

THE KNOWLEDGE AND ATTITUDES OF PHYSIOTHERAPISTS TOWARDS  
PATIENTS WITH HIV/AIDS IN THE LUSAKA PROVINCE, ZAMBIA.

by

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## KEYWORDS

- Physiotherapy
- Attitudes
- Knowledge
- Human Immuno Virus
- Acquired Immuno-deficiency Syndrome
- Neurologic
- Neurological manifestations
- Rehabilitation
- Transmission
- Zambia



## ABSTRACT

With the increase in the number of persons suffering from HIV/AIDS, physiotherapists are often required to treat these patients who present with respiratory and neurological complications. Although physiotherapists are at a lower risk of HIV infection in the workplace than nurses and doctors, it is necessary to determine their knowledge and perceptions of the risks, fears of HIV transmission and their attitudes towards patients with the disease. **The aim** of the study was to determine the physiotherapists' knowledge of, and their attitudes towards patients with HIV/AIDS. It also explored whether the physiotherapists' knowledge influences attitudes towards HIV/AIDS patients in Lusaka, Zambia. According to literature a sound knowledge base is essential for effective management of HIV/AIDS patients, and education is the cornerstone of a programme to ensure effective rehabilitation for HIV/AIDS-related disabilities. **Method:** An exploratory study utilizing a qualitative research method was employed. Qualitative data was collected from a purposive sample of twelve physiotherapists practising in the Lusaka Province. An interview guide with questions on the physiotherapists' knowledge of HIV/AIDS, management, transmission and prevention was used. Questions about physiotherapists' attitudes towards HIV/AIDS patients, their perceived risks and fear of infection in the workplace were included. The interviews were tape-recorded and the responses obtained were transcribed verbatim and verified with the participants. The transcripts were read thoroughly,

categorized and grouped into the pre-determined themes. The results were presented using exemplars; these are quotes from the interviews. The **results** demonstrated that physiotherapists in Lusaka, Zambia have a positive attitude towards patients with HIV/AIDS, but have insufficient knowledge of some medical aspects of HIV/AIDS. Physiotherapists also have a fear of contracting HIV/AIDS in the work place. **Recommendations:** There is a need for the inclusion of HIV/AIDS and counseling skills in the undergraduate physiotherapy training curriculum. Hospitals and departments could assist in improving the knowledge of health professionals on HIV/AIDS and related matters through the implementation of continuous professional development courses.



## ABBREVIATIONS

**ARV** Anti retroviral

**CP** Cerebral Palsy

**CPD** Continuous Professional Development

**GBS** Guillain Barre Syndrome

**HCW** Health Care Worker



**HIV-GBS** HIV related Guillane Barre Syndrome

**LAV** Lymphadenopathy-Associated Virus

**MTC** Mother-To-Child Transmission.

**PTB** Pulmonary Tuberculosis

**UPs** Universal Precautions

**UTH** University Teaching Hospital

## **DECLARATION**

I declare that this mini-thesis is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted before for any other degree at any other university.



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FLORENCE CHIWALA SALATI

DATE

## **DEDICATION**

This mini-thesis is dedicated to my wonderful husband Goldwyn and our children  
Chipili, Chibwe and Chiti for your support and love.



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I would like to give glory and honor to the Almighty God for being with me, granting me grace, strength, favor and guidance in my studies. Knowing that He will never leave me nor forsake me kept me inspired daily.

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## **CHAPTER 1**

### **ORIENTATION OF THE STUDY**

#### **1.1. INTRODUCTION**

In this chapter the background of the study, statement of the problem, the research questions, the purpose of the study and the objectives are discussed. Terms used in the study are defined and the chapter ends with an overview of the remaining chapters of the study.

Physiotherapists usually work in close physical contact with patients when treating them for HIV/AIDS related chest complications like pneumonia, and neurological complications. The latter could be neuropathies and muscle weakness, which affect the patients' mobility and independence.



According to Dike (1993) physiotherapy was viewed as a comparatively low risk medical profession but respiratory care presents as the most perceived risk in the work place. Okoli and King (1993) agreed and found that the risk of infections involved in treating HIV/AIDS patients was minimal for physiotherapists if they adhered to the universal precautions. Despite the fact that physiotherapy is a profession with a low risk of HIV transmission in the workplace, this study will try to determine their knowledge about HIV transmission in the workplace, their attitudes towards patients requiring physiotherapy and their fears of contracting HIV infections in their handling of HIV/AIDS sufferers.

## 1.2. BACKGROUND TO THE STUDY

Infection with the Human Immuno-deficiency Virus (HIV) and the subsequent progression to Acquired Immune Deficiency Syndrome (AIDS) is a global pandemic that has reached every corner of the world (Jackson, 2002). Physiotherapists are also seeing an increasing number of HIV/AIDS related conditions in their practice and they play a significant role in the management of people living with AIDS (PLWA). They are part of the interdisciplinary team whose responsibilities include treatment planning and implementation and health promotion. The latter is a strategy and an approach whereby information and education are disseminated to individuals and communities on disease and injury prevention (Caldron, 1997). This can only be done if the health professionals are well informed of the conditions they are treating.



As a result of the possible stigma attached to the disease and the possible exaggerated fear of HIV's transmissibility, and their own risk of contracting HIV/AIDS in the work place, there could be a tendency among physiotherapists, like other health workers, to be afraid of the infectious diseases associated with HIV/AIDS e.g. tuberculosis. This could lead to reluctance by physiotherapists to treat HIV/AIDS patients.

There were forty million people living with HIV/AIDS in the world by the end of 2001, and of these twenty five million are in Sub-Saharan Africa. Slightly more than six million are in South East Asia, East Asia and the Pacific (UNAIDS, 2003a). Of the twenty five million people in Africa who are HIV positive, the adult population

infected is aged between fifteen and forty nine years old (Barnett & Whiteside, 2002; UNAIDS, 2000).

Zambia is one of the nine countries with the highest HIV/AIDS prevalence in Africa. Out of the population of approximately (10) ten million, two million people are HIV positive (UNAIDS, 2002). With the increase in the number of HIV cases in Zambia, physiotherapists should have sufficient knowledge about HIV/AIDS and understand the medical and neurological sequelae in order to plan effective interventions for their patients. Although physiotherapists are a part of the health care profession, it should not be taken for granted that they are sufficiently knowledgeable about HIV/AIDS.

Zambia has one hundred and forty one (141) physiotherapists registered with the Medical Council of Zambia. Of the total, forty-five (45) are based in the Lusaka Province (Medical Council of Zambia, 2002).

### **1.2.1 Established risk contact with HIV/AIDS patients**

In the medical profession physiotherapists have been viewed as a low risk profession compared to the nurses and doctors. This could be because physiotherapists do not often come into direct contact with blood and body fluids. However, in respiratory care there seems to be a greater perceived risk of contracting HIV in the work place Dike (1993).

### **1.2.2. Knowledge and Attitudes of Health Care Workers**

A number of studies on health workers' knowledge of and attitudes towards HIV/AIDS revealed relatively similar results. Herera (1992) found that many health care professionals have inadequate knowledge of HIV/AIDS. Similar findings on health care workers in China and Madagascar were reported by Buskin, Lin, Houyuan, Tianj and McGough, (2002) & Hentgen (2002) respectively. Lau, Cheung and Lee (2000) found that health care workers in Hong Kong expressed avoidance attitudes towards caring for HIV/AIDS patients. Their avoidance appeared to correlate with insufficient knowledge of HIV/AIDS.

Due to the complexity of HIV/AIDS complications, interventions call for teamwork among health care workers. Physiotherapists would primarily be involved in the care of HIV/AIDS patients who have opportunistic infections and other complications resulting in disabilities. Therapeutic exercises have proven to temporarily regain the patient's functional status and this in turn improves the HIV/AIDS patient's quality of life. Such improvement reduces the burden on the caregivers of AIDS sufferers (O'Dell & Sasson, 1992).

### **1.3. SIGNIFICANCE OF THE STUDY**

With the increase in HIV/AIDS infections in Zambia and the medical sequelae associated with HIV/AIDS, there has been an increase in the number of patients requiring physiotherapy treatment. Patients with neurological complications are seen in almost all the physiotherapy departments in the province. Therefore it is

hypothesized that physiotherapists who are knowledgeable about all aspects of the disease will be expected to be positive and confident in treating and handling patients with HIV/AIDS complications. My motivation for doing the study is due to the fact that there is minimal information on the knowledge of physiotherapists on HIV/AIDS and their attitudes towards PLWA. This study also explored whether knowledge on HIV/AIDS influences physiotherapists' attitudes towards HIV/AIDS patients in the Lusaka Province in Zambia.

Information gained in this study could assist in the improvement of training programmes in HIV/AIDS for the physiotherapy staff at the institutions involved in the study. Recommendations could also be made that the physiotherapy training school addresses HIV/AIDS in their physiotherapy curriculum, with specific emphasis on physiotherapy in HIV/AIDS and the prevention of HIV transmission in the workplace.

