

**FACTORS THAT CONTRIBUTE TO HIV AND AIDS STIGMA AMONG NURSES  
AT THE POLOKWANE-MANKWENG HOSPITAL COMPLEX IN THE LIMPOPO  
PROVINCE, SOUTH AFRICA**

**by**

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## DECLARATION

I declare that the **“Factors that contribute to HIV and AIDS stigma among nurses at the Polokwane-Mankweng Hospital Complex in the Limpopo Province, South Africa”** (mini-dissertation) hereby submitted to the University of Limpopo, for the degree of Master of Public Health has not previously been submitted by me for a degree at this or any other university; that this is my work in design and in execution, and that all materials contained herein has been duly acknowledged.

**Kgosimore K C (MRS)**

**Date: 11 May 2016**

## **DEDICATION**

This dissertation is dedicated to my wonderful family; particularly to my supportive and understanding husband, David, my sons, Ntsako and Letsholo, my brothers, sisters, and my inspiring in-laws for their love, support, and encouragement during this research project. Finally, I dedicate this work to my late parents, Alex and Bethsheba Shiburi, who both believed that education was the best inheritance that they could bestow upon their children.

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## **ABSTRACT**

**Purpose of study:** The purpose of this study was to determine the factors that contribute to HIV and AIDS stigma amongst nurses at the Polokwane-Mankweng Hospital Complex in Limpopo Province, South Africa.

**Objectives:** The objectives of this study were to identify the sources of stigma at the health facility, to determine whether attitudes, beliefs, and knowledge contribute to HIV and AIDS stigma, and to develop intervention programmes to reduce HIV-related stigma.

**Method:** A descriptive cross sectional survey using self-administered questionnaire was used in this study to describe factors that contributed to HIV and AIDS stigma.

**Data collection:** The researcher collected data by means of a structured questionnaire and analysed the results with the assistance of the Statistical Package for Social Sciences (SPSS) software program.

**Results:** The study revealed that negative attitudes and a lack of knowledge contributed to AIDS-related stigma. The study recommended that any stigma reduction programme should be implemented at three levels; namely at the individual, environmental, and policy levels.

**Conclusion:** Fear of infection and lack of knowledge about HIV and AIDS fuel negative attitudes towards people living with HIV and AIDS. Education and training are necessary to mitigate stigma.

## DEFINITION OF CONCEPTS

**Stigma** is defined as a deeply discrediting attribute that devalues a person in the eyes of other people (UNAIDS, 2002). This means that people will look at someone and have a negative attitude towards that person owing to a certain quality or characteristic, for example a person is known to be HIV- positive.

**HIV and AIDS stigma (or AIDS-related stigma)** is the unfair and unjust treatment of individuals perceived to have HIV or AIDS (Herek, Mitnick, Burns, Chessney, Devine, Fullilove, Fullilove, Gunther, Levi, Michaels, Novick, Pryor, Snyder, & Sweeney, 1998).

**Enacted stigma** refers to the actual experience of stigma. For example, a person who is HIV-positive is being treated unfairly or differently to anyone else due to an HIV-positive status (Brown, Trujilo & Macintyre, 2003).

### **Perceived stigma**

**Felt stigma** refers to real or imagined fear of societal attitudes arising from a particular undesirable attitude or disease. For example, a person fears being rejected due to an HIV-positive status (Brown *et al.*, 2003).

**Discrimination** is a form of behaviour which results in unjustifiable treatment of different people or groups (Siyam'kela, 2003).

**Health care workers** refer to all people who work in the health care setting. However, in this study, it refers to all categories of nurses, i.e. professional nurses, enrolled nurses, and assistant nurses.

## **LIST OF ABBREVIATIONS AND ACRONYMS**

<b>AIDS</b>	Acquired immune deficiency syndrome
<b>ART</b>	Antiretroviral therapy
<b>HDN</b>	Health and Development Networks
<b>HIV</b>	Human immunodeficiency virus
<b>HSRC</b>	Human Sciences Research Council
<b>ICWR</b>	International Centre for Research on Women
<b>MPH</b>	Master of Public Health
<b>PEP</b>	Post-exposure prophylaxis
<b>PLWHA</b>	People living with HIV and AIDS
<b>SPSS</b>	Statistical Package for Social Sciences
<b>STI</b>	Sexually transmitted infection
<b>TB</b>	Tuberculosis
<b>UNAIDS</b>	Joint United Nations Programme on HIV / AIDS
<b>WHO</b>	World Health Organisation

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# CHAPTER 1

## OVERVIEW AND BACKGROUND

### 1.1 INTRODUCTION

Health care settings are often the first point of contact for people with HIV and have been identified as a common environment for stigma and discrimination against people with or suspected of HIV or AIDS (Mahendra, Hall & Gilborn, 2004). In every country and every social setting since the disease has initially been identified, individuals who are assumed to be HIV-positive have been subject to a variety of negative reactions; including physical and verbal abuse, loss of employment, as well as rejection by families, spouses, and friends. In general, HIV continues to be a public health problem with complex social and behavioural consequences related to protection, prevention of transmission, and care for health care workers; particularly the nursing personnel who care for people living with HIV (PLHIV).

The real meaning of stigma is questionable, since it has cultural connotations (UNAIDS, 2003). However, stigma is commonly associated with attitudes, beliefs, and policies directed towards people perceived to have what Goffman identifies as a spoilt or polluted identity that is considered deviant of societal norms and deserving of sanctioning (Parker & Aggleton, 2002) due to certain attributes which significantly discredit a person infected with HIV and those people who associate with infected individuals.

Stigma originates from the shame, fear, and silence that shape negative perceptions of people living with HIV and the behaviour thought to be associated with HIV transmission (Cao, Sullivan, Xu, & Wu, 2006). According to Leow, Groen, Bae, Adisha, Kingham & Kushner (2012), such perceptions of HIV and of people living with the virus are partly fuelled by the inadequate health care infrastructure and services in many settings. HIV appears to be more severe than the associations with other life-threatening conditions. It also extends beyond the disease itself to providers and even volunteers who are involved with the care of people living with HIV and associated disease (Herek, Mitnick, Burns, Chessney, Devine, Fullilove, Fullilove, Gunther, Levi, Michaels, Novick, Pryor, Snyder, & Sweeney, 1998).

Stigma affects PLWHA and has great potential to impact on the quality of life. The dynamics associated with stigmatisation are many and often varied. HIV is more often than not expressed in conjunction with other stigmas; such as homosexuality, bisexuality, and drug use (Brown, Macintyre & Trujilo, 2003). However, stigma is not unique to the HIV epidemic; it has long been associated with diseases of disfigurement, such as leprosy, death associated with cholera, and also diseases associated with transgression of social norms as in the case of socially unsanctioned sexual activity (Valdiserri, 2002). Stigma and discrimination are part of a complex system of beliefs about illness and disease that is grounded in social inequalities (Cao *et al.*, 2006). Stigma can be divided into felt, perceived, and enacted stigma (Brown *et al.*, 2003). Felt stigma includes real or imagined fear of societal attitudes and potential discrimination arising from a particular undesirable attribute; such as HIV and related diseases, or the association with particularly unique human expression, for example homosexuality and the practice of promiscuity. While enacted stigma refers to the actual experiences of stigma, for example PLWHA are treated unfairly or differently to everyone else due to their HIV-positive status (Brown *et al.*, 2003).

HIV– related stigma is most profound in hospitals because this is where the risks are highest. The fear of infection creates concern among those going to health facilities, especially where those with HIV opportunistic infections are received. Naturally, people living with HIV detect those attitudes (Deacon & Boulle, 2006).

Nurses are also concerned about the risks of HIV transmission through casual contact (Li *et al.*, 2007). This fear leads to the adoption of excessive and unnecessary measure that experienced as stigmatising by people living with HIV. However, nurses, like other people in the community may be unaware that their attitudes and actions are stigmatising towards people living with HIV. Fear and discriminatory control measures drive HIV even further, increasing stigma, and making both HIV prevention and support for patients harder to achieve. The current study was designed to identify factors that contribute towards stigmatisation of people living with HIV by nurses in the Polokwane Hospital in Limpopo province of South Africa.

## **1.2 PROBLEM STATEMENT**

In the third decade of the disease, HIV continues to generate fear, misunderstanding, misinformation, and discrimination. HIV has presented new challenges for the health care sector by invoking fear and stigma in society and at the health facilities. Nurses, as one category of health care workers who work in close proximity have a tremendous influence on the physical and emotional welfare of people with HIV and AIDS or who are vulnerable to infection. It is not surprising, therefore, that people living with HIV are highly sensitive to the attitudes and behaviour of Nurses. While the majority of nurses comply with ethical guidelines and do not deny care, treatment, or support to people living with HIV; a disturbing number of health care professionals are reported as engaging in stigmatising and discriminatory behaviour. Stigma and discrimination at health care facilities are particularly damaging because it is at health facilities that people living with HIV seek care and treatment to remain healthy particularly in this era where antiretroviral treatment has been made available to all.

## **1.3 AIM OF THE STUDY**

The aim of this study was to identify the factors that contribute to HIV and AIDS stigma among nurses at the Polokwane Hospital Campus in the Limpopo Province, South Africa.

## **1.4 STUDY OBJECTIVES**

1. To determine the socio-demographic characteristics of the nurses working at the Polokwane Hospital Campus
2. To determine the existence of perceived stigma by nurses towards people living with HIV and AIDS
3. To identify the factors that contributes to HIV-related stigma among nurses at the Polokwane Hospital Campus

## **1.5 RESEARCH QUESTIONS**

The following research question was used to guide the study: “What are the factors that contribute to HIV-related stigma towards people living with HIV and AIDS by nurses at the Polokwane Hospital Complex in the Limpopo Province, South Africa?”

## **1.6 SIGNIFICANCE OF THE STUDY**

This study will identify factors contributing to stigmatisation of PLWH by nurses in the hospital. This information is important in designing evidence-based interventions to reduce stigmatising attitudes from nurses and other health professionals toward PLWH. A specific curriculum can be suggested for preparing professional and caring nurses to assist and support PLWH. AT the policy level, this study will provide a foundation for developing practice standards and nursing education guidelines that are sensitive and directed toward minimizing stigmatising attitudes toward PLWH from nurses and other health professionals.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

This chapter reviews literature dealing with HIV and AIDS stigma among nurses in the health care setting. The purpose of a literature review is to collect reliable and valid evidence to understand the underlying factors HIV-related stigma and discrimination, to document how stigma and discrimination manifest, and to look for ways to reduce stigma and discrimination in the health care setting among nurses. The literature review consists of the following: definition of sigma and discrimination, manifestations of HIV stigma, in health care settings, factors that contribute to stigma among health care workers in general and nurses in particular, the impact of stigma on prevention and summary of the literature.

