5. During the last 30 days, about often did you feel restless and fidgety?** | | | | |
|---|---|---|---|---|
| None of the time | A little of the time | Some of the time | Most of the time | All the time |
| 1 | 2 | 3 | 4 | 5 |

| **6. During the last 30 days, about how often did you feel so restless that you could not sit still?** | | | | |
|---|---|---|---|---|
| None of the time | A little of the time | Some of the time | Most of the time | All the time |
| 1 | 2 | 3 | 4 | 5 |

| **7. During the last 30 days, about how often did you feel depressed?** | | | | |
|---|---|---|---|---|
| None of the time | A little of the time | Some of the time | Most of the time | All the time |
| 1 | 2 | 3 | 4 | 5 |

| **8. During the last 30 days, how often did you feel that everything was an effort?** | | | | |
|---|---|---|---|---|
| None of the time | A little of the time | Some of the time | Most of the time | All the time |
| 1 | 2 | 3 | 4 | 5 |

| **9. During the last 30 days, about how often did you feel so sad that nothing could cheer you up?** | | | | |
|---|---|---|---|---|
| None of the time | A little of the time | Some of the time | Most of the time | All the time |
| 1 | 2 | 3 | 4 | 5 |

| **10. During the last 30 days, about how often did you feel worthless?** | | | | |
|---|---|---|---|---|
| None of the time | A little of the time | Some of the time | Most of the time | All the time |
| 1 | 2 | 3 | 4 | 5 |

**THANK YOU FOR YOUR HELP**

## APPENDIX NINE: ISIZULU INFORMATION SHEET AND CONSENT TO PARTICIPATE IN RESEARCH

**Iphepha lokuqwashisa kanye nokunikeza imvume yokungenela ucwanigo.**

Usuku: 23 July 2014

Sawubona

Igama lami ngingu Khosi Simelane,Ngenza izifundo zomama, nabantwana kanye nabantu besifazane kwiziqu kokhanda mpemvu (master's degree).Ngifunda esikoleni sabahlengikazi nezempilo zomphakathi okiyinxenye ye-Univesithi yakwaZulu Natali . Imininingwane yami uma udinga ukungithinta, nge nombolo yomakhala ekhukhwini, 079 52815101, nge e-mail: 991240329@stu.ukzn.ac.za

Ngiyakumema ukuthi ubambe iqhaza kucwaningo olumayelana nokucubungula kanye noku chaza izinga lokuphazamiseka emqondweni kuqhathaniswe nezinga lempillo kubantu besifazne abaphila nesandulelangculza.

Inhloso yalelucwanigo ukuthi kucubungwe futhi kuchazwe izinga lokuphazamiseka komqondo kuqhathaniswe nezinga lempillo kubantu besifazne abaphila nesandulelangculza. Kulindeleke ukuthi abasefizane abaiyinani elingamakhulu amabili nane (elingu-204 )abazongenela lolucwaningo. Ayikho imikhomelo ozoyithola ngokubamba iqhaza kulolucwaningo nogukuba umcwaningo usangumfundi ozixhasele izifundo zakhe. Noma ungezozuza lutho ngokungenela ucwaningo, umcwaningi uyathemba ukuthi ukubamba kwakho iqhaza kulolucwaningo kuzoba nomthelelo wokwandisa ulwazi oluzosiza abasebenzi bezempilo ukuthi banikeze uhlelo lwezempilo ulongcono kubantu besifazane abaphila nesisifo sesandulela ngculaza.

Ukuze sihloniphe isifuba sakho nezimfihlo zakho akudingeki ukuthi uveze igama lakho ngesikhathi ungenela lolucwaningo.Lonke ulwazi neminingwane ethalokalayo kulolucwaningo, izobhalwa phansi, ibekwe and endwaweni ephephile ukuze siqikilele ukuthi iminigwane yocwaningo iyisifuba. Ulwazi locwaningo luyonikezwa isikole sabahlengikazi nezempilo e-Univesithi yaKwaZulu Natali, kodwa ke, ngeke lize livele noma lishiwo igama lakho kulocwaningo, noma seluphelilo ucwaningo ngeke livele noma lishiwo igama lakho.