#### **1.4. STATEMENT OF PROBLEM**

In the researcher's work experience, it was observed that there existed a sense of apprehension amongst physiotherapy clinicians in caring for clients with HIV/AIDS. This was possibly due to their fear of contracting the disease. Lack of knowledge about HIV/AIDS may impact on the attitudes and beliefs and instill an exaggerated fear of transmission in physiotherapists. This may affect the quality of care patients receive from them. In order to ensure effective health care for this population, it is therefore essential to determine the knowledge and attitudes of physiotherapists in the spate of HIV/AIDS cases in Zambia.

According to Dike (1993), only a few studies have been done in developed countries, and to a lesser extent in developing countries, on rehabilitation workers' knowledge, attitudes and practice towards patients with HIV/AIDS. All and Fried (1996) for instance, reveal that although some studies have been done on rehabilitation workers, only a few have actually been published on their reactions to HIV/AIDS. No studies were found on knowledge and attitudes of physiotherapists in Zambia from the literature reviewed.

### **1.5. RESEARCH QUESTIONS**

The study sought to explore the following research questions, namely:

1. What are the physiotherapists' knowledge of HIV/AIDS and their attitudes towards HIV/AIDS patients in Zambia?
2. Does knowledge of HIV/AIDS and its transmission have an influence on the attitudes of physiotherapists towards these patients?



### **1.6. OBJECTIVES**

The following objectives were identified, namely:

1. To determine the knowledge of physiotherapists working in Lusaka Province regarding HIV/AIDS and its transmission in the workplace.
2. To determine the physiotherapists' attitude towards HIV/AIDS patients requiring physiotherapy intervention.
3. To determine whether the physiotherapist's knowledge on HIV/ AIDS influences their attitudes towards HIV/AIDS patients in the Lusaka Province.

## 1.7. DEFINITION OF TERMS

Clarification of the context within which the terms were used is explained and at the onset removes all possibility of misinterpretation.

**Physiotherapy** is a “health care profession concerned with human function and movement and maximizing potential. It uses physical approaches to promote, maintain and restore physical, psychological and social well being, taking account of variations in health status. It is science-based, committed to extending, applying, evaluating and reviewing the evidence that underpins and informs its practice and delivery. The exercise of clinical judgement and informed interpretation is at its core”

CSP Curriculum Framework (2002).



**HIV** (Human Immuno-deficiency Virus) is the virus that destroys the immune system and renders the person susceptible to infections (Whiteside & Sunter, 2000).

**AIDS** (Acquired Immunodeficiency Syndrome) is “the presence of a reliably diagnosed “opportunistic” disease and of an underlying defect in cell mediated immunity in the absence of known causes of immune defects such as immunosuppressive therapy or malignancies” (Onin, 2002).

**Knowledge** “is the capacity to acquire, retain and use information; a mixture of comprehension, experience, discernment and skill” (Badran, 1995).

**Attitude** refers to inclinations to react in a certain way to certain situations, to see and interpret events according to certain predispositions or to organize opinions into coherent and interrelated structures (Badran, 1995).

**Rehabilitation** is an active process by which those disabled by injury or disease achieve a full recovery or, if full recovery is not possible, realize their optimal physical, mental and social potential and are integrated into their appropriate environment. (WHO, 2004).

**A risk factor** is harm that is caused by some specific danger or threat. These factors exist before a problem arises or continue over time. A community or the general environment can contribute towards the problem (Skolbekken ,1995).



## **1.8. SUMMARY**

This chapter presented the background of the study, formulation of the problem and the objectives. Terms used in the study were defined. The role of the physiotherapist in the comprehensive management of HIV/AIDS patients was highlighted. The relevance of the study to physiotherapy was explained.

## **1.9. OUTLINE OF THE STUDY**

CHAPTER 1: Orientation of the study, statement of problem, research question and objectives of the study, significance of the study, research methodology, ethical considerations, limitations of the study and definition of terms are described.



CHAPTER 2: A review of the relevant literature is presented.

CHAPTER 3: The research methodology of the study is described. The rationale for the research method and study design used is explained. The qualitative method chosen enables the researcher to obtain rich, in-depth responses that cannot be obtained in a quantitative research method (Balnaves & Caputi, 2001). The study population, sampling, the methods for data collection and the analysis are described.

CHAPTER 4: The results and the interpretation of results are presented. The responses obtained were an indication of the physiotherapists' knowledge about HIV/AIDS and their risks of infection in the workplace, as well as their attitudes towards HIV/AIDS patients in Zambia.



CHAPTER 5: The results are discussed in relation to the purpose and objectives of the study and relevant literature.

CHAPTER 6: The summary of the thesis, limitations of the study and the recommendations based on the results are presented.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1. INTRODUCTION**

The literature review primarily explored concepts relating to health workers' knowledge of HIV/AIDS, their attitudes towards it and their fears and risk of HIV/AIDS transmission in the workplace. It also examines the role of physiotherapists in the treatment and management of persons with HIV/AIDS. The medical aspects and the socio-economic impact of the disease are discussed. Previous studies on knowledge and attitudes of HCWs according to methodologies used and outcomes, will be discussed briefly.



#### **2.2. CONCEPTUAL FRAMEWORK**

The conceptual framework of vulnerability and risk, according to Mann and Tarantola (1996), and fear according to Hodgson (1997), formed the basis of the study on knowledge and attitudes. The framework also included concepts of knowledge and attitudes. The concept of individual and collective vulnerability has come up as one of the theoretical perspectives used to explain the incidence of HIV/AIDS among individuals and groups. Mann and Tarantola (1996) & Koning and Kemp (1998) defined vulnerability to HIV infection as a range of circumstances, which renders an individual or community susceptible to HIV infection, inadequate care and societal support. This concept of vulnerability provides a broad design for examining risk-taking behaviors, recognizing risk-taking behaviors and understanding them.

There are a number of complex factors at work in the formation and manifestation of attitudes towards people with HIV/AIDS. According to Hodgson (1997), one of the factors is an anthropological interpretation, which is the exaggerated fear of contagion. The other is the social interpretation, which is the fear of the unseen enemy. An example of these is the fear by health workers of wanting to know who has the virus. There is thus over-cautiousness due to the belief that they may be infected through contact with the HIV-infected patient. The concepts of vulnerability and fear of contagion were therefore applied in this study.

Physiotherapists may perceive themselves likely to be at risk of HIV infection in the workplace due to the nature of their occupation, either through an accident, negligence, inadequate protection or other unforeseen circumstances. Sunkutu (2002), in his study found that health professionals e.g. doctors and nurses had a high morbidity and mortality due to HIV/AIDS. This could be attributed to their being in the high risk group exposed to contracting in the workplace. However, the probability of acquiring infection in the workplace is likely only if universal precautions (UP) are ignored. Ignoring the adherence to UPs are called risk behaviors, and risk factors are variables or characteristics associated with a person. These are conditions that affect an individual or their environment. Risk factors can range from minimally harmful situations to life threatening situations (Skolbekken, 1995).

The conceptual framework of vulnerability, risk and fear formed the basis of the study on knowledge and attitudes while individual and collective vulnerability provided theoretical perspectives used to explain the incidence of HIV/AIDS among

individuals and groups. This concept of vulnerability provides a broad design for examining risk taking behaviours, recognizing risk taking behaviours and understanding them.

### **2.3. HISTORICAL OVERVIEW**

The first discovery of the HIV was in 1983 by Madame Françoise Barre-Sinoussi at the Pasteur Institute in Paris (Monekosso, 1994) The infection was first associated with homosexual people but is now associated with heterosexuals too. AIDS is the result of an infection with the human immune deficiency virus (HIV) although this statement is debated by some politicians. It was first described as a retrovirus and named the lymphadenopathy-associated virus (LAV) (Coates, 1990). This virus attacks selected cells of the immune system, nervous and other systems, impairing their proper function (Shi, De Giralami, He, Wang, Lorenzo, Buscaglio & Gabuzda, 1996; Marcandes, Burudi, Resendiz, Alavez, Watry, Zandonatti, Henriksen & Fox, 2001).

### **2.4. CONSEQUENCES OF HIV**

When a person becomes infected with HIV, the client will present with some associated medical and/ or emotional conditions. As a result of the HIV infected person's failing immunity a number of opportunistic diseases may appear in the early or advanced stage of the infection. These could be respiratory, e.g. pneumonia, oral and vaginal thrush and persistent diarrhoea. HIV/AIDS sufferers could also present with dermatological conditions, which can be localized or generalized. Lymphadenopathy is also common, loss of body weight of about 10%, pyrexia and

other sexually transmitted diseases, e.g. gonorrhoea (Evian, 2000). However, the psychological and socio-economic impact of the disease is a cause for great concern for governments (Sunkutu, 2002).