The literature review used articles found through web based data bases such as MEDLINE as well as Google Scholar for scholarly articles on stigma in general, health care workers and stigma, attitude of nurses towards people living with HIV nurses to stigmatise people living with HIV, manifestations of stigma in health care settings. The key words that were used for the internet searches were: HIV stigma and discrimination, stigma in health care settings, attitudes of nurses towards PLWH, factors contributing to HIV stigma among nurses

#### **2.2 DEFINING STIGMA AND DISCRIMINATION**

The concept of “stigma” derives from a Greek word referring to a tattoo mark. This was a sign of disgrace designed to brand or mark an individual thought to be flawed or to have behaved badly and to be avoided by other members of society. Goffman (1963), defined stigma as an attribute that “intensely discredits” an individual or group in the eyes of others which results in the reduction of a person to a tainted, discounted one. Thus, the ultimate effect of stigma is the reduction of life chances of the stigmatised through discriminatory action.

Discrimination on the other hand, cannot be separated from stigma. Although in reality they are not the same, however, in keeping with Goffman (1963),

discrimination can be seen as the end product of stigma. Discrimination occurs when a distinction is made against a person that results in their being treated unfairly and particular group (The Joint United Nations Programme on HIV/AIDS (UNAIDS), 2003) Discrimination can be seen as the negative acts that result from stigma serving as a means to devalue and reduce the life chances of the stigmatised.

While Goffman focuses on the individual aspects of stigma, Parker and Aggleton (2003), on the other hand, offer a framework that emphasizes stigma as a social process that produces and reproduces relations of power and control. People out of fear of the disease want to maintain social control by contrasting those who are normal with those who are different. Based on this analysis, Ogden and Nyablade (2005) agrees that stigma and discrimination are used by dominant groups to produce, legitimize, and perpetuate social inequalities through the exclusion of stigmatised groups or individuals to resist or fight the stigma. Thus, stigma is a powerful and discrediting social label that radically changes the way individuals view themselves and are viewed as persons.

### **2.3 HIV related stigma**

Historically, stigma has been a feature of many diseases, these include among others, sexually transmitted diseases and those that are thought to be incurable and potentially fatal (Deacon, 2005). Thus, epidemics that present an overt threat to the values of a community are especially likely to evoke stigma because stigma is used to enhance or secure social structuring, safety and solidarity while on the other hand, reinforcing societal or community values by excluding divergent or deviant individuals (Gilmore and Somerville, 1994; Ogden & Nyablade, 2005).

Stigma related to medical conditions is greatest when the condition is associated with deviant behaviour or when the condition is viewed as the individual's responsibility. Stigma is also more evident when the condition is unalterable, incurable, severe degenerative and leads to readily apparent physical disfigurement or an undesirable and un- aesthetic death (Herek, Mitnick, Burns, Chessney, Devine, Fullilove, Fullilove, Gunther, Levi, Michaels, Novick, Pryor, Snyder, & Sweeney, 1998)

HIV and AIDS have all the characteristics associated with heavily stigmatized medical conditions. They are associated with improper forms of sex and injection drug use, socially censured behaviours that are viewed as the responsibility of the individual. AIDS is incurable, degenerative, often disfiguring, and associated with an “undesirable death” (Ogden & Nyabla, 2005). However, it is often incorrectly thought to be highly contagious and a threat to the community at large. The general population, and sometimes the medical personnel, are not well-informed and lack a deep understanding of HIV and AIDS.

From the above, HIV-related stigma refers to the unfair and unjust treatment of individuals perceived to have HIV or AIDS (Herek et al., 1998). UNAIDS (2003) defined HIV-related stigma as “real or perceived negative response to a person or persons by individuals, communities or society,” and it is characterised by exclusion, rejection, blame, and devaluation of such persons.

#### **2.4 Stigma and discrimination in health care settings**

Although the health care system provides care for people living with HIV and AIDS, it is also often a source of stigma. Many providers express negative attitudes towards people living with HIV and would prefer not to treat them (Herek et al., 1998).

In healthcare settings, people living with HIV experience stigma and discrimination such as differential treatment, denial of care, and disregard for the right to patient confidentiality. Lack of confidentiality has been repeatedly mentioned as a problem. Many people living with HIV do not get to choose when, how, and to whom to disclose their HIV status. The issues of confidentiality are cited as a problem at health care facilities. There are reports of HIV testing without consent, breaches of confidentiality by clearly identifying patients with HIV/ AIDS, revealing their serostatus to relatives without prior consent, or releasing information to the media at some health facilities (Parker & Aggleton, 2002; Brimlow *et al.*, 2003). Confidentiality presents a challenge to nurses in their work, since they are faced with a dilemma of balancing the patients’ rights with the rights of the ones who are taking care of patients who are not infected; for example the right of a patient not to disclose his or her status in relation to the right of a non-infected partner or family member who takes care of or who has sexual relations with a patient (Shisana *et al.*, 2002). In

turn, this situation obstructs nurses' endeavour to reduce the further spread of HIV / AIDS, since it becomes impossible to discuss important issues of prevention and care with patients and their families (Lehman & Zulu, 2005).

## **2.5 Factors contributing to HIV stigma among nurses towards People living with HIV**

In discussing the factors that contribute to HIV stigma among nurses towards people living with HIV, for each factor, the researcher describes the specific variables that previous research has associated with stigmatising attitudes towards people living with HIV.

Research conducted among general populations around the world has revealed three immediately actionable key causes of HIV related stigma in the community setting: lack of awareness of what stigma looks like and why it is damaging; fear of casual contact stemming from incomplete knowledge about HIV transmission; and values linking people with HIV to improper or immoral behaviour. Similarly among health care workers research suggests fear of casual contact and moral judgement contribute to stigma and discrimination directed at people living in with HIV.

- **Stigmatising attitudes towards PLWH among nurses**

Stigmatising attitudes have been found not only among the general population but also among health professionals. Nurses as individuals have been identified as expressing negative attitudes and discriminatory behaviour towards PLWH in health care settings as evidenced in studies conducted many countries in Africa, such as: Ethiopia, Nigeria, Rhwanda and Uganda and Botswana (Banteyerga *et al.*, 2004; Reis, C. Heisle, Amowitz, Moreland, Mafeni, Anyamele, Lacopino, 2005; Jean-Baptise, 2005; and Letamo, 2003). Stigmatising attitudes towards people living with HIV have also been documented in South Africa. A qualitative study was conducted in the North West Province of South Africa with to investigate the attitudes of nurses towards HIV positive patients. The study revealed that nurses' attitudes are mostly negative towards HIV-positive patients. Nurses experienced a conflict between personal and professional value systems and their coping mechanisms often hamper

the development of a therapeutic relationship between themselves and their patients. This is mostly due to a lack of knowledge and a lack of internalisation of knowledge, which lead to negative perceptions of the patients (Deetlefs, Greeff, & Koen, 2003).

- **Fear of HIV infection**

Fear of occupational exposure to HIV is widespread among nurses because they are aware that their jobs place them at risk of HIV infection (Shisana, Hall, Maluleke, Stoker, Schwabe, Colvin, Chauveau, Botha, Gumede, Formundam, Shaikh, Rehr, Udjo, & Gisseiquist, (2002). In turn, this fear leads to low morale and poor patient care among nurses. The literature about care giving reveals that stigma and discrimination at health facilities result from fear of infection, mostly due to lack of in-depth and up-to-date knowledge about aspects of HIV / AIDS, such as modes of transmission and how the disease progresses (Brimlow, Cook, & Seaton, 2003; Brown *et al.*, 2003) However, health workers' fears are not unfounded; their fears are based on real risks due to inadequate access to universal precautions; such as gloves, sharps, disposal post-exposure prophylaxis (PEP), and safe blood collection kits (Brown *et al.*, 2003). Like some of their clients, they may be reluctant to test themselves for HIV. This may consequently be projected onto their other patients, particularly the ones who are living with HIV and AIDS.

It is estimated that worldwide about 1 000 health care workers are exposed to HIV each year. However, the World Health Organisation (WHO) estimates that needle stick injuries account for only 2.5% of HIV cases in health workers around the world. While sexual transmission undoubtedly accounts for the vast majority of cases, it is becoming clear that HIV programmes have not paid sufficient attention to transmission in health settings. The number of cases of HIV infection through medical transmission is certainly not trivial (WHO, 2006).

A study conducted in South Africa by Shisana *et al.* (2002) revealed that the possibility of becoming infected with HIV was a major concern for nurses. The extent of fear of infection causes 16% of nurses to consider alternative employment, particularly the ones working in trauma units. Similarly, the fear of contracting HIV through needle stick injuries was also revealed as a concern among nurses although they had reported that they were adhering to universal of precautionary measures.

However, nurses entertain a biased view of their own risks, by considering risks only from occupational exposure.

- **Judgemental and moralistic attitudes**

HIV remains subjected to stigmatisation because it carries many symbolic associations with danger, attribution of contagion, incurability, immorality, and punishment for sinful acts are common in many affected societies (Campbell, Nair, Maimane, and Nicholson, 2007). Any person diagnosed with HIV is perceived to be immoral. Furthermore, beliefs about AIDS as a “polluted disease” reflect people’s negative evaluations of the way in which HIV enters the body (Campbell *et al.*, (2007). Studies have demonstrated that the assumption that people living with HIV have conducted themselves in some improper or immoral way contributes towards nurses’ negative attitudes and permeates client provider interaction (Banteryerga *et al.*, 2004; Ogden & Nyblade, 2005; Erikson & Ramakant, 2005). An evaluative literature review in Sub-Saharan Africa revealed that a cultural construction of HIV and AIDS based on beliefs about contamination, sexuality, and religion plays a crucial role and contributes to the strength of distancing reactions and discrimination by enhancing inequality (Mbonu, Van den Borne, & De Vries, 2009).

A study in Cape Town showed that sexually transmitted infections (STIs) are also considered to be agents of contamination or pollution in a study about HIV / AIDS prevention among African traditional healers (Kalichman & Simbayi, 2004). This polluting quality of HIV / AIDS and fear of the disease are translated into stigmatising responses (Uys, Chirwa, & Dlamini, 2005) and people living with HIV were said to have deserved their illness, since they are regarded as promiscuous men and women (Famoroti, Fernandes, & Chima, 2013). Women are particularly stigmatised as prostitutes with more than half of the respondents in the study agreeing that women were responsible for the spread of HIV in communities (Famoroti *et al.*, 2013).

- **HIV stigma and working conditions**

Studies in Sub Saharan Africa reveal that nurses face unprecedented challenges in their working environment due to HIV / AIDS particularly in low resource countries (Leow, Groen, Bae, Adisa, & Kingham, 2012; Shisana et al, 2002). Some of the problems identified in the health system include inappropriate infrastructure, shortages of essential medical supplies, staff shortages, lack of adequate training in HIV and AIDS care and management, and lack of support from management (Banteyerga *et al.*, 2004 Shisana *et al.*, 2002; Hall, 2007). A countrywide survey in South Africa assessed the impact of HIV / AIDS on health services, showed that patients and health workers were at risk of hospital acquired infection(nosocomial infection) due to the lack of equipment to implement universal precautions (Shisana *et al.*, 2002). According to Tshitangano, (2013), unsatisfactory working conditions, lack of safety, and resources in the workplace exposed health care workers not only to the risk of HIV but also to other chemicals and diseases such as TB, as well as Hepatitis B and C. Furthermore, the findings of another study in a rural setting of the Limpopo Province revealed that TB is the most common cause of hospital-acquired infection and accounts for four-fifths of all cases reported to the Compensation Commission (Malangu & Legothoane, 2012).