Ubungozi bokungenela lolucwanigi ukuthi kungenzeka ubone ukuphazamiseka kwakho emqondweni obungeke ukubone ukuba awuzange ungenele lolucwaningo. Kodwa uma uzibona ukuthi ukuyhi uphazamisekile emqondweni, uzohluliselawa kudoketela womqonda ozokusiza.

Unelungelo lokuthi uyeke ukulingenela ucwanigo noma isiphi isikhathi ngaphandle kwenhlawulo.
Uzonikezwa iphepha lemibuzo ezothatha imizuzu engamahumi amabili (20 minutes) ukuyigcwalisa.
Ngeke kukubize mali ukungenela lolucwaningo.

Uma unemibuzo noma uthanda ukoxoxa ngabanzi ngaphambikokuthi uthathe isinqumo sokungenela ucwaningo, ungangabazi ukubuzu umcwaningi ukuthi akuchazele ngabanzi noma uningithinte kulelikheli noma inombolo ebhalwe phezulu ekuqaleni kwaleliphepha.

Uma kunesimo noma inkinga ethile noma izikhalazo/imibuzo ungakwazi ukuthi uxhumane no mcwaningi kulenombolo yomakhala ekhukhwini (Cell.) No. 079 5281501, noma kulelikheli (e-mail): 991240329@stu.ukzn.ac.za noma ngixhumane nekomodi i-UKZN Biomedical research Ethic committee kulemininingwane elandelayo:

**BIOMEDICAL RESEARCH ETHICS ADMINISTRATION**
**Research Office, Westville Campus**
**Govan Mbeki Building**
University of KwaZulu-Natal
Private Bag X 54001
Durban
4000
KwaZulu-Natal, SOUTH AFRICA
Tel: 27 31 2602486 - Fax: 27 31 2604609
Email: BREC@ukzn.ac.za

## APPENDIX TEN: ISIZULU CONSENT FORM

### Isivumelwane

Mina ____________________________________________________ngichazeliwe uKhosi Simelane ngocwaningo olumayelana noku hlola kanye noku chaza izinga lokukhathezeka emqondweni kuqhathaniswe nesimo sempillo kubantu besifazne abaphila nesandulelangculza. Ngiyaqonda ukuthi inhloso yalolucwaningo ukuhlola kanye noku chaza izinga lokukhathezeka emqondweni kuqhathaniswe nesimo sempillo kubantu besifazne abaphila nesandulelangculza

Nginikeziwe ithuba lokubuza imibuzo mayelana nalolucwaningo, ngacgculiseka futhi ngendlela imibuzo ephendulwe ngayo. Ngiyavuma ukuthi angiphoqhwanga ukungenela lolucwaningo ngilungenele ngemvume yami, ngivumelekile. Nginelungelo lokuthi ngiyeke ukulingenela ucwanigo noma isiphi isikhathi, ukuyeka kwami ngeke kuphzamise ukwelashwa noma ukunakekelwa kwami okuyinjwayelo.

Uma nginemibuzo/ izikhalazo ezimayelana nalolucwaningo ngiyaqonda ukuthi ngikakwazi ukuthi ngixhumane umcwaningi kulenombolo yomakhala ekhukhwini (Cell.) No. 079 5281501, noma kulelikheli (e-mail): 991240329@stu.ukzn.ac.za noma uma nginezikhalazo ezimayelana nezinto eziphathelene nocwaningo ngingakwazi ukuthi ngixhumane nekomodi i-UKZN Biomedical research Ethic committee kulemininingwane elandelayo:

**BIOMEDICAL RESEARCH ETHICS ADMINISTRATION**
**Research Office, Westville Campus**
**Govan Mbeki Building**
University of KwaZulu-Natal
Private Bag X 54001
Durban
4000
KwaZulu-Natal, SOUTH AFRICA
Tel: 27 31 2602486 - Fax: 27 31 2604609
Email: BREC@ukzn.ac.za