#### **2.4.1. SOCIO-ECONOMIC IMPACT**

The impact of the HIV/AIDS epidemic can have devastating effects on households, communities and countries (Ainsworth & Over, 1994). There is disablement of people with AIDS who ultimately become dependent on others for their personal care, and ultimately death. For the caregivers, there is a complete lifestyle change (Ankrah, Mhloyi, Manguyu & Nduati, 1994). They are often left with no choice but to care for the AIDS sufferer (Booyesen, Van Rensburg, Bachmann, Engelbrecht & Steyn, 2002). The caregiver may be a spouse who will be forced to stop working or a young daughter who has to leave school (Katongo, 2002). This usually affects the household badly, resulting in an increase in the number of people living in the house as households open their doors to extended families (Booyesen et al, 2002). There is an increase in the number of orphans left in poverty with nothing, or limited disposable incomes (Ankrah et al, 1994).

Grandparents are often left to bear the responsibility of taking care of these children (Joslin & Harrison, 2002). As a result of the increase in the number of children who are living with HIV, there is a drop in the school enrollment due to the devastating complications and death (Lucas, Peacock, Hounou, Brattegard, Honde & Andoh, 1996). The educational systems are also affected by the HIV/AIDS epidemic, which shows no signs of declining. Schools have been affected due to absenteeism and

death of teachers. It has been documented that the teachers' death rate due to HIV/AIDS has been on the increase (ZNUT, 2000; Katongo, 2002).

According to Broomberg, Malcolm, Patric & Groemme (1991) there is a correlation between a country's expenditure on AIDS and a country's gross national production. This simply means that the richer countries may be more able to spend more money on each patient with HIV/AIDS. This implies that the less spent on a patient the higher the death rate as seen in the third world countries where the pandemic is out of control. In most of these countries the cost is usually borne by either the medical insurance, if it is available, or by the family when there is no medical insurance (Broomberg et al, 1991). The economy of the country is often affected as the AIDS-related deaths usually occur at the peak of the population's productive years (ibid).



## **2.5 MEDICAL ASPECTS OF HIV/AIDS**

A number of conditions that existed before the discovery of HIV are now associated with HIV/AIDS. These will be briefly discussed under neurological and non-neurological manifestations of the disease.

### **2.5.1. Neurological Complications**

Peripheral neuropathies becoming more evident in the early stages of the infections and are caused by the damage to the cells surrounding the nerves, destroying neural insulation. This may manifest as HIV-related Guillane Barre Syndrome (HIV-GBS) or chronic inflammatory demyelinating polyneuropathy (CIDP) (Brannigan & Zhou, 2003).

The use of antiretroviral drugs may cause distal neuropathies, known as toxic neuropathy (Williams, Garaci & Simpson, 2002). This type of neuropathy can be said to be at the rate of 6%-8% during the acute retroviral syndrome in healthy looking persons shortly after infection (Bowers, 1997). It is due to the diminishing of impulses to and from the brain. Symptoms of this condition may arise at any stage of the infection;

It has been documented that 50% of all HIV patients end up with neurological complications (Simpson & Tanglia, 1995). Peripheral neuropathy comprises 5% to 20% of the total neurological conditions (Sasaki, Leite & De Almeida, 2002). In the central nervous system one of the common features of AIDS is dementia, also called HIV encephalopathy. About 65% of HIV patients in the late stage develop cognitive deficits, and this is associated with depression, loss of memory and apathy (Levinson & O'Connell, 1991). Another central nervous impairment that can be seen in these patients is cerebral vascular disease. This can be the first manifestation of HIV infection and may be associated with a treatable etiology. This complication leads to hemiparesis, which usually sets in before or at 24 months after the AIDS defining illness (O'Dell & Sasson, 1992). This has been identified during autopsies, which revealed evidence of a clinically silent cerebrovascular disease in HIV/AIDS sufferers (Thomas, 2001). Facial palsy has also been found to be one of the many neurological complications in the early stage of HIV (Sasaki et al, 2002; James, 2000).

The Cytomegalovirus (CMV) has also been identified as being the cause of the painful sensory neuropathy. This infection is known to attack the nerve, which was

unknown in the pre-HIV era (Price & Perry, 1994). In the severely immune compromised individuals, a progressive polyradicular syndrome, which presents with abrupt pain in the back and lower extremities, is a common occurrence. It has been described in association with CMV infection (Feki, Belahsen, Ben, & Mhiri, 2003; Matsumoto, Nakagawa, Nakayama, Hashmoto, & Shindo, 1998; Price & Perry, 1994).

### **2.5.2. Non-Neurological Complications**

Multiform non-neurological complications accompany HIV/AIDS; some of these are cardiomyopathies, pulmonary complications, rheumatologic disease and cancers.

Cardiac disease has been estimated to be 50% prevalent in HIV patients and it is usually asymptomatic. The patient will usually complain of generalized fatigue and shortness of breath, which mimic heart failure (Mehta, Khan, Mehta, & Sepkowitz, 2000).

Pulmonary complications are among the common causes of serious illness and mortality in AIDS patients. Pneumocystis Carinii infects about 85% of all AIDS patients while tuberculosis and bacterial pneumonia account for most of the remaining 25% of AIDS related lung infections (Miller, 1987). At one time this complication was the number one killer of HIV/AIDS patients but is now almost totally treatable (Tasci, Ewing Burghard & Luderitz 2003). Patients initially present with breathlessness and a dry cough, which later becomes productive.

Rheumatologic manifestations often affect the lower limbs and the condition can be



chronic or transient. Other disorders associated with AIDS are Reiter's syndrome, reactive arthritis and psoriasis. In the early stage of the infection there is a manifestation of pyomyositis, which usually precedes immune deficiency. In the late stage of the disease, there is the appearance of myopathy. It is difficult to establish whether the myopathy is caused by the drug zidovudine (AZT), or the infection. (White, 2001; Yamagushi, Katoh & Kurata, 2002).

HIV/AIDS patients are usually emotionally affected and the mental state of the person may be negative because of the uncertainty of the disease progression, health status, future plans, family, work and relationships (McReynolds & Garske, 2001). Some of these patients who are in the HIV stage and do not know their status, usually request psychiatric care for medical conditions (Strax, 1994).



## 2.6 PHYSIOTHERAPY IN HIV/AIDS

According to Dworkin and Pincu (1993) it is predicted that every health worker will be in contact with individuals with HIV/AIDS in the future. There is still no cure for AIDS or an effective vaccine that has been approved. With the antiretroviral drugs available at present, patients are now living longer and this signifies a period of a new generation of chronic conditions that will definitely rely on health care professionals (Robbins, Cooper & Bender, 1992). Therefore the roles and responsibilities of physiotherapists in the rehabilitation of these patients cannot be over-emphasized in the care of HIV/AIDS patients. Physiotherapists will need to provide unique and unfamiliar services to this group of clients (All & Fried, 1996). These services will include, but are certainly not only limited to counseling (Souheaver, Benshoff, Wright & Riggat, 1996). As the virus spreads, this role is increased because of the

neurological and non-neurological complications associated with the infection (Dike, 1993; Sliwa & Smith, 1991). In some of these complications physiotherapy relieves the symptoms, improves the functional ability and the quality of life of these patients. The goals of rehabilitation are to help individuals with disabilities in adapting effectively to the changes associated with disabilities and to teach them ways of coping (Swanson, Cronin-Stubbs & Sheldon, 1989).

A physiotherapist has the clinical duty, like any health care worker, to treat HIV/AIDS patients despite their medical condition. This has been strongly put forward by the Chartered Society of Physiotherapists, which is a professional, educational, and trade union body for the United Kingdom in its Rules of Professional Conduct. It states that, “physiotherapists have no right to be selective about patients” (CSP, 1996). The World confederation of physiotherapists, which is a non-profit organization and represents physiotherapist’s world wide in its ethical principle 1, states “ all persons who seek the services of physical therapists have the right to service...” (WCPT, 1995). Therefore physiotherapists have a moral and ethical obligation to treat HIV/AIDS patients. However the reluctance of some physiotherapists to treat HIV patients could lie in the fear of contagion.

## **2.7. HEALTH WORKERS’ KNOWLEDGE**

“Knowledge is the capacity to acquire, retain and use information” (Badran, 1995). These are the facts, information, skills and understanding that have been gained especially through learning and experience. As the epidemic is now in the third decade since it was first identified, and is showing no signs of relenting (Mbanya,

Zebaze, Kengne, Minkoulou, Awah & Beure, 2001), it is important for the health care worker to be well equipped with current facts, information on treatment and knowledge of the resources available. The knowledge and use of universal precautions (UPs) by these HCWs when caring for all clients is imperative in the prevention of the spread of HIV/AIDS (Shearer & Davidhizar, 1999).