The lack of protective and other materials needed to treat and prevent the spread of HIV, according to Reis, Heisler, Amowitz, Moreland, Mafeni, Nyammele, & Lacopino, (2005), contributes to discriminatory behaviour in two ways. Firstly, nurses who lack adequate protection may fear people living with HIV and fear may lead to discrimination. Secondly, a lack of resources also results in differential practices that may contribute to stigmatisation of people living with HIV. However, one of the findings from a study in China shows that the more institutional support providers are perceived to have, the less discriminatory intent they would exhibit toward people living with HIV and AIDS. With access to sufficient resources of preventive measures; such as sterile rubber gloves, working autoclaves, and access to free counselling post occupational exposure, providers may become less anxious about HIV infection and, therefore, would be inclined to have a less discriminatory attitude toward treating HIV-positive patients (LI, Wu, Wu, Zhaoc, Jia, & Yan, 2007). However, while the availability of HIV protective equipment is essential to the

delivery of safe surgical care and protection of both patients and providers, ensuring that health care providers are properly trained in the use of surgical safety equipment and universal precautions are of paramount importance (Leow, et al., 2012).

- **HIV stigma and lack of knowledge**

Many nurses generally regard themselves as healers (Lehmann & Zulu, 2005). However, the complex problems presented by AIDS patients cause providers to feel a sense of helplessness about providing care (Shisana *et al.*, 2002). According to Erikson and Ramakant (2005), clinical helplessness influences health care workers' reaction to PLWHA; this reaction operates on several levels. Firstly, health care workers are powerless to cure HIV and they are often unable to alleviate psychological and physical pain of PLWHA. Secondly, many are not trained to provide emotional support to PLWHA. Thirdly, health care workers at severely affected facilities have to deal with the impact of HIV in their own communities. These perceptions, in turn, may provoke a backlash that leads to stigmatisation (Shisana *et al.*, 2002).

In Cape Town, similar results have been found by Lehman and Zulu (2005). Most nurses experienced that they lacked appropriate skills to deal effectively with HIV clients in the current study due to lack of training in HIV. The researcher found that within the participating facilities, only two out of ten nurses had undergone management of HIV or counselling training. Lack of adequate training and inability to answer clients' questions satisfactorily was also reported in a study conducted in Ethiopia (Banteyerga, Keanu, Abebe, Alemayehu, Fiseha, & Asazene, 2004). This in turn leads to lack of confidence and thus causes a backlash that results in stigmatising their patients.

A study conducted in rural Limpopo, revealed that nurses who were trained in HIV and AIDS reported that nurses who had not been trained on HIV and AIDS had discriminatory practices against patients living with HIV and AIDS in the wards (Maluleke, Manganye, and Lebeso, 2012). Discriminatory practices against PLWHA by nurses violate the ethical principles of confidentiality, because more often than not, such practices are accompanied by utterances that often give away the diagnosis of the patient (Maluleke, *et al.*, 2012). Similarly, a study in the North West

Province of South Africa found that nurses' attitudes are mostly negative towards HIV-positive patients due to inability to internalise knowledge, which lead to negative perceptions of the patients (Deetlefs *et al.*, 2003). However, in contrast, another study in South Africa found that nursing students demonstrate positive attitudes towards patients who are infected with HIV and are willing to provide care to such patients (Sehume *et al.*, 2012). The difference between their findings and the present study could be due to the fact that this study was conducted in an area of high HIV prevalence in South Africa. Most respondents from this high HIV prevalent area could have experienced caring for family members and ill relatives. More tolerant attitudes prevail when one has previously cared for a family member who is HIV-positive (Letamo, 2003).

## **2.6 Impact of HIV on prevention**

HIV stigma is considered a barrier to effective HIV prevention and treatment programmes. HIV stigma is blamed for low uptake of and poor adherence to prevention and treatment services. For example, testing for HIV is the first essential step in protecting one's health. Whatever the result, people who take the test are more likely to practice safer sex or injecting practices. And people who know they are HIV positive can access treatment and maintain a better quality of life. However, a large number of people living with HIV have not been tested.

While many people do not test because they are afraid of learning they are suffering from a condition they consider "fatal" in spite of the availability of antiretroviral treatment. Many of those who know are at risk are dissuaded by fear of being identified as HIV- positive due to promiscuity or as a member of the stigmatised group such as homosexual men. In other words HIV stigma reduces the motivation to get tested and to look after one's own health thus, allowing HIV to spread with serious consequences to the individual and the community (UNAIDS, 2003).

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.1 INTRODUCTION**

This chapter describes the research methodology that was used in the course of collecting data. It presents the methods, and factors that contribute to HIV-related stigma among nurses. The research design, research site, population and sampling method, as well as the data collection and analysis techniques are described at length in this chapter. In addition to the academic rigor, these research activities are informing the research findings. Ethical considerations and limitations to the study are also discussed in this chapter.

#### **3.2 STUDY SETTING**

The study was conducted at the Polokwane-Mankweng Hospital Complex, in the Limpopo Province, South Africa. The Polokwane-Mankweng Hospital Complex comprises of two hospital campuses, with Mankweng in a rural area and Polokwane in an urban area. These campuses are situated 35 km apart.

The Polokwane Hospital, the primary site of this study, is situated in the north-eastern part of the city of Polokwane and it is a tertiary institution with 42 sections and is highly specialising in some areas, such as nuclear and radiation oncology. All the peripheral hospitals in all districts of the Limpopo Province refer their patients to the Polokwane Hospital. The complex has 1 500 staff members; 544 are nurses and the remaining numbers are managers and support service personnel. In addition, there are 570 active beds.

The Mankweng Hospital is located about 30 kilometres east of Polokwane, at a village called Mamotintana. This health care facility is about one kilometre from the University of Limpopo and has 478 active beds. The complex has 1 363 staff members; 500 are nurses and the remaining numbers are managers and support service personnel.

### **3.3 STUDY DESIGN AND APPROACH**

Research design is an outline, plan, or a strategy that specify the procedure to be used on seeking an answer to research question (Polit and Beck, 2006). It specifies how the data will be collected and analysed. For this study the researcher, selected a descriptive cross sectional quantitative study to determine the factors that contributed to the stigmatisation of people living with HIV by nurses at the Polokwane Hospital Campus in Limpopo, South Africa.

It is a quantitative study because it involved identifying the factors that influenced stigmatisation of people living with HIV by nurses by collecting numerical data which were analysed using statistically based methods. According to Polit and Beck (2006), quantitative research relies primarily on the collection of numerical data and assignment of numerical values to objects to represent the kind or amount of characteristics of those objects or events. This research approach is a formal, objective and systematic process used to obtain information and measures the phenomena being studied on numerical scales (Polit and Beck, 2006). This research method is used to test the interaction between variables that have been determined.

It is a descriptive study as it described the features and characteristics of the particular population that was studied. The research obtained data that provided a detailed account of the factors that contributed to HIV stigma among nurses. According to de Vos, Strydom, Fouche and Delpont (2002), a descriptive study is one that ascertain existing situations of a particular characteristics, the frequency of occurrences as well as various ways in which it occurs. In this study, more insight gained into the factors that contributed to HIV–related stigma among nurses.

Lastly, it was a cross-sectional study as numerous data were collected from participants in a single period of time that answered questions about the attitudes and practices of the nurses being studied.

## **3.4 DATA COLLECTION METHODS AND PROCEDURES**

### **3.4.1 STUDY POPULATION**

The study population refers to the group of people on which the research is conducted and on which generalisation is made following the conclusion of the study (de Vos et al 2002). Brink and Brink (2006) defines population as a complete set of persons or objects that possess some common characteristics that are relevant to the study. The population in this study comprised of all nurses who worked in the Polokwane Hospital campus who agreed to participate in the study.

### **3.4.2 SAMPLING AND SAMPLING TECHNIQUES**

Sampling is the process of selecting a portion of the population to represent the entire population (de Vos, 2002).

This study used a non-probability sampling method, which does not give all cases in the population equal chances to be selected as a research participant. Convenience sampling is a non-probability sampling technique whereby the sample of participants selected is based on convenience and includes individuals who are readily available (Polit & Beck, 2012). It only includes individuals who are willing to take part. That is, any person that the researcher meets and qualify based on the inclusion criteria of the study gets selected. However, while, the researcher finds it comfortable to recruit participants using this method, the risks of introducing bias into the study are quite higher than when using other sampling methods are used. However one disadvantage of nonprobability sampling lies in the limitation in generalization about the entire population.

- **Inclusion**

The inclusion criteria for this study were nurses allocated in different health care units at the Polokwane Hospital Campus during the time of the study who agreed to be part of the study when approached, while those who opted not to participate were excluded from the study.

- **Sample size**

The sample of this study comprised of 124 participants. This figure was arrived at by following Carnell, Jr. (1985). Assertion of the adoption of the adoption of convention on sample size, according to which a sample of one-tenth (10%) of the size of the population is regarded as reasonable. A decision was therefore based on this information, to sample 10% of the 544 nurses at the Polokwane Hospital. The 10% yielded 54 participants. The number was doubled to cover issues of non-response. Consequently a figure of 124 was arrived at.

### **3.5 METHODS OF DATA COLLECTION**

Data collection refers to the gathering of information to address the research problem (Polit and Beck, 2006). Quantitative data collection methods often employ measuring instruments.

#### **3.5.1 Data collection tool**

A self-administered questionnaire was the data collection method in this study. The researcher designed the questionnaire in the form of a five-point Likert scale. When responding to this Likert scale survey instrument respondents were asked how strongly they agreed or disagreed with each statement, with numeric values allocated to the response, such as Strongly agree (5) Agree (4) Neutral (3) Disagree(2) Strongly disagree(1) survey instrument tool was a purposely designed structured. A questionnaire is a vital tool for quantitative research. It is a set of questions used to elicit responses from respondents. According to Polit and Beck, (2006), questionnaires are cost-effective, produce quick results, offer a great assurance of anonymity and less opportunity for bias, can be completed at the respondents' convenience.

The questionnaire consisted of closed questions. Respondents had to choose options of strongly agree, agree, neutral disagree or strongly disagree and tick in the appropriate box.

The questionnaire was in English and consisted of two parts: the first part was focusing on the socio-demographic data and the second part sought to get

respondents' attitudes, moral beliefs and opinions on statements about how individuals got infected (Mode of transmission), the availability of supportive structures and observation of stigmatising practices of colleagues towards people living with HIV.

### **3.5.2 Pre-testing the research instrument**

A pre-test is a trial of a research instrument to determine whether it is clearly worded, And free from ambiguity, bias, and measured what it is supposed to measure (Polit and Beck, 2006). A pre-test was conducted with respondents similar to the study sample, but excluded from the actual study, to determine the clarity of the items and consistency of the responses.