______________________ ______________________

**Isishicilelo sombambiqhaza** **Usuku**

______________________ ______________________

**Isishicilelo sikafakazi** **Usuku**

## APPENDIX ELEVEN: ISIZULU STUDY QUESTIONNAIRE

Isimo sempilo

Okumayelana nawe
Ngaphambi kokuthi uqale sicela ukuthi uphendelu imibuzo engajulile khakhulu emeyalena nawe: Ngokufaka Indingilizi empundulweni elungileyo noma ugcwalise lapho kunendawo yokugcwalisa khona.

Yini isilili sakho? Isilisa/Isifazane

Ugcine ebangeni lesingaki ukufunda? Angifundanga,Indikimba (Primary)

indkimba esemqoka (Secondary) Ohlelweni lokufunda/ (Tertiary)

Isimo sakho somshado? Uzimelle/Ushadile/Nihleli njengomndeni /Nahlukene/Ungumfelokazi

Sinjani isimo sempilo yakho Ibuthakathaka/ Ibuthakathaka kakhulu/ ngokulinganisa/ Sihle/Sihle kakhulu

Uyasebenza na? Yebo/Cha

Uma ungasebenzi, ubani owondla umndeni?

Ngabe uzibona ugula na? Yebo/Cha

Imuphi uyanyaka uwaqala ukuzwa ukuthi uphila nesifo sesandulela ngculaza?

Ucabanga ukuthi umuphi unyaka owathelelwa ngayo ngesandulela ngculaza

Wawucanga wathelelelka kanjani ngesandulela ngculaza na?

Ukuhlangana kocansi nomuntu wesilisa / ukuhlangana kocansi nomuntu wesifazane /ukujova ngezidakamizwa/Izinto zegazi / noma okunye (sicela uchaze) _

Isaluleko

Lapha kuhlolwa ukuthi usizwa sinjani isimo sempilo yakho, kokwezempilo noma kwezinye izingxene zezimo zompilo?

Sicela uphendulo yonke imibuzo.

Uma ungenaso isiqiniseko ngokuthi uzowuphedula kanjani umbuzo, sicela ukhethe impedulo obona engathi iyona afenele. Kuvamile ukuthi kube yimpedulo yako yokuqala.

Sicela ucabange ngempilo yakho, amathemba akho, okukujabulisayo, nokukhathazayo. Siyacela ukuthi ucabange ngesimo sempilo yakho kulalmasonto amabili asedlulile.

Umzekelo, kusasemqondweni akho amasonto amabili adlule, umbuzo ungabuza ukuthi:

| **Ukwazi kangakanani ukuhlale uqaphile esimeni esithile?** | | | | |
|---|---|---|---|---|
| Angikwazi | Kancane | ngokulinganisela | Kakhulu | Kahulu kabi |
| 1 | 2 | 3 | 4 | 5 |

Kufanele ukhethe futhi ufake indingiliza kwinombolo echaze kahle kakhulu ukuthi ukwazi kangakanani ukuhlale uqwashile esimeni esithile?

Uzokhetha ufake indingiliza kwinombolo yesine (yesi-4) uma ukwazi ukuhlala uqwashile esimeni kakhulu

Uzokhetha ufake indingiliza kwinombolo yokuqala (ya-1)) uma ungakwazi ukuhlala uqwashile esimeni esihile.