The UPs are guidelines for universal blood and body fluid precautions (UBBFP) which were developed by the United States Center for Disease Control (CDC) in 1988. They were designed to protect health care workers from occupational exposure to blood borne pathogens such as HIV and hepatitis B. These precautions should be applied not only when treating a patient, who is positive, but also for those who have been exposed and are carriers who do not show any symptoms (Daniel, Silberman, Bryant & Meydrech, 1996). These include the use of personal protective equipment i.e. gloves, masks and protective clothing which provide a barrier between the worker and the exposure source (CDC, 1989). Therefore it is required that all body fluids be treated as infectious regardless of the source person and the diagnosis (Knight & Bodsworth 1998).

All health workers are deemed to encounter PLWA (UNAIDS 2003b) and therefore face the occupational risk of HIV transmission in the workplace. Physiotherapists are part of the interdisciplinary team that will care for the patient with multiple problems, especially in trying to maintain maximum quality of life, using exercises (Shearer & Davidhizar, 1999; Levinson & O'Connell, 1991). Therefore rehabilitation professionals need to be well informed and knowledgeable about HIV and its transmission and prevention, as they are an important source of information for their

patients. The knowledge level held by rehabilitation workers can affect their service delivery and it is necessary so that the rehabilitation worker can provide adequate treatment (Buskin et al, 2002; Souheaver, et al, 1996). It is believed that the only way now to reverse the epidemic, without a vaccine in place, is through public education on the prevention of HIV/AIDS infections. The health profession bears much of this responsibility (Mungherera, Van der Straten, Hall, Faigeles, Fowler & Mandel, 1997). Information on HIV/AIDS demographic and epidemiological patterns serves as the foundation for the primary interventions utilized in public health, namely prevention (Caldron, 2001).

Unfortunately it has been found that health care professionals have less than accurate knowledge of the modes of transmission, their own risk of contracting the infection and on AIDS symptoms (Gatsi, Amosun & Mhlanga, 1994). Since HIV/AIDS is now a chronic disease, these patients may still have many months or years of productive life. These patients will spend some quality time with the therapist during treatment, which in turn gives the therapist ample time to discuss the HIV/AIDS disease with them. This puts the therapist in the role of a counselor, imparting knowledge and reassuring the client. This relationship is important in establishing an open, trusting and collaborative relationship. It also offers reassurance and comfort to the patient and opens ways of obtaining information from the patient (Soon, 2002). It has been observed that failure to establish this relationship is associated with poor treatment outcomes (Lambert, 1989).

Ingenito, Gershkoff, Staas & Coyne, (1990) found that when the physiotherapist is knowledgeable about HIV/AIDS the anxiety they experience when treating the

HIV/AIDS patients is reduced. Levinson et al, (1991) agreed that a lack of appropriate knowledge of transmission of the disease, may affect the quality of care the HIV positive patient may receive. This seems to imply that the more knowledgeable HCWs are the more positive their attitude would be in the treatment of HIV/AIDS patients.

A survey was conducted by Mungherera et al, (1997) on a consecutive sample of 90 doctors and 78 nurses in Uganda, to determine HIV/AIDS related attitudes and practices. This study concluded that there was a need for intervention to address the gaps in knowledge. The study revealed that patients did not benefit from educational talks by nurses because of the latter's lack of knowledge.



The knowledge of HIV/AIDS was also researched in China by Wu, Qi, Zeng & Detels (1999). The effect of HIV/AIDS education was also studied by (All, Fried, Roberto & Shaw (1997) in United States of America. They evaluated the anxiety of health care rehabilitation workers, using a sample of 81 persons. Participants were given the State Trait Anxiety Inventory before the educational intervention and immediately following the presentation. The program consisted of two hour of HIV/AIDS information focusing on HIV/AIDS in the workplace and the other hour on listening to people living with HIV/AIDS. The results of the study did not support the hypotheses that the state of anxiety would be reduced immediately following the educational presentation.

Other Studies that were done to assess HIV knowledge of HCWs have found the following. Pilyugina Katzenstein, Bergen, Usichenko, and Shapiro (2000) had a

sample of 321 HCWs, and they used an anonymous questionnaire. Forty eight percent of the workers rated their HIV knowledge as moderate to sufficient, 89% requested for further training. These results suggest that there was need for an increase in education and implementation. A similar study was done on nurses' attitudes and knowledge pertaining to HIV and AIDS. The sample used was 562 HCWs using an anonymous voluntary questionnaire. Twenty one percent of the respondents considered the provision of education by the employer as inadequate (Van Wissen & Siebers 1993).

Kitaura, Adachi, Kobayashi and Yamada, (1997), also carried out a study to determine the knowledge of a sample of 174 dental care workers. A self-administered questionnaire was used, and the items were based on AIDS educational matters, knowledge of transmission of HIV infection, risk factors and prevention methods. The findings were as follows, 80% had more than average knowledge, 9% claimed comprehensive and another 9% claimed that their knowledge was poor. In conclusion most of the respondents requested additional education. Their major source of knowledge about AIDS had been acquired from the media such as television. The limited knowledge seemed to affect their attitude negatively.

Mbanya et al, (2001), in their study used quantitative and qualitative research methods. This is one of the few studies where a qualitative approach was utilized. A self administered questionnaire and a focus group discussion were used to study the knowledge of health care providers in a rural setting. They found the lowest scores on knowledge were recorded in the 50-59 year age group and were no better in the attitude and clinical practise section. The younger staff appeared to be more

knowledgeable about HIV/AIDS than the older ones. This was expected as the older members of staff were trained in the era before the HIV/AIDS pandemic. Thus knowledge was significantly influenced by the grade of the staff.

## **2.8. HEALTH WORKERS' ATTITUDES TOWARDS HIV/AIDS PATIENTS**

According to Baron and Byrne (2000) attitudes are learned, evaluative concepts associated with the way people think, feel and behave. This means that attitudes have three components namely, the cognitive part, which is the idea, the affective part, which is the emotion that charges the idea and the behavioral part, which is the inclination to act. One of the concepts in the study of attitudes consists of a person's evaluation of the liking of, or emotional response towards some object or person. Usually one's attitude is not just a matter of opinion. One's attitude is regarded as a reality, at least until someone can introduce new facts or arguments to change a person's mind (Eiser & Pligt, 1988).



Although the risk of HIV infection from patients is low, HCWs are still apprehensive if one considers the following facts. The incidence of needle stick injuries, according to the Center for Disease Control (CDC) (1989), is 1 per 250 needle sticks involving HIV infected material. In spite of this low incidence health care professionals, including physiotherapists, have been found to be avoiding direct care activities for PLWA (Wallack, Knox & Dow 1989). An estimated 5,800 HCWs have AIDS in America and more are said to have the virus but have not yet developed AIDS (Wicher, 1993). It was reported by the CDC that 2586 HCW were reported in 1988 of having AIDS due to occupational exposure (CDC, 1998). Although much has been done to study the characteristics and etiology of the disease, the AIDS debate is

continuing in trying to find other methods of transmission, and the best techniques for prevention (Wicher, 1993).

From this information, it is not surprising to note that the HCWs are still apprehensive about HIV, although the discovery of the disease was about 20 years ago (Essex, 1994). Gillespie (1993) argues that conflict between professional demands and the need for personal protection is a real construct, which manifests as an exaggerated cautiousness by health workers towards people with HIV/AIDS. Although the transmission and the patho-physiology of HIV are now known, some health care workers, like the general population, are still scared of working with people who are infected with the HIV virus (Balogun, Kaplan, & Miller, 1998).



The attitudes of the general public towards people with HIV/AIDS are mostly negative (Okoli & King, 1993; Williams & Kennedy 1989). These people are stigmatized as being contagious with incurable diseases. As HIV/AIDS, in particular, has generally been associated with groups of people such as commercial sex workers (prostitutes) and homosexuals who already carry a stigma (Wellings & Wadowath, 1990) including the fact that HIV/AIDS is a life threatening disease (Adebajo, Bangoda & Oyediran, 2003). Okoli and King (1993) expressed similar sentiments when they concluded that such negative attitudes were not only towards the disease or the virus itself, but also towards groups of people already affected and the means through which they get infected.

Another observation noted is that although most discussions on attitudes toward AIDS consistently focus on these negative feelings, an acknowledgement that such



attitudes often cause harm to the infected, exists. People sometimes do exhibit positive attitudes.

As these are normally expected reactions, they are generally overlooked and studies have not been conducted to evaluate them. As Silver, Hopp and Rogers (1989) have pointed out that, negative attitudes towards HIV patients do exist, but health care professionals have a responsibility both to their professions and society. They argue that based on principals of natural justice all patients have a right to be treated. The attitude of the physiotherapy profession in relation to HIV/AIDS, it has been established, has not been adequately surveyed (Dike, 1993). Therefore, rehabilitation workers must be aware of their own attitudes towards persons with HIV/AIDS and how their attitudes affect their interaction with these clients.