In order to determine whether the research questions would be understandable to the respondents, a pre -test was done on 20 nurses at Mankweng and to monitor the time it would take to fill in the questionnaire. The time taken was about 20 minutes. The researcher did not change the format of the questionnaire after the respondents had completed it so that uniformity could be maintained in the major study.

### **3.5.3 Administration of the questionnaire**

The researcher secured an appointment with the nursing service manager at the Polokwane Hospital Campus for collection of data related to factors contributing to HIV stigma amongst nurses. The nursing services manager granted permission to collect data from the different units. The nursing services manager then informed all the managers of the different units about the study and the presence of the researcher in the hospital.

The nurses were approached, recruited and given questionnaires as they were met during tea or lunch breaks thereafter, the researcher approached any nurse that she met in the corridor, canteen or nurses' rest room during lunch breaks. She would first greet the nurse, then introduce herself and explain the purpose of the study and if the nurse agreed to participate she would then give her the consent form and the questionnaire for the respondent to complete. Each respondent was allowed

approximately 20 minutes to answer the questionnaire. The researcher minimized bias by setting herself away from the respondents while they were completing the questionnaires, but remained within reach to clarify any problems when the need arose. A total of 130 questionnaires were distributed but only 124 were filled in fully others were spoilt and not returned. The overall response rate was 95%.

### **3.5.4 Data analysis**

Data analysis involves examining, sorting, categorizing, evaluating, comparing, synthesizing and contemplating the coded data, as well as reviewing the raw data and recorded data.

Before data entry, each questionnaire was coded and cleared. The collected data was then entered into Microsoft Excel spreadsheet; where it was edited and then imported into SPSS software program for cleaning, management and analysis. Frequency distribution and descriptive statistics were used to summarise the numerical data obtained through questionnaires. Charts, graphs, frequency distribution tables provided a graphic presentation of data and turned it into valuable information.

HIV-related stigma were expressed as mean and standard deviation as well as the median. Some of the data were categorised in order to calculate percentages and proportions. Possible associations between independent variables such as social demographic data and the dependant variables such as stigma as well as factors contributing to HIV-related stigma among nurses were also determined using bivariate analysis like cross-tabulation and Chi-square test. Logic regression was utilised in determining the confidence Intervals at 95% level of significance in order to predict feasible association among variables at 0.05 level of significance and P-values less than 0.05 considered as statistically significant in accordance to the null hypothesis

## **3.6 VALIDITY AND RELIABILITY**

### **3.6.1 Reliability**

Reliability of the study was ensured by consulting with the supervisor for the relevance of measured variables. According to Polit and Beck (2006), reliability refers to the degree of consistency with which an instrument measures the attribute it is designed to measure. The questionnaire was also pre-tested nurses in Mankweng hospital who were not part of the study. The aim of the pre-test study was also test reliability by:

- Ascertaining appropriateness and suitability of the questions;
- Clarifying and evaluating the appropriateness of the questions toward answering the research question the degree of consistency with which the tool measures the attribute it is supposed to measure (de Vos *et al.*, 2002). If a study and its results are reliable, other researchers using the same method will obtain the same results.

### **3.6.2 Validity**

The validity refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration. Validity can be subcategorised as external and internal validity.

External validity refers to the extent to which the results can be generalised beyond the sample represents the population. The validity of this study may be low in that the results may not be generalised to the larger population due to using a nonprobability method of sampling. The questionnaire was submitted to the statistician to check on the design and format of the questionnaire for content validity and to analyse and determine the adequacy of the study content.

## **3.7 ETHICAL CONSIDERATION**

Permission and ethical clearance to conduct the study was obtained from the University of Limpopo Ethics Committee (Appendix A). Permission to conduct the

study was obtained from the Limpopo Provincial Department of Health and Social Development, as well as from the hospital management and the nursing service managers of the two hospitals (Appendix B).

The researcher also invited individual respondents to participate in the study by first explaining what the study was about and what their participation entailed. Those nurses who were willing to participate received an informed consent form to sign. In general, the following principles pertaining to the study were considered and observed:

### **3.7.1 Principle of beneficence**

The principle of beneficence involves maximising possible benefits and minimising possible harm to research respondents (Larry, Christensen, Burke, & Turner, 2011). No physical harm resulted from completing questionnaires, but some psychological discomfort might have resulted from the nature of some questions. The researcher was always at hand to assist however no respondent came forward with any complaint.

### **3.7.2 Principle of justice**

The principle of justice demands equitable selection of respondents while avoiding the coercion of respondents into participating (Larry *et al.*, 2011). The researcher ensured that all respondents were treated equally and that the same information was distributed to all of them equally.

### **3.7.3 Principle of autonomy**

Research must respect and protect the rights of and dignity of participants. The principle of autonomy seeks to ensure the right of an individual to determine what activities they will or will not participate in (Larry *et al.*, 2011). In this study, the principle of the autonomy principle was adhered to by obtaining informed consent from the respondents of the study. In other words, the researcher informed the respondents that participation was voluntary and that they were at liberty to withdraw at any time if they wished to do so. The respondents were given information about the study and they were allowed enough time to decide whether to take part or not.

#### **3.7.4 Principle of non-maleficence**

Non-maleficence means doing no harm (Larry *et al.*, 2011). The principle of maleficence seeks to ensure that research should not cause harm to respondents in particular or to people in general. The researcher ensured that confidentiality was maintained and the privacy of participants respected with the aim of not embarrassing the respondents with regard to their participation. The report does not indicate identifiable respondent names or information that might cause emotional disturbance to them.

## CHAPTER 4

### DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

#### 4.1 INTRODUCTION

A quantitative descriptive research design was used in this study to determine the factors that contributed to HIV and AIDS stigma among nurses at the Polokwane Hospital Camus. This chapter presents an analysis of the collected data from 124 respondents who had completed a self-administered survey.

#### 4.2 SOCIO-DEMOGRAPHIC DATA

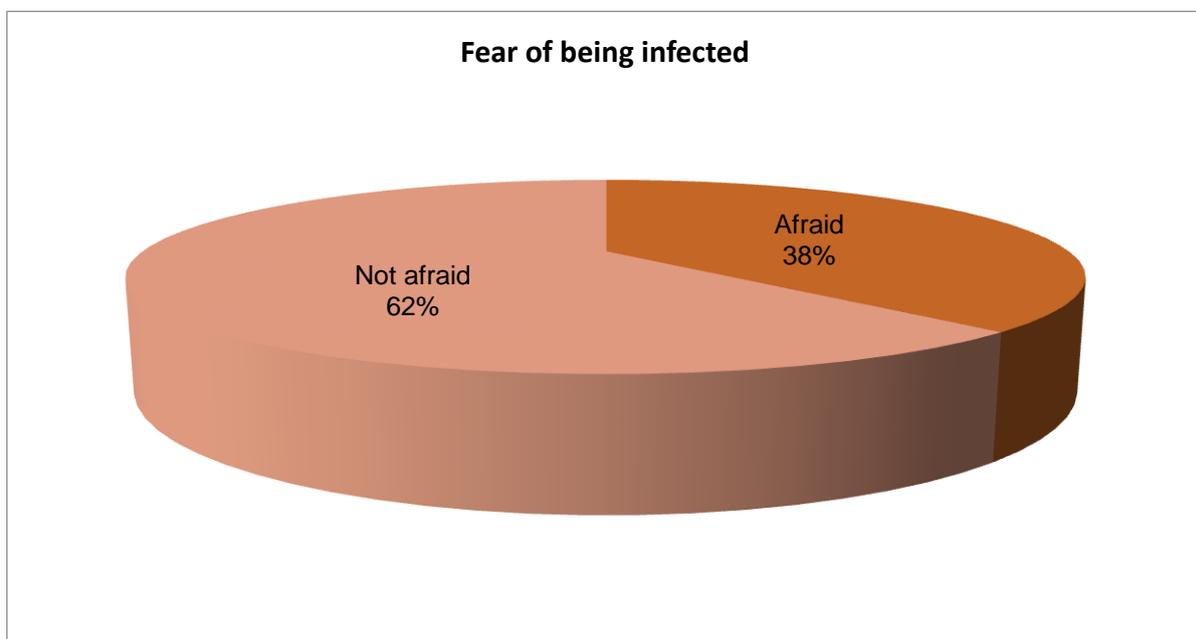
**Table 4.1: Socio-demographic profile of respondents (n = 124)**

Variables (n = 124)		Frequencies (n)	Percentage (%)
Age group	No response	1	0.8
	20 – 29 years	26	21.0
	30 – 39 years	38	30.6
	40 – 49 years	44	35.4
	50 – 59 years	15	12.1
Gender	Male	22	17.7
	Female	102	82.3
Ethnic Group	Sesotho	105	84.7
	Nguni	15	12.1
	Other	4	3.2
Level of Education	Matric	17	13.7
	Diploma	74	59.7
	Degree	33	26.6
Religion	Christian	119	96.0
	Muslim	2	1.6
	Other	3	2.4

Table 4.1 above shows that of the 124 respondents, more than half (52%) were below the age 40 years. Women were in the majority (82.3%). Most of the respondents (59.7%) had a diploma or occupational certificate. The predominant home language of the respondents was Sesotho. Christians were in the majority (96%).

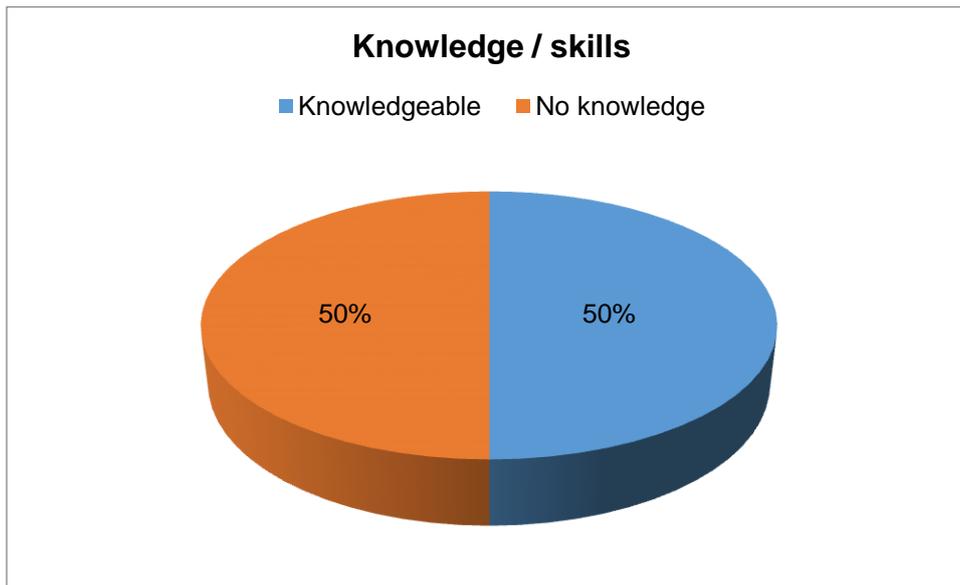
### 4.3 FACTORS CONTRIBUTING TO HIV AND AIDS STIGMA

This part of the results presents the various factors contributing to stigmatisation of people (patients) living with or suspected of being infected with HIV.