Sicela ufunde imibuzo, uhlole imizwa noma imicabango yakho, bese ufake indingiliza kwimpendulo ephendula kahle kakhulo umubuzo.

| **1. Ungalikala uthini izinga lempilo yakho?** | | | | |
|---|---|---|---|---|
| Libuthakathaka kakhulu | Libuthakathaka | Ngokulinginisa | Lilungile | Lilunge kakhulu |
| 1 | 2 | 3 | 4 | 5 |

| **2. Ugculiseke kangakanani ngezinga lempilo yakho?** | | | | |
|---|---|---|---|---|
| Angigculisekile kakhulu | Angigculisekile | Ngeke ngisho ukuthi ngigculisekile futhi ngeke ngisho ukuthi angigculisekile | Ngigculisekile | Ngigculiseke kakhulu |
| 1 | 2 | 3 | 4 | 5 |

Imibuzo elandelayo ibuza ukuthi usuhlangabezeke kangaki nezimo ezethile emasontweni amabili edlule.

| **3. Ubuhlungu basemzimbeni bukuvimba kangakanani ekwenzeni izidingo zakho** | | | | |
|---|---|---|---|---|
| Akungivimbi | Kungivimba kancane | Ngokulinganisela | Kakhulu | Kakhulu kabi |
| 1 | 2 | 3 | 4 | 5 |

| **4. Zikuhlupha kangakanani izinkinga zomzimba ezihambelana nesifo sesandulela ngculaza?** | | | | |
|---|---|---|---|---|
| Azingihluphi | Zingihlupha kancane | ngokulinganisela | Kakhulu | Kahulu kabi |
| 1 | 2 | 3 | 4 | 5 |

| **5. Ulindinga kangakanani usizo lomkhakhakha wezempilo ukuze ukwazi ukuthi uphile kahle yonke imihla noma zoke izinsuku?** | | | | |
|---|---|---|---|---|
| Angilidingi usizo | Kancane | Ngokulinganisela | Kakhulu | Kakhulu kabi |
| 1 | 2 | 3 | 4 | 5 |

| **6. Uyithokozela kangakanani impilo yakho?** | | | | |
|---|---|---|---|---|
| Angiyithokozeli | Ngiyithokozela kancane | Ngokulinganisela | Kakhulu | Kahulu kabi |
| 1 | 2 | 3 | 4 | 5 |

| **7. Ubona impilo yakho inqubekela phambili?** | | | | |
|---|---|---|---|---|
| Ayinanhloso | Kancane | Ngokulinganisela | Kakhulu | Kakhulu kabi |
| 1 | 2 | 3 | 4 | 5 |

| **8. Kukuhlupha kanganani ukosolwa abantu ngesimo sakho nokuphila ngesandulela ngculeza?** | | | | |
|---|---|---|---|---|
| Akungihluphi | Kancane | Ngokulinganisa | Khakhulu | Kakhulu kabi |
| 1 | 2 | 3 | 4 | 5 |

| **9. Unovalo kangakanani ngekusasa lakho?** | | | | |
|---|---|---|---|---|
| Anginalo uvalo | Kancane | Ngokulinganisa | Khakhulu | Kakhulu kabi |
| 1 | 2 | 3 | 4 | 5 |

| **10. How much do you worry about death?**<br>**Ukhathazeka kangakanani ngokufa?** | | | | |
|---|---|---|---|---|
| Anginalo uvalo | Nginovalo oluncane | Ngokulinganisela | Kakhulu | Kakhulu kabi |
| 1 | 2 | 3 | 4 | 5 |

| **11. Ukwazi kangakanani ukuhlale uqaphile esimeni esithile?** | | | | |
|---|---|---|---|---|
| Angikwazi | Kancane | Ngokulinganisela | Kakhulu | Kahulu kabi |
| 1 | 2 | 3 | 4 | 5 |

| **12. Uzizwa uphephe kangakanani emihleni yangemihla** | | | | |
|---|---|---|---|---|
| Angizazwa ngiphephile | Kancane | Ngokulinganisela | Kakhulu | Kakhulu kabi |
| 1 | 2 | 3 | 4 | 5 |

| **13. Inempilo kangakanani indawo ohlala kuyo?** | | | | |
|---|---|---|---|---|
| Ayinampilo | Kancane | Ngokulinganisela | Kakhulu | Kahulu kabi |
| 1 | 2 | 3 | 4 | 5 |