Unfortunately, despite the fact that the risk of infection by HCWs is low, (Chamberland, Conley, Bush, Ciesielski, Hammett, & Jaffe (1991); Kemppainen, Dubert & McWilliams (1996), HCWs still have the fear of contracting the infection, compounded with the fact that it is fatal and the stigma associated with AIDS, often make it difficult to the HCWs to establish a therapeutic relationship with an AIDS client (Shearer & Davidhizar, 1999). It seems the anxiety related to HIV/AIDS may be due to the fear of possible contracting of the virus. In a study to determine who is more at risk of contracting HIV between non health care workers and health care workers, the result revealed that HCWs were more at risk of being infected than non-HCWs, at the rate of 5.6% and 2.8% respectively. Knowing this, the anxiety they feel is to be expected.

Literature has shown that there are different views as to how much knowledge health workers have and what their attitude is towards HIV/AIDS patients. Attitudes held by health workers towards people with HIV/AIDS are usually negative, and this can affect the quality of care they render to HIV/AIDS sufferers. A number of studies have shown negativity in the perception of people with the infection (Hodgson, 1997). This negativity could be due to lack of knowledge on HIV/AIDS, about its prevention and transmission.

In a study of HCWs in Mexico, a sample of 204 HCWs was used, and a 3 page self-administered questionnaire was used. The findings were that the majority were willing to care for these patients. This contradicts the following studies, which found nurses having a negative attitude towards treating HIV/AIDS patients. Hentegen, et al, (2002); Sherman, (1996); Kemppainen, St.Lawrence, Irizzary, Wiedema, Benne, Fredrick & Wilson (1992), surveyed how HIV/AIDS relates to attitudes and practise of HCWs. A self-administered questionnaire was used in all these studies, using a Likert scale. The results were found to be as follows. They found 79% of the total sample believed that they were at risk of acquiring AIDS, mainly through occupational exposure. Negative attitudes were also noted; 20% of the workers thought the patients should be in quarantine. The results of this study showed clearly that nurses fear caring for HIV patients. The rest of the results indicated that the nurses had fear of contracting AIDS. What was not known was what influenced the nurses' attitudes. These results bring out the negativity of health workers to treating HIV positive patients.

A study by Adebajo, et al, (2003), on knowledge, beliefs and attitudes of 254 health care workers in Nigeria, found that 55% of the workers felt that AIDS patients were responsible for their illness; 35.45% felt that the patients deserved the punishment for their sexual behaviors. Of the total 18% felt that they would accept or encourage their children to visit an HIV positive individual. Two hundred and eight respondents were aware of the UPs for health workers, while (26%) twenty six percent were aware that UPs existed at their workplaces.

Interestingly, in one of the few studies on physiotherapists, no significance difference in attitudes between those who had had training in HIV/AIDS and those who had not was found. This was in a study by Sheen & Green, (1997), which was conducted in the United Kingdom at 9 institutions. An AIDS Attitude Scale questionnaire, with 67 items was used, on a sample of 144 physiotherapists. It would be expected that more positive attitudes would be noted from those who have had training in HIV/AIDS. Surprisingly training had no significant effect on attitudes. The overall results recorded were very high scores indicating positive attitudes towards people with HIV/AIDS. Women were more positive than men, with the older respondents having less positive attitudes. Those who had worked with people with HIV and AIDS had significantly more positive attitudes than those who had not worked with this group of people. Respondents working in high prevalence areas had more positive attitude.

Studies have also been carried out on rehabilitation workers to find out their perceived risk of HIV transmission. Self-administered questionnaires were used on 30 workers. Seven questions were asked of each respondent. It was found that the majority felt confident to treat known HIV positive patients (Dike, 1993). These

findings contrast with studies investigating how health workers themselves view the risk of HIV/AIDS transmission at work. Klimes, Catalan, Bond and Day, (1989) found that 24% expressed anxiety about infection, despite taking precautions. Comparisons of attitudes for different groups of HCWs have been found to be a problem because of the use of different instruments (Valimaki, Suominen & Peate, 1998).

A study conducted in Ghana on health care workers' attitudes towards HIV/AIDS confirms the existence of fear of infection due to working conditions such as the insufficient supply of basic protective items and inadequate information on the sero status of some patients (Awusabo-Asare, & Marfo, 1997). They used a purely qualitative method, utilized both in-depth interviews and a focus group, with a sample of 80 health workers. The study was on the attitudes and management of HIV/AIDS among health workers. It was observed that there was a gap between knowledge and practice among the workers.

In addition two major dimensions of attitudes regarding people with HIV/AIDS infections by some health care workers, is fear of treating them, sympathy towards them and the feeling of responsibility for the patients (Ezedinach, Ross, Meremiku, Esseini, Edem, Ekure & Ita, 2002).

In conclusion, enhancement in education can help to some extent in changing attitudes. However, knowing about universal precautions and not putting them into practice, would not improve the risk of contracting infection for health care professionals.



## 2.9. SUMMARY

Although there is limited work done on knowledge and attitudes of physiotherapists, there is available literature on studies done on other HCWs. Levels of knowledge among HCWs seem to be variable. In some instances there seem to be no relationship found between knowledge and attitudes. Yet, some studies have found that the more knowledgeable the HCW is, the more positive they are towards treating HIV/AIDS patients. According to Mitchell, (1999) knowledge alone does not seem to change the attitude by most of the workers. From research carried out on different medical professions, it is obvious that some health workers experience difficulty in establishing a therapeutic relationship with AIDS patients.

This chapter reviewed literature on previous studies related to knowledge about and attitudes of HCWs towards patients with HIV/AIDS. It looked at knowledge and the effect of knowledge on the attitudes of HCWs. The literature also outlined the conceptual framework, consequences of HIV, historical overview, risk factors, medical aspects of the disease and the role of the physiotherapist in HIV/AIDS. The extensive literature reviewed formed a basis for establishing categories.

The next chapter focuses on the research methodology that was used in the study. A description of the research design, setting, population, validity, reliability and ethical considerations are given.

## **CHAPTER 3**

### **METHODOLOGY**

#### **3.1. INTRODUCTION**

This chapter describes the methodology used in the study. It explains the rationale for the study design chosen and describes the research setting. The population, the sampling method, data collection and analysis are described. In conclusion, the ethical considerations regarding the study are explained.

#### **3.2. RESEARCH DESIGN**

The research design is a set of guidelines and instructions to be followed in conducting the research (Babbie & Mouton, 2001). To address the research problem a cross sectional exploratory study utilizing a qualitative research method was chosen. Balnaves and Caputi (2001) define a cross sectional study as a method which describes the population under study at a given point in time. In a qualitative method, qualitative theory gathered provides rich descriptions that enable the readers to understand, empathize and make sense of clinical reality (Morse & Field, 1998). One of the major distinguishing characteristics of a qualitative research method is the fact that the researcher attempts to understand people in terms of their own definition of their world that cannot be obtained in a quantitative research method (De Vos, Strydom, Fouche & Delpont, 2002). An exploratory design offered the researcher the opportunity to focus on finding answers to the questions centered on the social experiences of the informants (Denzin & Lincoln, 2000).

In their own words physiotherapists participating in the study expressed their views on what they know about the transmission of HIV/AIDS, their perceived risks of HIV transmission in the workplace, and their experiences with HIV/AIDS patients. Face to face interviews were conducted using open-ended questions with the aid of an interview guide. The purpose of using an interview guide was to collect detailed and pertinent information. Probing was done where there was a need for more information or clarity. The process of thematic data analysis was applied.

### 3.3. RESEARCH SETTING

The study was carried out in three state-funded hospitals and three private medical centers in Lusaka, the capital city of the Republic of Zambia. Six of the eight institutions offering physiotherapy services in the province were used. Due to the protocol for obtaining permission from one of the targeted institutions, a military hospital, and due to my limited stay in the country I did not include the said institution in the study. A brief description of the hospitals and medical centers used in the study are given below.

**University Teaching Hospital (UTH).** This is the biggest government-funded hospital catering for both adults and children in Zambia. It is a teaching hospital and is attached to the University of Zambia. The latter offers undergraduate and postgraduate degrees in medicine and nursing and the undergraduate degree in physiotherapy. UTH is also a referral hospital and it receives patients from the whole country for both medical care and rehabilitation. This hospital employs twenty physiotherapists.



**Chainama Hills Hospital** is one of the hospitals offering both psychiatric and general medical services in Lusaka. This hospital offers in-and out-patient physiotherapy services, which cater for patients located in the eastern part of the Lusaka Province. This is a training school for assistant medical officers and laboratory assistants. It employs two physiotherapists.

**Action for Disability and Development** is a non-governmental organization (NGO) offering outpatient physiotherapy services to children in the community at no cost. The physiotherapists working at this NGO attend to physically disabled children in six clinics out of a total of twenty-four clinics, which are situated in the province. The organization employs three physiotherapists.



**Zambia Italian Orthopedic Hospital** is a small unit whose primary mission is the free treatment of physically disabled children coming from the 10 Cheshire Homes in Zambia. In addition they receive referrals from other health institutions and outreach programmes. The running costs are largely met from the fees charged for private consultations and surgery of adults, supplemented by donations from the Christoffel-Blinden-Mission and other well-wishers in Zambia and abroad. Physiotherapy services are offered for both in-and out-patients. There are two physiotherapists.