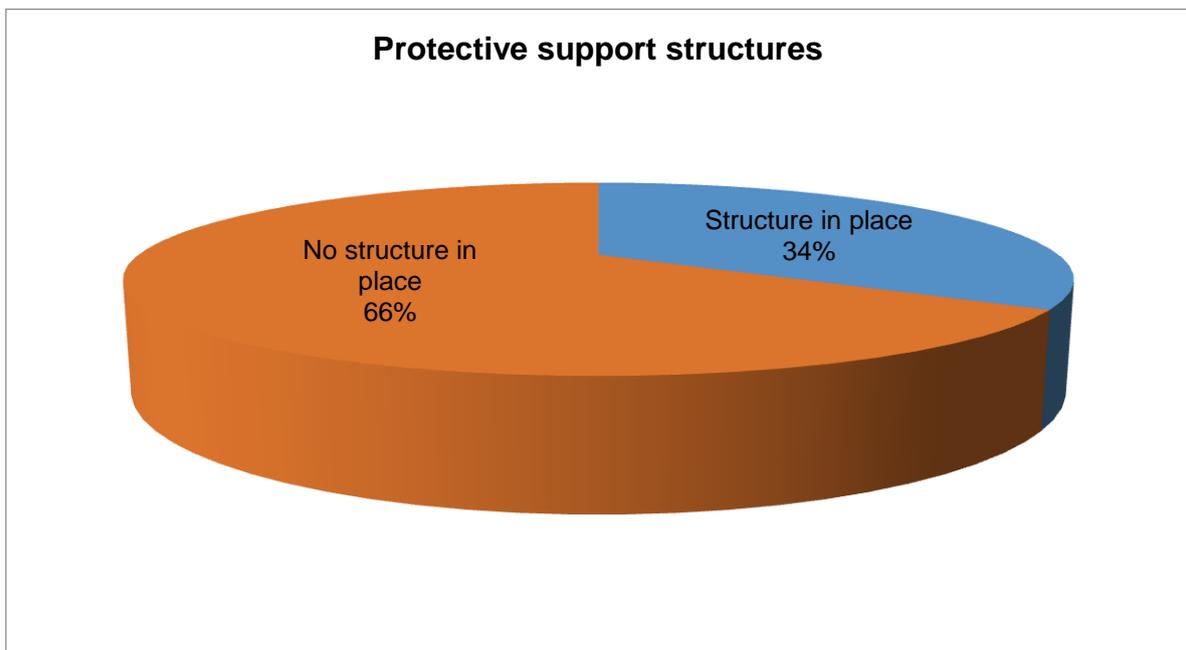
**Figure 4.1: Respondents' fear of being infected by HIV positive patients**

Figure 4.1 shows the majority of respondents (62.1%) indicated that they were not afraid of being infected by their patients while 37.9% were uncomfortable with and afraid of being infected while taking care of people living with HIV.



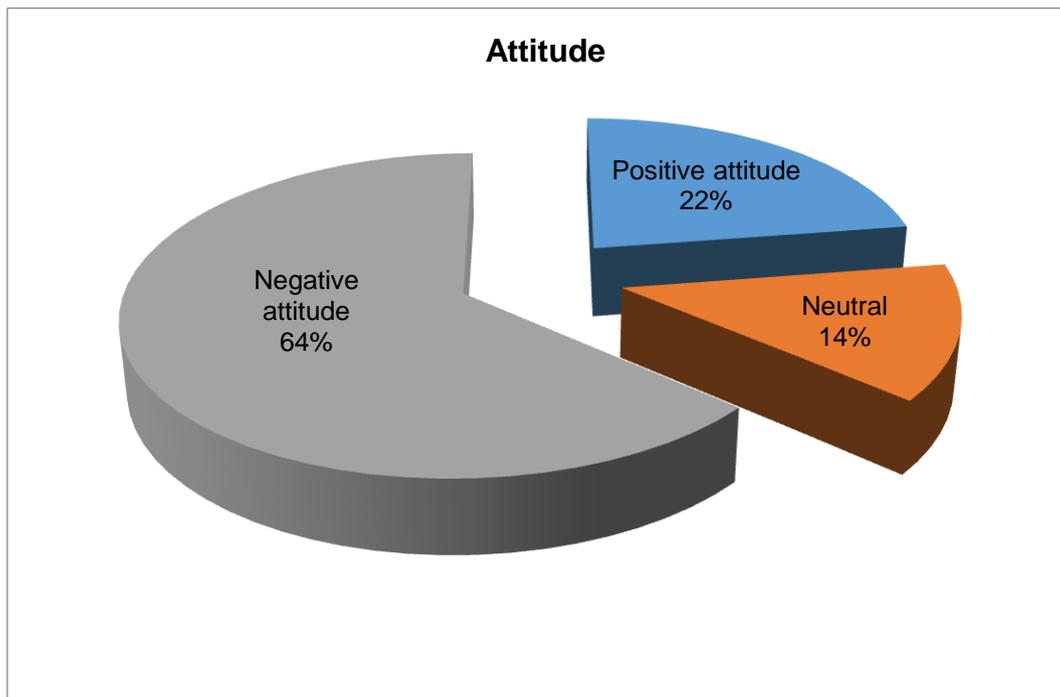
**Figure 4.2: Respondents' knowledge / skills with regard to caring for people living with HIV and AIDS**

Figure 4.2 shows that half of the respondents indicated that they had the necessary skills and knowledge to take care of people living with HIV while the other 50% felt they did not have the necessary skills and knowledge.



**Figure 4.3: Availability of preventive support structures**

Figure 4.3 shows that the majority (66.1%) of the respondents felt that there were no adequate structures in place to protect them from infection in the workplace while only 33.9% felt that there were adequate structures in place for protecting them against infection.



**Figure 4.4: Respondents' attitude towards people living with HIV and AIDS**

Figure 4.4 shows that 64% of the respondents acknowledged their negative attitude towards people living with HIV and AIDS; 22% indicated a positive attitude while 14% were neutral.

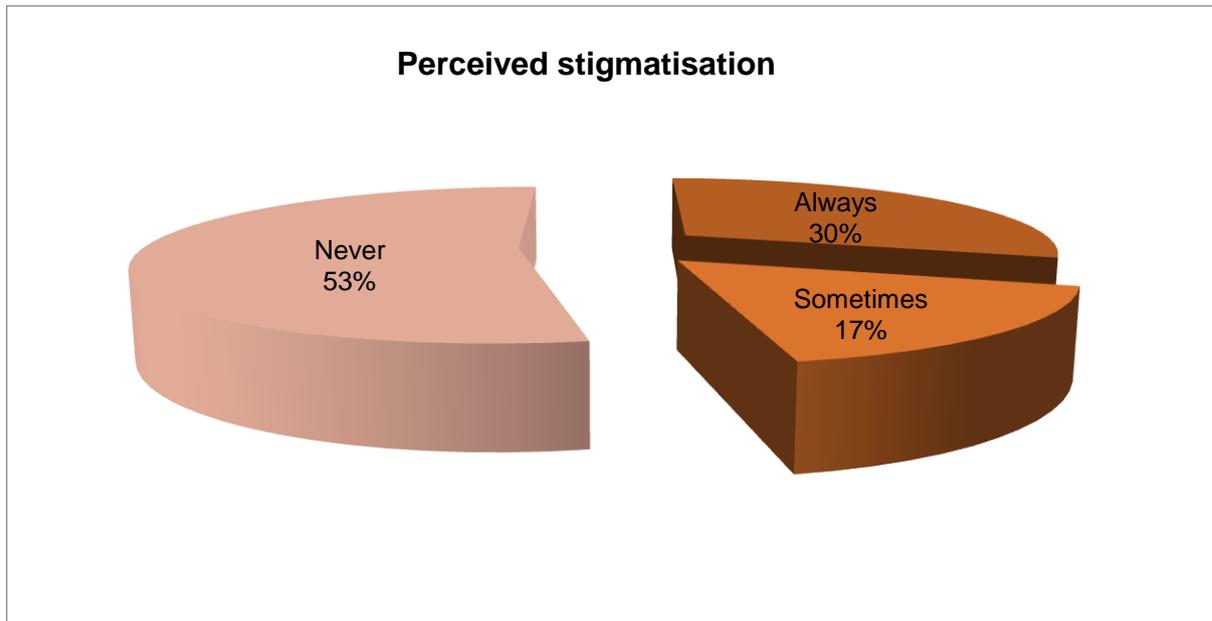


**Figure 4.5: Respondents' reactions with regard to moral beliefs about the mode of transmission**

Figure 4.5 above shows that 51% of the respondents did not believe that people who are infected with HIV through sex and intravenous drug use should be ashamed and rejected while 49% believed (were judgemental) that people who contracted HIV through sex and intravenous drug use should be rejected.

#### 4.4 THE CONTRIBUTION TO STIGMATISATION OF KNOWLEDGE, STRUCTURAL FACTORS, ATTITUDE, AND BELIEFS

##### 4.4.1 Perceived stigmatisation



**Figure 4.6: Perceived stigmatisation as observed by colleagues**

Figure 4.6 above shows perceived stigmatisation as observed by colleagues. More than half of the respondents (53.2%) indicated that they had never observed any of their colleagues stigmatising patients, i.e. being rude to, or openly discussing patients living with or suspected of having HIV, 29.8% indicated that they observed it always, while 16.9% indicated that they sometimes observed stigmatisation by colleagues.

##### 4.4.2 Association between self-reported factors of fear, knowledge, structural factors, and beliefs and stigmatisation

This part of the results shows the test of association between the self-reported factors of fear, knowledge, structural factors, as well as beliefs and stigmatisation.

**Table 4.2: Cross tabulation between fear and stigmatisation**

		Stigmatisation			P value
		Always	Sometimes	Never	
Fear	Afraid n = 47	12 25.5%	9 19.2%	26 55.3%	P = 0.687
	Not Afraid n = 77	25 32.5%	12 15.6%	40 51.9%	

Table 4.2 indicates that there was no significant relationship between self-reported fear of the respondents and stigmatisation.

**Table 4.3: Cross tabulation between knowledge / skills with regard to caring for patients who are HIV positive and stigmatisation**

		Stigmatisation			P value
		Always	Sometimes	Never	
Knowledge	Knowledgeable n = 62	21 33.9%	10 16.1%	31 31.0%	P = 0.617
	No knowledge n = 62	16 25.8%	11 17.7%	35 56.5%	

Table 4.3 reveals no significant relationship between knowledge and stigmatisation.