Imibuzo elandelayo ibuza ukuthi ukwazi kangakanani ukuhlangabezana noma ukwenza izinto ezithile ngokuphelele emasontweni amabili adlule?

| **14. Unomfutho owanele zonke izinsuku?** | | | | |
|---|---|---|---|---|
| Anginawo umfutho | Kancane | Ngokulinganisela | Kakhuku | Kakhulu kabi |
| 1 | 2 | 3 | 4 | 5 |

| | | | | |
|---|---|---|---|---|
| **15. Uyasamukela isimo somzimba wakho?** | | | | |
| Angisamukeli | Kancane | Ngokulinganisa | Isikhathi esiningi ngiyassmukela | Ngiwamukela ngokuphelele |
| 1 | 2 | 3 | 4 | 5 |

| | | | | |
|---|---|---|---|---|
| **16. Unemali eyanele efeza zonke izidingo zakho?** | | | | |
| Anginayo kwayona | Nginemali encane | Ngokulinganisa | Isikhathi esiningi nginayo | Ifeza izizdingo ngokuphelele |
| 1 | 2 | 3 | 4 | 5 |

| | | | | |
|---|---|---|---|---|
| **17. Uzizwa wamukeleke kangakanani kubantu obaziyo?** | | | | |
| Not at all<br>Angamukelekile | A little<br>Kancane | Moderately<br>Ngokulinganisa | Mostly<br>Isikhathi esiningi | Completely<br>Ngamukeleke ngokuphelele |
| 1 | 2 | 3 | 4 | 5 |

| | | | | |
|---|---|---|---|---|
| **18. Lutholakala kangakanani ulwazi oludingiyo imihla yonke?** | | | | |
| Not at all<br>Angilitholi | A little<br>Kancane | Moderately<br>Ngokulinganisa | Mostly<br>Ngilithola isiskhathi esiningi | Completely<br>Ngilithola ngokuphelele |
| 1 | 2 | 3 | 4 | 5 |

| | | | | |
|---|---|---|---|---|
| 19. Ukwazi ukwenze izinto zokungcebeleka kangakanani? | | | | |
| Not at all<br>Angikwazi ukuzenza | A little<br>Kancane | Moderately<br>Ngokulinganisa | Mostly<br>Isikhathi esiningi | Completely<br>Ngokuphelele |
| 1 | 2 | 3 | 4 | 5 |

| | | | | |
|---|---|---|---|---|
| **20. Kulungile kangakanani ukuhlangabezana ezingaphandle** | | | | |
| Kubuthathaka | Kubuthakathaka kakhulu | Ngokulinganisa | Kuhambeka kahle | Kuhambeka kahle kakhulu |
| 1 | 2 | 3 | 4 | 5 |

Imibuzo elandaleya ibuza ukuthi waneliseke kangakanani ngezimo noma zinhle kangakanani izimo zempilo yakho kumasonto amabili adlule.

| | | | | |
|---|---|---|---|---|
| **21. Kukwanelisa kangakanani ubuthongo bakho?** | | | | |
| Abunganelisi kakhulu | Abunganelisi | Ngokulinganisa | Buyanganelisa | Bunganelisa Kakhulu |
| 1 | 2 | 3 | 4 | 5 |

| | | | | |
|---|---|---|---|---|
| **22. Waneliseke kangakanani ngokwazi ukewenza izinto odinga ukuzenza izinsuku zonke?** | | | | |
| Angenelisekile kakhulu | Anganelisekile | Ngokulinganisa | Nganelisekile | Nganelisekile kakhulu |
| 1 | 2 | 3 | 4 | 5 |

| **23. Waneliseke kangakanani ngendle yakho yokusebenza?** | | | | |
|---|---|---|---|---|
| Nganelisekile | Anganelisikile | Ngokulinganisa | Nganelisekile | Nganelisekile kakhulu |
| 1 | 2 | 3 | 4 | 5 |

| **24. Waneliseke kangakanani ngobuwena noma ngento oyiyona?** | | | | |
|---|---|---|---|---|
| Nganelisekile | Anganelisikile | Ngokulinganisa | Nganelisekile | Nganelisekile kakhulu |
| 1 | 2 | 3 | 4 | 5 |