**Kalcare Outpatient Facility** is a fee paying privately owned physiotherapy clinic. It offers outpatients and home-based physiotherapy services to both children and adults. It employs two physiotherapists.

**Monica Chiumya Memorial Hospital** is a privately owned, fee paying medical center. It offers physiotherapy services to in-and out-patients, adults and children. It employs two physiotherapists.

### **3.4. RESEARCH SUBJECTS AND SAMPLING**

The populations under study were physiotherapists in Lusaka, Zambia. As this study used a qualitative research method, a purposive sample consisting of 12 practising physiotherapists who were willing to participate, were selected from government hospitals and private practices identified for the study. According to Neuman (2000) purposive sampling occurs when one selects cases with a specific purpose in mind. Brink (1996) refers to this method as the judgment of the researcher to select subjects who are representative to the phenomenon and who are conversant with the issue in question.



Four out of twelve physiotherapists were selected from UTH, three working with the adult patients while one is working with pediatric patients. Two were recruited from each of the following institutions, Chainama Hills Hospital, Action for Disability and Development and from the Italian Orthopedic Hospital. One physiotherapist participated from the Monica Chiumya Memorial Hospital and one from Kalcare Outpatient facility.

#### **3.4.1. Inclusion Criteria**

The participants had to meet the following inclusion criteria. They had to be practising physiotherapists working in the selected settings at the time of data

collection and willing to participate at an arranged time. Non-practising physiotherapists were excluded from the study.

### **3.5. DATA COLLECTION**

Data was collected in Lusaka, Zambia between December 2003 and January 2004. The researcher conducted face-to-face interviews lasting for approximately 45 minutes. These took place during the participating physiotherapists' lunch time at the selected settings.

#### **3.5.1. Instrument**

A semi-structured interview guide with open-ended questions, informed by existing literature on the subject, was used (Appendix E). The instrument consisted of a section for obtaining demographic data such as age, area of practice, years of service and the level of education of the participants. Probing as a technique was used to get clarity and further explanation of the issues being discussed. Interviews were tape-recorded. The interviews were conducted in English.

### **3.6. PILOT STUDY**

A pilot study was conducted prior to the actual data collection using four physiotherapists who were not part of the study. This was undertaken as a trial run to determine whether the questions were clear and the appropriateness of the interview guide. It became necessary to delete one question due to the repetitive nature of the

answers. The question was, “how would you contract HIV/AIDS from a patient in your work situation?”

### **3.7. RELIABILITY AND VALIDITY**

Bless and Higson-Smith (2000) states that reliability of an instrument is the degree of consistency with which it measures the attribute it is supposed to measure. On the other hand validity, according to Silverman (2000), is the degree to which an account truthfully represents the social phenomena to which it refers. However, this is only useful in quantitative research.

Since reliability in a qualitative methodology cannot be established as in a quantitative research method, alternative approaches to measure the authenticity of a study such as credibility, transferability, dependability and conformability need to be used (Baumgartner, Strong & Hensley, 2002; Marshall & Rossman, 1995).

#### **3.7.1. Credibility**

According to Marshall and Rossman (1995) one way in which the researcher ensures credibility of the study is to show that the inquiry was conducted in such a way as to ensure that the subject was identified and described accurately. In this study, firstly the researcher identified the ideal participants and gave a description of them. Secondly the researcher ensured the tape recorder was in good working order prior to the commencement of interviews. After each interview, the researcher listened to the quality of the recorded interview. This was to verify the effectiveness of the recording. This was necessary because if an independent analyst wished to analyze

that data they should be able to obtain the similar findings. Participants ensured that the transcribed accounts reflected what they had said. These procedures were attempts at obtaining credibility of the study.

### **3.7.2. Transferability**

Marshall and Rossman (1995) refer to transferability as “how the research findings can be generalized or transferred from the representative sample to the population and which may be problematic in qualitative research.” The researcher also requires to provide sufficient descriptive data “so that others can consider the applicability of the data to other settings” (Polit & Hugler, 1995). In this study an accurate description of the research methodology and data analysis that is supported by direct quotations from the interviews were displayed. This approach constitutes “a thick description,” which is a condition of transferability (Marshall & Rossman, 1995).

## **3.8. DATA ANALYSIS**

Miles and Huberman (1994) define data analysis “as three linked sub-processes: data reduction, data display and conclusion drawing verification” while Marshall & Rossman, (1995) describe it as the procedure categorizing, structuring and putting meaning to the mass of collected data. Each of the interviews was listened to and then transcribed verbatim with hesitations and laughs indicated. The transcriptions were then compared to the audio taped recordings to confirm accuracy (Neuman, 2000). This was followed by the verification of the transcripts with the participants. After reading the process notes and transcripts a few times, analysis of the data commenced. The transcripts were re- read along side the list of categories

and sub-headings to establish the degree to which the categories covered all aspects of the interview. Using the priori method of coding different categories and themes from the data were formed. A priori method, according to Bailey (1997), is when categories are named before data collection. The naming of categories was guided by literature.

### **3.9. ETHICAL CONSIDERATIONS**

Ethical issues were observed in all aspects of the research. The Senate Research committee and the Human subjects Ethics committee of the University of the Western Cape approved the methodology of the research (Appendix A). Permission was sought from the Executive Directors of the respective institutions to conduct a study in their institutions (appendix B). Informed consent was obtained before carrying out the study. The aim of the study was explained to the participants (appendix C). Permission to use a tape recorder was sought from the participants. Prior to the interview physiotherapists were informed that participation was voluntary and that they had a right to withdraw from the study at any time. A signed consent was obtained from each participant before commencement of interviews (Appendix D). Participants were assured of confidentiality of the information given and that in order to maintain anonymity, their names would not be used in the study. A counselor was recruited from the UTH to be available in case questioning elicited emotions related to the participants' personal experiences with HIV/AIDS sufferers.

### **3.11. SUMMARY**

This chapter focused on the methodology of the study. The choice for qualitative research method was motivated. Results obtained from the interviews are presented in the next chapter.



## **CHAPTER 4**

### **RESULTS**

#### **4.1. INTRODUCTION**

This chapter endeavors to give meaning to the data by presenting it clearly using a narrative report writing style. The analysis and interpretation of the qualitative responses obtained through recorded face-to-face interviews are described under themes and categories. The interviews were conducted within a period of two months between December 2003 and January 2004. A semi-structured interview guide was used to collect data, with probing incorporated. This data is based on the informants' personal experiences. The elements of knowledge and different attitudes in the interview guide were formed from similar studies that had been undertaken previously.



#### **4.2. DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS**

The informants consisted of twelve practising physiotherapists selected from hospitals and medical centers in Lusaka. There were four male and eight females treating adults and children with medical, surgical, orthopedic and psychiatric conditions. The ages of the informants ranged from twenty-two to thirty nine years. The qualification of all the physiotherapists in the study was at a 3-year diploma level. The majority of the participants had six years and more of working experience while the minority had five years and less.

With regard to the area of practice, half of the participants worked with adults and children in one institution, while the rest worked with adult, pediatric or psychiatric patients.



The demographic data are documented in Tables 4-1 and 4-2 (pp40 & 41). They present a general profile of the participants in the study.

**Table 4-1: Demographic Profile of Study Participants**

<b>Characteristic Variable</b>	<b>Number of Participants</b>	<b>%</b>
<b>Gender</b>		
Male	4	33
Female	8	66
<b>Age</b>		
22-27	4	33
28-33	4	33
34-39	4	33
<b>Educational level</b>		
Diploma in physiotherapy	12	100
<b>Work experience in years</b>		
1-5	5	42
6-10	6	50
11 and above	1	8
<b>Area of practice</b>		
Adults only	3	25
Paediatrics only	3	25
Adults & paediatrics	4	33
Psychiatry and general	2	33

n=12

**Table 4-2: Institutions of Employment**

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<b>Name of institution</b>	<b>Number of participants</b>	<b>%</b>
<b>State hospitals</b>		
Chainama Hills Hospital	2	16
UTH/adult	3	25
UTH/paediatric	1	8
<b>NGO</b>		
ADD	2	16
<b>Private Centers</b>		
Italian Hospital	2	16
Kalcare	1	8
Monica Chiumya	1	8



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n=12

Most of informants were from the University Teaching Hospital (UTH) while the smallest number were from Monica Chiumya and Kalcare.

In this study the researcher had some predetermined categories derived from literature, which guided the data collection. Data was analyzed by thematic analysis (Table 4-3). This is the identifying, coding and categorizing of the patterns in the primary data (Baumgartner et al, 2002).