**Table 4.4: Cross tabulation between availability of support structures and stigmatisation**

		Stigmatisation			P value
		Always	Sometimes	Never	
Availability of prevention structures	Preventive structures in place (n = 42)	14 33.3%	3 7.1%	25 59.5%	P = 0.115

		Stigmatisation			P value
		Always	Sometimes	Never	
	No preventive structures in place (n = 82)	23 28.0%	18 22.0%	41 50.0%	

Table 4.4 indicates that there was no significant relationship between the availability of supportive structures for prevention of infection and stigmatisation.

**Table 4.5: Cross tabulation between attitude and stigmatisation**

		Stigmatisation			P value
		Always	Sometimes	Never	
Attitude	Positive attitude n = 28	8 28.6%	3 10.7%	17 60.7%	P = 0.586
	Neutral n = 17	3 17.7%	4 23.5%	10 58.8%	
	Negative attitude n = 79	26 33.0%	14 17.7%	39 49.3%	

Table 4.5 shows that there was no significant relationship between attitude and stigmatisation (P = 0.586).

**Table 4.6: Cross tabulation between moral beliefs and stigmatisation**

		Stigmatisation			P value
		Always	Sometimes	Never	
Moral beliefs	Believe n = 61	17 27.9%	12 19.7%	32 52.4%	P = 0.705
	Don't believe n = 63	20 31.7%	9 14.3%	34 54.0%	

Table 4.6 shows that there was no significant relationship between moral beliefs and stigmatisation.

#### 4.4.3 Association between self-reported factors of fear, knowledge, structural factors and beliefs of respondents and their age categories

**Table 4.7 Cross tabulation between fear and age group categories**

		Age categories					P value
		No response	20 – 29	30 – 39	40 – 49	50 – 59	
Fear	Afraid n = 47	1 2.1%	9 19.1%	14 29.8%	17 36.2%	6 12.8%	P = 0.770
	Not afraid n = 77	0 0.0%	17 22.0%	24 31.2%	27 35.1%	9 11.7%	

Table 4.7 indicates that age group was not statistically related to the self-reported moral beliefs of respondents (P = 0.770).

**Table 4.8 Cross tabulation between knowledge / skills of caring for PLWHA and age categories of respondents**

		Age categories					P value
		No response	20 – 29	30 – 39	40 – 49	50 – 59	
Knowledge	Knowledgeable n = 62	1 1.6%	14 22.6%	21 33.9%	19 30.6%	7 11.3%	P = 0.652
	No knowledge n = 62	0 0.0%	12 19.3%	17 27.4%	25 40.3%	8 13.0%	

Table 4.8 reveals that age group was not statistically related to the self-reported knowledge of respondents (P = 0.0652).

**Table 4.9: Cross tabulation between availability of structural support and age categories of respondents**

		Age categories					P value
		No response	20 – 29	30 – 39	40 – 49	50 – 59	
Availability of preventive structural support	Structural support in place n = 42	0 0.0%	10 23.8%	13 31.0%	12 28.6%	7 16.6%	P = 0.607
	No structural support in place n = 82	1 1.2%	16 19.5%	25 30.5%	32 39.0%	8 9.8%	

Table 4.9 shows that there was no significant relationship between lack of support structures for prevention of infection and age categories of respondents (P = 0.607).

**Table 4.10: Cross tabulation between attitude and age categories of respondents**

		Age categories					P value
		No response	20 – 29	30 – 39	40 – 49	50 – 59	
Attitude	Positive attitude n = 28	1 3.6%	5 17.9%	7 25.0%	10 35.7%	5 17.9%	P = 0.461
	Neutral n = 17	0 0.0%	3 17.6%	7 41.2%	7 41.2%	0 0.0%	
	Negative attitude n = 79	0 0.0%	18 22.8%	24 30.4%	27 34.2%	10 12.6%	

Table 4.10 indicates that age group was not statistically related to the attitude of respondents (P = 0.461).

**Table 4.11: Cross tabulation between beliefs and age categories of respondents**

		Age categories					P value
		No response	20 – 29	30 – 39	40 – 49	50 – 59	
Belief	Believe n = 61	1 1.6%	12 19.7%	19 31.1%	22 36.1%	7 11.5%	P = 0.880
	Don't believe n = 63	0 0.0%	14 22.2%	19 30.1%	22 35.0%	8 12.7%	

Table 4.11 shows that age group was not statistically related to the self-reported beliefs of respondents (P = 0.880).

**Table 4.12: Cross tabulation between stigmatisation and age categories of respondents**

		Age categories					P value
		No response	20 – 29	30 – 39	40 – 49	50 – 59	
Stigmatisation	Always n = 37	1 2.7%	8 21.6%	8 21.6%	16 43.2%	4 10.8%	P = 0.360
	Sometimes n = 21	0 0.0%	3 14.3%	8 38.1%	5 23.8%	5 23.8%	
	Never n = 66	0 0.0%	15 22.7%	22 33.3%	23 34.9%	6 9.1%	

Table 4.12 shows that age group was not statistically related to the stigmatising behaviour of respondents (P = 0.360).

## **CHAPTER 5**

### **DISCUSSION, LIMITATIONS, RECOMMENDATIONS, AND CONCLUSION**

#### **5.1 INTRODUCTION**

This chapter provides a discussion of major results, recommendations, limitations, and conclusion of this study that sought to determine the factors that contribute to HIV / AIDS stigma among nurses at the Polokwane Hospital Campus in the Capricorn District of the Limpopo Province, South Africa. The findings of this study are discussed according to the objectives of the study.

##### ***5.1.1 Objective 1: Socio-demographic profile of respondents***

The nurse respondents comprised three categories, namely enrolled nursing assistants, enrolled nurses, and registered nurses.

The results revealed that the majority of respondents were females compared to males. The nursing profession is dominated by females, not only in South Africa and also worldwide. Therefore, it means that these females would be more nurturing and treat all patients equally. A study by Shabani (2011) reports that nurses have a positive attitude towards HIV / AIDS positive patients and nurses who have worked for more years exhibit a more positive attitude compared to the ones with less years of experience. Also; Sehume, Zungu, and Hoque (2012) report that the majority of nursing students are willing to care for HIV / AIDS patients, further implying that the nurses would be willing to care for the patients in this current study.

The results revealed that more than half of the respondents were < 40 years of age. It is, therefore, expected that they should have good knowledge about HIV compared to older nurses, including latest treatment strategies. Delobelle, Rawlinson, Ntuli, Malatsi, Decock, and Deporter (2009) have found that HIV / AIDS knowledge is moderately adequate and associated with nursing care and training while nurses with more work experience have good knowledge of managing patients with HIV / AIDS.

### **5.1.2 Objective 2: To determine the existence of perceived stigmatisation by nurses towards people living with HIV and AIDS**

Nurses were asked whether they had observed their fellow health workers being rude to patients suspected of an HIV-positive status, or openly discussing the status of patients who were HIV-positive.

The results of this study revealed that stigmatising behaviour existed to some extent among the nurses. A third of respondents indicated that they had always observed their colleagues openly discussing the status of people living with HIV, one-fifth indicated having observed it sometimes, and more than half of the respondents indicated that they had never observed the occurrence. Similar results have been found in a study in Ethiopia where health providers admit to gossiping about suspected and confirmed HIV infected individuals. They also openly discuss anyone with clinical symptoms similar to the ones seen in AIDS patients (Banteyerga *et al.*, 2004).

The results of this study showed that when attitude and stigmatisation were compared, stigma existed among all three groups; namely the ones who had reported their own positive, neutral, and negative attitudes. This is a cause for concern even though no relationship of statistical significance was found between attitude and stigmatisation. Nurses need to be provided with education and training. According to study in a rural part of the Limpopo Province, nurses who were trained in HIV and AIDS reported that their colleagues who had not been trained on HIV and AIDS practised discriminatory behaviour towards patients living with HIV and AIDS in the wards (Manganyi, Maluleke, and Lebeso, 2013). Discriminatory practices towards PLWHA by nurses violate the ethical principles of confidentiality, because more often than not, such practices are accompanied by utterances that often reveal the diagnosis of the patient (Manganyi *et al.*, 2013)

### **5.1.3 Objective 3: To identify the factors of HIV / AIDS-related stigma among nurses at the Polokwane Hospital Campus**

The results of this study revealed a number of factors that contributed to HIV-related stigma among nurses at the Polokwane Hospital Campus. Those factors ranged from the fear of being infected with HIV; lack of knowledge; lack of protective

structures, attitudinal and values driven factors, including discriminatory practices; to behavioural factors. The identified factors contributed to HIV-related stigma towards people living with HIV by nurses at the Polokwane Hospital Campus.

### **Fear of being infected**

The results of this study revealed that some of the nurses reported their fear of being infected by their patients which resulted in some of them feeling uncomfortable about taking care people living with HIV and AIDS. Similarly, a study in KwaZulu-Natal by Ncama and Uys (2003) has found that most nurses have a fear of contracting HIV from their work environment despite the available precautionary measures. Their main source of fear is needle stick injuries.

The significance of the fear of contracting HIV and AIDS went beyond the working environment to include concern about family. This fear is also confirmed in a Cape Town study by Lehman and Zulu (2005) where nurses speak about their fears of occupational exposure and the impact of this stress on their family lives and sexual relationships. Fuelled by stigma and fear, they are often not even allowed to touch food at home while they are waiting for test results after occupational exposure to HIV (Lehman & Zulu, 2005). This fear of occupational exposure to HIV is also confirmed by other studies that report some nurses are angered by being continually exposed to danger, having to use universal precautions that they considered to be uncomfortable, and patients who are in denial and deliberately infecting other people (Deetlefs, Greeff & Koen, 2003).

Studies have shown that fear of contagion and fear of death have clear negative effects on service providers (Brown *et al.*, 2003). According to Ncama and Uys (2003), fear of death leads to decreased willingness to care for HIV-positive patients, thus compromising the quality of care because treatment is sometimes delayed as a result of fear for contracting HIV, for example restless and drunk patients are expected to settle first before any major intervention like suturing is conducted (Ncama & Uys, 2003). This is also confirmed by the results of a study by De Villiers and Ndou (2008) that also show nurses find it difficult to care for HIV and AIDS patients with the full knowledge that they are at risk of contracting HIV. The nurses have indicated that contracting HIV would mean that they will be stigmatised

because people would think that they have engaged in irresponsible sexual practices.

A study of rural nurses by Mulaudzi, Pengpid and Peltzer (2003) reports that more than half of the nurses have indicated that caring for AIDS patients is more stressful than caring for other patients. Also, nurses report a higher workload owing to HIV and AIDS; in spite of practising universal precautions, fear of occupational HIV transmission is abound, (Delobelle, *et al.* (2009). These reports from both rural and urban studies show that the fear of being infected by HIV-positive patients due to occupational exposure is the same whether a qualitative or a quantitative research design is applied.

The results of this study showed that when knowledge and stigmatisation were compared, stigmatisation was present among half of the respondents who had indicated that they had the knowledge and skills to care for HIV-positive patients. On the other hand, more than half of those who had no knowledge ever stigmatised people living with HIV. However, no statistical significance was found between knowledge and stigmatisation.