| **25. Waneliseke kangakanani ngobudlelwane onabo nabantu abasondelene nawe?** | | | | |
|---|---|---|---|---|
| Nganelisekile | Anganelisikile | Ngokulinganisa | Nganelisekile | Nganelisekile kakhulu |
| 1 | 2 | 3 | 4 | 5 |

| **26. Waneliseke kangakanani ngempilo yakho yosocansini?** | | | | |
|---|---|---|---|---|
| Nganelisekile | Anganelisikile | Ngokulinganisa | Nganelisekile | Nganelisekile kakhulu |
| 1 | 2 | 3 | 4 | 5 |

| **27. Waneliseke kangakanani ngosizo olithola kubangani?** | | | | |
|---|---|---|---|---|
| Nganelisekile | Anganelisikile | Ngokulinganisa | Nganelisekile | Nganelisekile kakhulu |
| 1 | 2 | 3 | 4 | 5 |

| **28. Waneliseke kangakanani ngesimo sendawo ohlala kuyo?** | | | | |
|---|---|---|---|---|
| Nganelisekile | Anganelisikile | Ngokulinganisa | Nganelisekile | Nganelisekile kakhulu |
| 1 | 2 | 3 | 4 | 5 |

| **29. Waneliseke kangakanani ngokwazi ukuthi uthole ukusizakala kumkhakha wezempilo?** | | | | |
|---|---|---|---|---|
| Nganelisekile | Anganelisikile | Ngokulinganisa | Nganelisekile | Nganelisekile kakhulu |
| 1 | 2 | 3 | 4 | 5 |

| **30. Waneliseke kangakanani ngezinto zekugibela noma zokuhamba?** | | | | |
|---|---|---|---|---|
| Nganelisekile | Anganelisikile | Ngokulinganisa | Nganelisekile | Nganelisekile kakhulu |
| 1 | 2 | 3 | 4 | 5 |

Imibuzo elandelayo imayelana nokuthi uhlangebezane kangaki nezimo ezithile kumasonto amabili adlule?

| **31. Kukangaki uzizwa sengathi udikibele, ulahlekelwa ithemba, unovalo, ukhathazekile** | | | | |
|---|---|---|---|---|
| Angikaze | Angivamile | Kuvamile ukwenzeka | Kwenzeka kaningi | Kwenzeka njalo |
| 1 | 2 | 3 | 4 | 5 |

**2. K 10 test**

Imibuzo elandelayo imayelana nokuthi uzizwe usesimeni esinjani emoyeni ezinsukwini ezinamashumi amathathu adlule noma ezingu 30 ezidlule?

Khetha impendulo esebhokisini echaza kahle kakhulu isimo ozithola ukusona ezinsukwini ezingamashumi amathathu adlule noma ezingu 30 ezidlule.

| **32. Ezinsukwini ezingamashumi amathathu adlullile noma ezingu-30 ezedlule, uzizwe kangaki ukhathele singekho isizathu?** | | | | |
|---|---|---|---|---|
| Asikho asikahthi ngizizwa ngikhathele | Ngizizwa isikhashana nje | Ngezinye izikhathi | Isikhathi esiningi | Sonke isikathi |
| 1 | 2 | 3 | 4 | 5 |

| **33. Ezinsukwini ezingamashumi amathathu adlullile noma ezingu-30 ezedlule, ikangaki lapho uzizwa ungazethembi?** | | | | |
|---|---|---|---|---|
| Angikaze ngifukelwe ukungazethembi | Ngizizwa isikhashana nje | Kwezinye izikhathi | Isikhathi esiningi | Sonke isikathi |
| 1 | 2 | 3 | 4 | 5 |