**TABLE 4-3: Summary of Categories and Themes**

<b>CATEGORIES</b>	<b>THEMES</b>
1. <b>KNOWLEDGE</b>	Methods of transmission Stages of infection Clinical signs and progression Risks and prevention of HIV transmission in the work place Benefits of physiotherapy Treatment
2. <b>PHYSIOTHERAPISTS' SELF ASSESSMENT OF KNOWLEDGE</b>	Areas lacking knowledge
3. <b>ATTITUDES</b>	Sorry/Pity Neutrality Judgmental Respondents' fear and risk of infection Basic human rights Willingness to treat Effects on informants
4. <b>SOURCE OF INFORMATION</b>	Mass media
5. <b>PHYSIOTHERAPISTS' NEEDS AND RECOMMEDATIONS</b>	



### 4.3. KNOWLEDGE

#### 4.3.1. Methods of Transmission in HIV/AIDS

All the informants were aware that the most common mode of transmission was through sexual activities. The informants mentioned this without hesitation. The other modes were mentioned after some thinking and uncertainty. These were the sharing of unsterile needles and blades and blood transfusion. One of the informants said:

*...Of course sexually, that is one, then the use of needles. I mean if you are exchanging the use of needles, razor blades, and all with someone who is HIV positive... (2).*

Only a few respondents were able to mention mother to child transmission (MTC), one of them said:



*I know there are different transmissions. I know there is mother to child transmission, there is intercourse, which can be man and woman and people of the same sex (10).*

*...as for children through breastfeeding as well during labor, not much during gestation (10).*

The assessment of knowledge on hepatitis B was included because of the similarities between hepatitis B and HIV in terms of transmission and prevention. Moreover, hepatitis B is not publicized in the media as much as HIV/AIDS. As a result most of the informants were ignorant about prevention and contracting of hepatitis B in the

workplace and this brought out some interesting answers. Some of the informants had never heard of this disease:

*I don't know what hepatitis B is (3).*

The majority displayed ignorance as to how they could protect themselves from this disease. Very few of the informants knew that the transmission methods for HIV are similar to hepatitis B transmission:

*I am not really sure (9).*

*Frankly speaking I don't know how I can do that. But I know that hepatitis is quite dangerous. I don't have patients with hepatitis so I really don't know how (7).*

From the answers it was clear that they lacked knowledge in this area as well. It also seemed that most of the informants did not know that the prevention methods for HIV/AIDS and hepatitis B are similar. This became apparent because only one informant was able to give this answer:

*Methods are similar to avoiding AIDS, avoid body fluids, contact with open wounds, use gloves (12).*

Only one informant mentioned vaccination as a way of preventing infection. This shows that this vaccine is probably not being offered to employees in most of the health institutions:

*By vaccination, yes like right now we are having vaccinations around the country and they are encouraging every health worker to be vaccinated (5).*

### 4.3.2. Stages of Infection

Most of the informants were aware of some of the stages of HIV/AIDS, although they didn't know the correct terminologies used for the different stages. They knew that the infected patient initially shows no clinical signs and then later they suffer from diseases such as diarrhea and repeated chest infections due to their declining immunity. Finally they develop full-blown AIDS. An informant said:

*Okay, when someone has just been infected with the HIV virus you have what they call incubation period that is the virus multiplies and then afterwards you have the active period. Now the HIV period, after which then it goes into AIDS, full-blown (9).*

*I wouldn't be very sure, because I haven't really gone into details (12).*

None of them mentioned the window period as one of the stages of the infection.



### 4.3.3. Clinical Signs and Progression

#### 4.3.3.1. HIV in children

The informants reported that they were seeing conditions in children that are not normally associated with HIV/AIDS. These were cerebral palsy, TB meningitis and atypical neurological conditions. The responses were as follows:

*... CP is one of them because most of the children that have HIV suffer from this disease. But they are mostly affected by meningitis and in this regard they have brain damage. As a result they are usually hemiplegia, spastic quadriplegia... (11).*

*... in our unit the most difficult ones we are seeing are TB meningitis and encephalitis (10).*

#### **4.3.3.2. Neurological complications of HIV/AIDS**

All the informants were able to mention a few of the neurological complications of HIV/AIDS. Hemiplegia and paraplegia seemed to be the most common ones known to them. All the informants had encountered motor impairments such as those seen in stroke patients. ... *I have seen a lot of people with hemiplegia and I have seen a lot of people with Guillain Barre Syndrome (GBS) (1).*

*GBS usually is the one that sets in and then it will present itself for a long time in a way that the patient will be paralyzed in the lower limbs and then the onset is from maybe the lower going up, it ascends (3).*

The responses from the informants working with children

*...even cerebral palsy in children... (10).*

*Developmental delay without any neurological symptoms (11).*

*... monoplegia, just one hand and facial palsy(2).*

Neuropathies were mentioned as some of the complications e.g. facial palsy:

*Patients with HIV/AIDS develop neuropathies, they have polyneuropathy... (4.)*

#### **4.3.3.3. Non-neurological complications**

Some of the informants mentioned pulmonary tuberculosis (PTB), diarrhoea, rashes, painful joints, hair changes, TB spine, chest congestions, lympoedema, bronchiectasis, mental illness, personality disorders and bipolar mood disturbances conditions. Surprisingly no one mentioned Kaposi's sarcoma or pneumonia specifically as a complication:

*Pulmonary TB and most of the chest conditions this time are related. The TB may spread and become meningitis, which affects the spinal cord (4).*

*...A lot of children... it usually starts as pulmonary tuberculosis, some of them after treatment it ends up with bronchiectasis so we have to treat most of them with chest physio (8).*

A number of skin conditions, previously not associated with HIV/AIDS, were mentioned as being more prevalent. Therefore one can understand why the HCW are suspicious of any patients presenting with skin rashes. Some of the responses were:

*TB, skin conditions, painful joints and chest conditions (2).*

An informant stated that she did not know what the non-neurological complications were. The ignorance was blamed on the non-disclosure of the HIV status of the patient. There was a general feeling amongst the respondents that, although they may have been treating some conditions that were non-neurological complications of HIV, not knowing the status of the patient made it difficult to associate the conditions with HIV/AIDS:

*I am not really sure. Maybe I have but I didn't know because some patients don't say that they have this problem, so sometimes it is difficult to know (1).*

Informants working in the psychiatric institution reported having come across mental illness, personality disorders and bi-polar mood disturbances. The informants from this hospital stated:

*... Actually I have come across mental illness that are HIV related. Some are personal disorders, even bi-polar conditions (12).*



#### 4.3.4. Risks and Prevention of HIV Transmission in the Work Place

All the informants mentioned the wearing of gloves as a way of protecting themselves from contracting HIV/AIDS from a patient. None of the informants could mention all the protective barriers used in the work place, but they were aware of the need to wear gloves when assisting a patient clear sputum from their chest as (5) explained:

*...during postural drainage, we should protect ourselves using gloves and just be careful that we do not get in contact with the fluids from the patient. The other thing is to avoid body fluids from the patients and any blood products.*

Protective clothing were mentioned without elaborating on what they should consist of:

*... wearing protective things, when treating a patient who you know is HIV positive or if the person has got fresh sores or wounds (8).*

They went on to say:

*...when physiotherapists have cuts they should cover them and wear protective garments, especially when the patients have got oozing wounds (12).*

Some informants mentioned the wearing of a mask as a form of protection. One informant felt that it would be difficult to avoid getting infected because of the nature of physiotherapy tasks where you have to touch the patient during treatment:

*Physiotherapy is one of the professions that have a lot of difficulty in trying to protect themselves from getting HIV, in the work place. Especially because we treat*

*using our hands, we have not experienced or been taught to use gloves when treating people (7).*

#### **4.3.4.1. Awareness of Universal Precautions (UP)**

Most of the informants did not seem to have heard about universal precautions, others had no idea as to what they were. Others said this was new to them. After an explanation from the researcher, some realized that they knew about it, but the terminology was unfamiliar. Responses ranged from expressions such as:

*That's new to me (1).*

*I have no idea (10).*

*What is that? (3).*



After an explanation they continued with:

*... usually you have to use protective clothing and you need screening and all (1).*

*In my daily treatment, we ask the parents to dress the babies adequately with waterproof pants, ... (10).*

A few of the informants explained that in some institutions they are not able to adhere to the precautions in their daily practise. This was due to the unavailability of the protective clothing needed. According to one informant:

*... it cannot be followed at my work place because of lack of resources (5).*

A sense of helplessness about the lack of resources was detected in the informants' response. Some informants felt hesitant to wear gloves, due to fear of stigmatizing the HIV/AIDS positive patients:

*...You are trying to show that there is a barrier between you and the patient. So usually the protective clothing like masks or gloves we don't use them (12).*

Where other informants were willing to wear protective clothing, it appeared that some institutions did not take their fears about infection in the work place seriously:

*...When we tell our employers that we are exposed to infection, like TB, and you know with our treatment we have to put the child so close to our body, its quite tricky. Employers do not supply the clothing (12).*



However, some institutions did not seem to have a problem supplying the gloves to physiotherapists. A department of physiotherapy at another institution had a stock of these:

*As a department we are supplied for the department (9).*

#### **4.3.4.2. Policy concerning Universal Precautions**

There were a number of informants who felt that the policy of wearing protective clothing should be applied to all patients irrespective of their HIV status:

*So maybe a policy can be put across that physios must start using gloves every time they treat a patient, I think that is the best way forward (7).*

This was said probably because patients do not reveal their status. There was also a feeling that if specific precautions were instituted for HIV positive patients only, this would be enforcing discrimination against them:

*It should be for all patients, because the HIV patients do not just have problems of HIV, they have infections that other people also contract so you can also be exposed to those infections (1).*

Touching a person was alleged to be a mode of contracting virus. This is documented in the following statement:

*I think specific precautions should be for all patients because at a certain stage in HIV you know you can contract it by touching (12).*

However, this is only true if a person such as the carer has a cut and then touches the infected body fluid.