Studies have shown that there is a high correlation between ignorance of the means of HIV transmission and the fear of infection. A study in Rwanda has found that despite high levels of knowledge, more than three-quarters of nurses over-estimate the risk of becoming infected with HIV by assigning risk to at least one activity that does not pose any risk of HIV; yet, where risk has been involved, it is underestimated (Jean-Baptiste, 2008).

Stigma existed to some extent amongst those respondents who were afraid of being infected and the ones who had no fear. It was interesting that among respondents who had indicated having no knowledge or skills in caring for HIV positive patients, this study found that over half of them never stigmatised. However, no statistical significance between the fear, knowledge, structural factors, and moral beliefs and stigmatisation was found. When comparing knowledge to stigmatisation, stigmatisation was present among half of those respondents who were knowledgeable and the ones who had no knowledge. No significant relationship was found between knowledge and stigma.

## **Lack of support structures**

The lack of specific or clear guidance for the care of patients with HIV reinforces discriminatory behaviour among health workers. The results of this study revealed that two-thirds of respondents indicated that there were no support structures in place at the hospital for those health care professionals who were working with HIV positive patients. In other words, that meant that they lacked the necessary equipment and supplies to protect themselves against infection, thus making them vulnerable to HIV infection due to occupational exposure. This finding is similar to a previous countrywide survey in South Africa about the impact of HIV / AIDS on health services, which shows that patients and health workers are at risk of hospital acquired infection due to the lack of equipment to implement universal precautions (Shisana *et al.*, 2002). Another study in a rural environment of the Limpopo Province has revealed that unsatisfactory working conditions, lack of safety, and resources in the workplace expose health care workers not only to the risk of HIV but also to other chemicals and diseases; including TB, as well as Hepatitis B and C (Tshitangano, 2013). Furthermore, the findings of another study in a rural setting of the Limpopo Province have revealed that TB is the most common cause of hospital-acquired infection and accounts for four-fifths of all cases reported to the Compensation Commission (Malangu & Legothoane, 2012).

The lack of protective and other materials needed to treat and prevent the spread of HIV, according to Reis, Heisler, Amowitz, Moreland, Mafeni, Nyammele, & Lacopino, (2005), contributes to discriminatory behaviour in two ways. Firstly, nurses who lack adequate protection may fear people living with HIV and fear may lead to discrimination. Secondly, a lack of resources also results in differential practices that may contribute to stigmatisation of people living with HIV. However, one of the findings from a study in China shows that the more institutional support providers are perceived to have, the less discriminatory intent they would exhibit toward people living with HIV and AIDS. With access to sufficient resources of preventive measures; such as sterile rubber gloves, working autoclaves, and access to free counselling post occupational exposure, providers may become less anxious about HIV infection and, therefore, would be inclined to have a less discriminatory attitude toward treating HIV-positive patients (Li, Wu, Wu, Zhaoc, Jia, & Yan, 2007). The

results of this study found that when the lack of available protective structures and stigmatisation were compared, two-fifths of those respondents who had indicated that preventive support structures were not in place never stigmatised. However, no relationship of statistical significance was found between the availability of supportive preventive structures and stigmatisation.

Yet, while the availability of HIV protective equipment is essential to the delivery of safe surgical care and protection of both patients and providers, ensuring that health care providers are properly trained in the use of surgical safety equipment and universal precautions are of paramount importance (Leow, Groen, Bae, Adisa, Kingham & Kushner, 2012).

### **Lack of education and skills**

The results of this study revealed that half of the nurses had indicated that they did not have enough skills to care for patients with HIV and needed more training. In Cape Town, similar results have been found by Lehman and Zulu (2002). Most nurses experienced that they lacked appropriate skills to deal effectively with HIV clients in the current study. The researcher found that within the participating facilities, only two out of ten nurses had undergone management of HIV or counselling training. Similarly, a study in Nigeria shows that the vast majority of nurses express an interest in additional information and suggest education as a way of addressing discriminatory behaviour by their colleagues (Reis *et al.*, 2005). Another study in South Africa has found a significant correlation between increased levels of HIV / AIDS and decreased stigma (Delobelle *et al.*, 2009). This means that with appropriate education with regard to the transmission of HIV and AIDS, universal precautions, and the rights of people living with HIV and AIDS, the number of discriminatory practices are likely to decrease; thus improving patients' care and access to health services. These findings are supported by a study in Ethiopia which has found that nurses who have high basic HIV knowledge (Feyissa, Abebe, Gima, & Woldie, 2012). Furthermore, nurses who have attended training interventions about topics related to stigma and discrimination have lower stigma scores when compared to those nurses who have not attended training (Feyissa *et al.*, 2012). Knowledge about HIV has been shown to play an important role in the management of patients living with HIV (Brimlow *et al.*, 2003). Thus, gaps in knowledge and a

lack of in-depth information about HIV and AIDS fuel the fear of casual transmission that, in turn, lead to stigmatisation of people living with HIV and AIDS.

### ***Moral beliefs***

The association with specific sexual behaviour that is considered unacceptable by many people contributes to the stigma associated with HIV infection (Campbell, Nair, Maimane, & Nicholson, 2007). The results of this study revealed that slightly less than half of the respondents held beliefs that people who contracted HIV through sexual intercourse or intravenous drug use should be rebuked and rejected. Similar findings have been found in a study in KwaZulu-Natal where people living with HIV are said to have deserved their illness, since they are regarded as promiscuous men and women (Famoroti, Fernandes, & Chima, 2013). Women are particularly stigmatised as prostitutes with more than half of the respondents agreeing that women are responsible for the spread of HIV in communities (Famoroti *et al.*, 2013).. Similarly, a multi-country study conducted in Zambia, Ethiopia, Vietnam, and Tanzania reports a significant link between blame and assumed immoral behaviour (Nyblade, 2004). An evaluative literature review in Sub-Saharan Africa reveals that a cultural construction of HIV / AIDS based on beliefs about contamination, sexuality, and religion plays a crucial role and contributes to the strength of distancing reactions and discrimination by enhancing inequality (Mbonu, Van den Borne, & De Vries, 2009).

Blame and immoral behaviour is similarly reported in a multi-country study in Zambia, Ethiopia, Vietnam, and Tanzania where a third of the respondents agree with at least one of stigmatising “blame and judgement” statements, including that HIV and AIDS is punishment for bad behaviour (Ogden & Nyblade, 2005). HIV infection is commonly perceived as the result of personal choice. In other words, one chooses to engage in “bad”, risky behaviour and, therefore, is at fault when he or she becomes infected. Nurses’ beliefs and value systems are partly shaped by existing values and norms of society. Therefore, understanding the association between HIV infection and assumed immoral and improper behaviour is essential to addressing stigmatising attitudes towards individuals living with HIV (Nyblade *et al.*, 2009)

The association between specific sexual behaviour and what is considered socially unacceptable by many people contributes to the stigma associated with HIV infection (Campbell *et al.*, 2007) Parker & Aggleton, 2002; Cao *et al.*, 2007.) According to Campbell *et al.* (2007), even in instances when antiretroviral therapy (ART) is available and the outcome of HIV / AIDS is not always fatal, the link between HIV / AIDS and bad behaviour is still of concern to PLWHA due to shame and embarrassment.

### ***Attitudes of nurses***

The results of this study revealed that close to two-thirds of the respondents acknowledged a negative attitude towards people living with HIV / AIDS. Respondents reported that they were not willing to treat HIV-positive patients, since they felt it was a waste of time and hospital resources. Similarly, a study in the North West Province of South Africa has found that nurses' attitude is mostly negative towards HIV-positive patients due to a lack of knowledge and a lack of internalisation of knowledge, which lead to negative perceptions of the patients (Deetlefs *et al.*, 2003). De Villiers and Ndou,(2008) have found that nurses experience negative emotions while caring for HIV-positive patients and consequently engage in unethical behaviour, such as refusing to carry out certain invasive procedures that might expose them to risk. Their efforts to reduce the perceived risk, together with their negative emotional experiences, increase an impaired therapeutic relationship with their patients (De Villiers & Ndou, 2008).

However and in contrast, another study in South Africa has found that nursing students demonstrate positive attitudes towards patients who are infected with HIV and are willing to provide care to such patients (Sehume *et al.*, 2012). The difference between their findings and the present study could be due to the fact that this study was conducted in an area of high HIV prevalence compared to the Mpumalanga Province with the second highest HIV prevalence in South Africa. Most respondents from this high HIV prevalent area could have experienced caring for family members and ill relatives. A study in Botswana shows that more tolerant attitudes prevail when one has previously cared for a family member who is HIV-positive (Letamo, 2003).

## **5.2 Conclusion**

The findings of this study show that stigma exists to some extent among nurses at the Polokwane Hospital Campus. The drivers of stigma are found to be the fear of infection and a lack of knowledge. This fear, in turn, is exacerbated by the perceived lack of supportive protective structures. This lack results in differential treatment practices that contribute to the stigmatisation of PLWHA. Negative attitudes and moralising beliefs and assumptions about how a person is infected often lead to a judgemental attitude and stigmatisation of people living with HIV and AIDS.

Therefore, institutional support is vitally important to the process of dealing with the stigmatisation and creating a conducive working environment for nurses who care for HIV infected patients. Hospital management has a responsibility to ensure that nurses and patients are protected against infection by providing the necessary support structure and materials to prevent infection.

## **5.3 RECOMMENDATIONS**

The results of this study reveal a number of factors that contribute to HIV-related stigma. There is a great need for the creation of awareness amongst nurses about the dynamics of stigma and what devastating effects it has on people living with HIV and AIDS, as well as on the community in general. Medical education in general and education about HIV and AIDS in particular will not necessarily reduce stigma and discrimination unless it reduces specific fears of infection in the workplace. This has to be coupled with access to the necessary equipment and procedures to ensure that health professionals can manage the risk of workplace infection appropriately (Deacon & Boule, 2007). This is of concern, particularly to patients who are recently diagnosed with HIV, since this instance may be their first encounter with stigma. While blatant stigma towards PLWHA has declined in recent years, some health care professionals are still reported as engaging in stigmatising and discriminatory behaviour (Kalichman & Simbayi, 2004).

Programmes to combat stigma in health care settings should be strengthened by addressing stigma at three levels; namely the individual, environmental, and policy levels (Nyblade *et al.*, 2009).

### **5.3.1 Individual level**

- Awareness about stigma should be increased among health workers with regard to the dynamics of stigma, the negative consequences of stigma, and the benefits of reducing it. This may lead to a better understanding of stigma that may assist with improving patient-provider interaction.
- All nurses and other categories of health workers at hospitals should be allowed to attend workshops that use participatory methods, such as group discussions and role-play scenarios that allow participants to explore personal values and behaviour while improving their knowledge and awareness.

### **5.3.2 Environmental level**

- In the physical environment, programmes need to ensure that health care workers have the information, supplies, and equipment that are necessary to practise universal precautions and prevent occupational transmission of HIV.
- Posting of relevant policies, e.g. hand washing procedures that are necessary to enable health workers to maintain better quality patient care.