| **34. Ezinsukwini ezingamashumi amathathu adlullile noma ezingu-30 ezedlule, ikangaki lapho uzizwa ungazethembi ngendlela ukuthi ayikho into engabuyisa ukuzithemba?** | | | | |
|---|---|---|---|---|
| Angikaze ngifikelwe isimo esenza ukuthi kungabuyi ukuzithemba | Kwenzeka isikhashana bese kuyabuya ukuzithemba | Ngezinye izikhathi | Isikhathi esiningi | Sonke isikathi |
| 1 | 2 | 3 | 4 | 5 |

| **35. Ezinsukwini ezingamashumi amathathu adlullile noma ezingu-30 ezedlule, uzizwe kangaki ulahlekelwe ithemba?** | | | | |
|---|---|---|---|---|
| Asikho isikhathi lapho ngilahlekelwa ithemba | Ngilahlekelwa ithemba isikhashana nje | Ngezinye izikhathi | Isikhathi esiningi | Sonke isikathi |
| 1 | 2 | 3 | 4 | 5 |

| **36. Ezinsukwini ezingamashumi amathathu adlullile noma ezingu-30 ezedlule, uzizwe kangaki ungenakuphumula nokungahleleki?** | | | | |
|---|---|---|---|---|
| Asikho isikhathi lapho ngikakwazi ukuhlala ndawonye noma ngimatasatasa? | Kwenzeka isikhashana | Ngezinye izikhathi | Isikhathi esiningi | Sonke isikathi |
| 1 | 2 | 3 | 4 | 5 |

| **37. Ezinsukwini ezingamashumi amathathu adlullile noma ezingu-30 ezedlule, uzizwe kangaki ungakwazi ukuhlala ndawonye unganyakazi?** | | | | |
|---|---|---|---|---|
| Asikho isikhathi lapho ngikakwazi ukuhlala ndawonye ngikanyakzi | Kwenzeka isikhashana | Ngezinye izikhathi | Isikhathi esiningi | Sonke isikathi |
| 1 | 2 | 3 | 4 | 5 |

| **38. During the last 30 days, about how often did you feel depressed?** **Ezinsukwini ezingamashumi amathathu adlullile noma ezingu-30 ezedlule, kukangaki uzizwa ukakhathezekie?** | | | | |
|---|---|---|---|---|
| Asikho iskhathi lapho ngiphansi emoyeni | Kwenzeka isikhashana | Ngezinye izikhathi | Isikhathi esiningi | Sonke isikathi |
| 1 | 2 | 3 | 4 | 5 |

| **39. Ezinsukwini ezingamashumi amathathu adlullile noma ezingu-30 ezedlule, kukangaki uzwa sengathi yonke into uyenza ngokuzinikela kakhso?** | | | | |
|---|---|---|---|---|
| Asikho isikhathi lapho ngidinga umfutho uma zingokwenza into | Kwenzeka isikhashana | Ngezinye izikhathi | Isikhathi esiningi | Sonke isikathi |
| 1 | 2 | 3 | 4 | 5 |

| **40. Ezinsukwini ezingamashumi amathathu adlullile noma ezingu-30 ezedlule, kukangaki uzizwa uphansi emoyeni ngalendlela yokuthi ayikho into engavusa umoya wakho?** | | | | |
|---|---|---|---|---|
| Asikho isikhathi lapho ngibaphansi ngalendlela yokuthi ungavuki umoya. | Kwenzeka isikhashana | Ngezinye izikhathi | Isikhathi esiningi | Sonke isikathi |
| 1 | 2 | 3 | 4 | 5 |

| **41. Ezinsukwini ezingamashumi amathathu adlullile noma ezingu-30 ezedlule, kukangaki uzizwa sengathi awuyilutho empilweni?** | | | | |
|---|---|---|---|---|
| Asikho isikathi lapho ngizizwa ngingeyilutho empilweni | Kwenzeka isikhashana | Ngezinye izikhathi | Isikhathi esiningi | Sonke isikathi |
| 1 | 2 | 3 | 4 | 5 |

THANK YOU FOR YOUR HELP

SIYALUBONGA USIZO LWAKHO

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