### **5.3.3 Policy level**

- Policies and clear guidance related to the care of patients with HIV to protect the safety of patients.
- Guidelines for the prevention of general infection should be clearly posted and be visible to all staff members.
- Routine monitoring of policies after implementation (Nyblade *et al.*, 2009).

## **5.4 LIMITATIONS**

- The present study relied mainly on the self-report method of data collection. Recall may be inaccurate and may also be prone to intentional distortion (social bias).

- The findings of this research study may not be generalised to public hospitals in the Limpopo Province or South Africa, since the study was confined to the Polokwane-Mankweng Hospital Complex.
- Selection bias may be a problem as not all nurses had a chance of being selected.
- Future researchers should take the limitations of this study into consideration.
- Measuring stigma and discriminatory behaviour can be somewhat challenging, since nurses are not likely to admit that they stigmatise due to social bias. In this study, respondents were asked to report on the observed discriminatory or stigmatising behaviour or practices of their colleagues towards HIV-positive patients.

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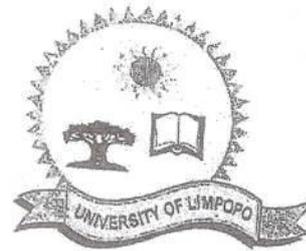
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**APPENDIX A PERMISSION AND ETHICAL CLEARANCE FROM THE  
UNIVERSITY OF LIMPOPO ETHICS COMMITTEE**



**LIMPOPO**  
PROVINCIAL GOVERNMENT  
REPUBLIC OF SOUTH AFRICA  
DEPARTMENT OF HEALTH AND SOCIAL DEVELOPMENT

ETHICS COMMITTEE  
CLEARANCE CERTIFICATE  
UNIVERSITY OF LIMPOPO  
Polokwane/Mankweng Hospital Complex



PROJECT NUMBER: 100/2009

TITLE: Factors contributing to HIV and Aids stigma among registered nurses in health care facilities at Polokwane/Mankweng Hospital Complex of Limpopo Province, South Africa

RESEARCHER: C.K. Kgosimore

ALL PARTICIPANTS:

Department:

Supervisor: Dr M.B.L. Mpolokeng  
Co-Supervisor: Prof N. Nyazema

Date Considered: 03/07/2009  
Decision of Committee: Recommended for Approval

Date: 06/07/2009

  
Prof A.J. Mbokazi

Chairman of Pietersburg Mankweng  
Hospital Complex Ethics Committee

*Note: The budget for research has to be considered separately. Ethics Committee is not providing any funds for projects.*

**APPENDIX B            PERMISSION FROM THE LIMPOPO PROVINCIAL  
DEPARTMENT OF HEALTH AND SOCIAL DEVELOPMENT  
AND FROM THE HOSPITAL MANAGEMENT**



**LIMPOPO**  
PROVINCIAL GOVERNMENT  
REPUBLIC OF SOUTH AFRICA

---

**DEPARTMENT OF HEALTH AND SOCIAL DEVELOPMENT**

Enquiries: Ramalivhana NJ

Ref: 4/2/2

28 June, 2010  
CK Kgosimore  
University of Limpopo  
Facility of Health Sciences  
School of Health Sciences  
South Africa

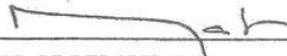
Dear CK Kgosimore

**"Factors contributing to HIV/AIDS stigma among registered nurses in health care facilities at Polokwane/Mankweng Hospital Complex of Limpopo Province, South Africa"**

Permission is hereby granted to CK Kgosimore to conduct a study as mentioned above

The Department of Health and Social Development will expect a copy of the completed research for its own resource centre after completion of the study.

- The researcher is expected to avoid disrupting services in the course of his study
- The Researcher/s should be prepared to assist in interpretation and implementation of the recommendations where possible
- The Institution management where the study is being conducted should be made aware of this,
- A copy of the permission letter can be forwarded to Management of the Institutions concerned

  
\_\_\_\_\_  
/s/ HEAD OF DEPARTMENT  
HEALTH AND SOCIAL DEVELOPMENT  
LIMPOPO PROVINCE

## **APPENDIX C: CONSENT FORM**

To: The participant

### **Re: Invitation to participate**

I, Cynthia Kgosimore, a student in the School of Public Health, University of Limpopo, Turfloop Campus, am involved in a study to determine which factors contribute to HIV and AIDS stigma at the hospital.

The procedure of this study is based on your responses to the items in a questionnaire. The questionnaire will take approximately 20 minutes to complete. Once completed, the investigator will return to collect the questionnaires.

I hereby invite you to participate in this research study. The information that you provide will be held in strict confidence. Do not write your full name on the consent form if it makes you uncomfortable.

Participation is voluntary and you are free to withdraw from the study at any time. If you have any questions or queries about the research, or would like to obtain more information about this study, please feel free to contact me and I will gladly answer your questions.

Please find attached a questionnaire to be filled in.

Yours sincerely

C. K. Kgosimore (Mrs)

Cell: 082 200 5209

Office Tel: 015 268 4608 / 3502

School of Public Health

Private Bag X1106

SOVENGA

0727

## Consent Form

Statement by participant

I fully understand the aim and procedures to be followed in this study. By signing this consent form, I agree to this investigation and understand that I am free to refuse or withdraw this consent with regard to my participation at any time.

Signature .....

Date .....

## APPENDIX D QUESTIONNAIRE

### 1. ADULT RESPONDENT'S BIOGRAPHICAL DATA

1.1. How old were you at your last birthday? (Age of the respondent)

--	--

1.2. Sex of the respondent

Male	Female
1	2

1.3. Race / population group

African	White	Coloured	Indian	Other
1	2	3	4	5

1.4. What is your home language? (Language spoken most often at home)

Afrikaans	01	Setswana	07
English	02	Tshivenda	08
IsiNdebele	03	Xitsonga	09
IsiXhosa	04	Indian language	10
IsiZulu	05	Northern Sotho	11
Sesotho sa borwa	06	Other	12

1.5. What is your highest educational qualification?

a. Std 8 / Gr 10 / N1	01
b. Std 9 / Gr 11 / N2	02
c. Std 10 / Matric / N3	03

d. Diploma(s) / Occupational certificate(s)	04
e. First degree(s) / Higher diploma(s)	05
f. Honours / Master's degree(s)	06
g. Doctorate(s)	07

**1.6. Are you a member of any faith or religious grouping?**

	Yes	No
	1	2
a. Christianity		1
b. Islam		1
c. African traditional		1
d. Buddhism		1
e. Other specify _____		1

**1.7. How important is religion to you?**

a. Not important at all	1
b. Slightly important	2
c. Somewhat important	3
d. Important	4
e. Very important	5
f. Not applicable (e.g. atheist)	6

**2. HEALTH CARE WORKERS' EXPERIENCES OF WORKING WITH PLWHA**

**2.1. What type of ward do you work in?**

1. Surgical ward	01
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2. Medical ward	02
3. Gynaecological ward	03
4. Obstetric ward	04
5. Other, please specify: _____	05

## 2.2. As a health care provider

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Don't know
1. I am afraid of being infected by my patients.	1	2	3	4	5	6
2. I feel uncomfortable taking care of PLWHA.	1	2	3	4	5	6
3. I need more training to be more sensitive to the needs of PLWHA.	1	2	3	4	5	6
4. I believe our hospital / clinic has all the protection needed to protect us from infection.	1	2	3	4	5	6
5. I do not think I have enough training in caring for HIV and AIDS patients.	1	2	3	4	5	6
6. I should be given a choice not to treat patients with AIDS.	1	2	3	4	5	6
7. I believe we waste too much time treating AIDS patients.	1	2	3	4	5	6
8. I do not believe that AIDS patients deserve special treatment.	1	2	3	4	5	6

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Don't know
9. I believe that AIDS patients are rude.	1	2	3	4	5	6
10. AIDS patients are a waste of medical resources.	1	2	3	4	5	6
11. As health care providers, we need to eliminate shame.	1	2	3	4	5	6

### 2.3. I have observed my fellow health care providers

Statement	Always	Sometimes	Never
1. Being rude to patients they suspect may be HIV positive.	1	2	3
2. Become rude toward a patient as soon as they realise he or she is HIV-positive.	1	2	3
3. Openly discuss the status of PLWHA in front of other patients.	1	2	3

### 2.4. HIV mode of transmission

What is your opinion on the following statements?

Read each statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. A person who contracts HIV should be ashamed.	1	2	3	4	5
2. A person who contracts HIV should be rejected.	1	2	3	4	5
3. It is more shameful to get HIV from consensual sex than to get it from rape.	1	2	3	4	5

Read each statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
4. It is more shameful to get HIV from a spouse during marital sex than from a non-marital sexual partner.	1	2	3	4	5
5. A person who contracts HIV through sex is to be shamed.	1	2	3	4	5
6. A person who contracts HIV through intravenous drug use should be ashamed.	1	2	3	4	5
7. I believe that the shame associated with HIV is associated with sex.	1	2	3	4	5
8. I believe that the rejection associated with HIV is because it is associated with sex.	1	2	3	4	5
9. Men are to be blamed for the spread of HIV	1	2	3	4	5

**3. Among the following, where should we place the emphasis for eliminating shame and rejection associated with HIV / AIDS?**

Please rank your top 3 in order of importance, **1 being most important, 2 next most important, 3 least important?**

A. Family	
B. Community members	
C. Hospital / clinic_____	
D. Provincial Government _____	
E. National Government	
F. Among PLWHA	

G. Other (specify): _____	
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**4. End**

Thank you for participating in this project. Should you have any additional comments, please feel free to share them below:

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APPENDIX E EDITING CONFIRMATION



\* The stars that tell the spade when to dig and the seeds when to grow \*

\* Isilimela – iinkwenkwezi ezixelela umhlakulo ukuba mawembe nembewu ukuba mayikhule\*

P O Box 65251  
Erasmusrand  
0165

21 July 2015

Dear Ms C Kgosimore

**CONFIRMATION OF EDITING THE MINI-DISSERTATION WITH THE TITLE  
FACTORS THAT CONTRIBUTE TO HIV AND AIDS STIGMA AMONG  
NURSES AT THE POLOKWANE-MANKWENG HOSPITAL COMPLEX IN  
THE LIMPOPO PROVINCE, SOUTH AFRICA**

I hereby confirm that I have edited the abovementioned document as requested.

Please pay particular attention to the editing notes **AH01 to AH91** for your revision. Most of these notes deal with referencing issues.

The tracks copy of the document contains all the changes I have effected while the edited copy is a clean copy with the changes removed. Kindly make any further changes to the edited copy since I have effected minor editing changes after removing the changes from the tracks copy. The tracks copy should only be used for reference purposes.

Please note that it remains your responsibility to supply references according to the convention that is used at your institution of learning.

You are more than welcome to send me the document again to perform final editing should it be necessary.

Kind regards

A handwritten signature in black ink, appearing to read 'André Hills', is written over a rectangular box.

André Hills  
083 501 4124