#### **4.3.5. Benefits of Physiotherapy**

##### **4.3.5.1. Neurological complications**

A few informants felt that the rate of recovery in HIV/AIDS related stroke compared to a stroke due to others causes, differs. In comparison with other causes of stroke, it was more difficult for them to achieve positive results in patients with HIV/AIDS related stroke:

*...Because of the other associated diseases, the condition will be different and takes longer to see results and because the HIV/AIDS patient and the relatives need counseling (12).*

Others disagreed by saying:

*...the strokes benefit because usually it affects their physical abilities ..., even for the GBS, it works, the patients get better (9).*

Yet other informants reported how their patients with paraplegia had achieved, full recovery:

*... they have recovered and driving, that was 100% recovery (7).*

They went on to say that patients with facial palsy would benefit by treating them with electrical stimulations:

*Stimulating the affected nerve treats facial palsy. Polyneuropathy will benefit by physiotherapist coming up with a rehabilitation process, by giving exercises (5).*



There was a general feeling that neurological deficits irrespective of the cause, responded favorably to treatments:

*The same way they influence all the neurological complications (laughs) to enhance the ambulation process of a patient (4).*

Concerning the treatment of children with developmental delay,

*...in developmental delay I think functional rehabilitation would help (11).*

The need for physiotherapists to train and counsel parents on nutrition and feeding was also mentioned in the holistic management for cerebral palsy children:

*With our approach we don't just look at physio, we are also looking at training the parents on the nutritional part of it. ...we train them on positioning of their disabled children during feeding and how to use the gadgets to ease the problem. I also counsel the parents because I have done some basic counseling (11).*

#### **4.3.5.2. Non-neurological complications**

Most of the informants were aware that physiotherapy could influence some non-neurological complications. They found chest physiotherapy beneficial for those patients with respiratory conditions. It was stated as follows:

*...we are seeing a lot of children with bronchiectasis disease, and we are treating most of them with chest physio with positive results... (8).*



Informant (7) reported having found postural drainage an effective treatment for congested chests:

*... postural drainage definitely improves their condition.*

However, the uncertainty of having treated patients who may have been HIV positive was mentioned again. It was therefore difficult for one informant to state whether HIV/AIDS patients benefited from physiotherapy:

*I am not really sure. Maybe I have but I didn't know because some patients don't say that they have a problem, so it is difficult to know (5).*

Benefits of physiotherapy were also evident in those experiencing painful joints. As was stated:

*... we give them exercises as well, and we also do some massage which really helps, them (5).*

*Most are benefiting from physio, those that are referred to our dept (10).*

#### **4.3.6. Treatment**

##### **4.3.6.1. Anti-retroviral drugs**

The majority of the informants knew that anti-retroviral drugs are used by HIV/AIDS patients and are available. However, most of them did not know what these drugs were and what combinations of drugs are used. The following statements reflect the informants' lack of knowledge:

*I do not know the names, but I know them. Because someone dear to me is on the combination of three (1).*



*... I know that they are herbal things that people have been trying to use (11)*

##### **4.3.6.2. ARV side effects and physiotherapy**

Some informants found it difficult to identify complications of ARVs because patients do not disclose that they are taking the drugs, and were aware that these drugs are harmful:

*I think most people don't come out and say they are on ARVs, for you to know that they are reacting, it is difficult (12).*

*...They say that these drugs are kind of toxic. That's all I know. I can't comment on the effects of the drugs (8).*

Informants said that they had seen patients who complain of fatigue and those who feel cramps in the lower limbs:

*I think they are some side effect, because some people would come here and tell you that they are developing numbness of some limbs and there, physiotherapy would help... people feel fatigued...(3).*

An attempt was made to find out from the informants whether patients suffering from ARV complications would benefit from physiotherapy. An example of these complications mentioned was peripheral neuropathy:

*... when you massage, the muscles actually relax and feel much better (3).*

*... All the clients that I have treated who are on HIV treatment, their conditions improved (9).*

Other informants stated that they had not treated patients with ARV complications:

*Since I haven't come across somebody who is taking the ARVs I wouldn't say much (11). Well I don't know (2).*



Yet some of the informants felt that physiotherapy couldn't influence the complication of the ARVs and said:

*Well I don't think physio would really influence the side effects such as loss of appetite (4).*

#### **4.3.7. Self Assessment of Knowledge**

The study informants were questioned to rate their level of knowledge of HIV/AIDS. Most of the informants admitted to having very limited knowledge on physiotherapy in HIV/AIDS and other areas related to the infection. There was also a feeling that the knowledge they had was basic:



*My knowledge is not good (1)*

The majority said they needed to know more.

*There is still much more to learn (2).*

*I know just the basics (3).*

The limited knowledge could be attributed to the fact that HIV/AIDS may not have been covered sufficiently in the physiotherapy curriculum. All the respondents revealed that they did not cover HIV/AIDS as a subject:

*...we didn't cover much on AIDS, we learn through treating patients (3).*

*Absolutely not, I think we did not cover that (7).*

*I can't remember covering the topic at college, it was just like a passing comment (2).*



#### **4.3.7.1. Areas lacking knowledge**

Informants felt that they needed more knowledge and in-depth information on HIV/AIDS transmission, the pathology and ARV drugs and their effects. The other was the need to know more about physiotherapy in relation to the comprehensive management of the patients.

*...the physical disability that sets in (3).*

*... the psychological effects...(8).*

*Physiotherapy treatment in HIV/AIDS (6).*

*What to do if a patient has side effects of the drugs, transmission and, side effects (2).*

The informants also wanted more information on the causes of unexplained paralysis in the children they are seeing these days. If it is HIV related what role can they play apart from doing exercises:

*...because you find someone has unexplained paralysis, they can't walk but it is not cerebral palsy. So we need to know the cause. If it is HIV what can be our input apart from just doing exercises with the children (7).*

#### **4.4. ATTITUDES TOWARDS HIV/AIDS PATIENTS**

A variety of attitudes were detected in the participants' responses. Their feelings towards PLWA ranged from feeling bad, sorry or empathetic to neutrality.

##### **4.4.1. Sorry /Pity**



*Sometimes you feel sorry for them, sometimes you empathize with them (10).*

Their facial expressions and tone of voice were an indication of their feelings:

*... pity for others, it is like they never asked for it, they are like victims of circumstances (2).*

*I feel bad especially for children because they are innocent (6).*

##### **4.4.2. Neutrality**

However, most of the informants said they had no specific feeling for HIV/AIDS patients, as they regard them as any other patient they encounter in their daily work:

*I don't have any ill feelings .... They are patients and its one of the diseases and you cannot blame them (4).*

*I feel they are people like us, and there is nothing wrong with them. It is just that they have a condition that is quite severe and it's killing a lot of people. It is like cancer or diabetes (7).*

*I feel it is unfortunate position and they should be treated with dignity (5).*

Some of the responses on how they felt about HIV/AIDS patients who contracted the infection through unprotected sex were:

*...I feel sorry (2)*

I think it is not completely their own fault, as some did not have knowledge of the transmission (5).



#### **4.4.3. Judgmental**

There was a negative response from a few of the informants regarding their feelings towards PLWA. They felt that some of these people were careless and had themselves to blame if they did not protect themselves from contracting the infection:

*I think somehow I blame them, because they should have known what they were doing (4).*

*I think it is kind of silly and foolish because if someone is mischievous and going for unprotected sex its suicide (9).*

This informant, like the previous one, felt the infected patients deserved it. It was interesting to note that although most respondents sympathized with the infected

patients, the response shows that their feelings of sympathy depended on how one contracted the disease. In the case of contracting the disease because of unprotected sex, the informants blamed the patient for being careless.

#### **4.4.4. Respondents' Fear and Risk of Infection**

##### **4.4.4.1. Risk of infection**

The informants were asked to give their opinion on their treating of HIV/AIDS patients and about their concerns of the same. Overall the physiotherapists felt that they were at risk and felt concerned that they may acquire the infection during treatment of patients. The following extracts reflect their feelings:

*We are at risk because we are in contact with clients. ... Almost touching with the patient, especially when they are so dependent on you (7).*



According to another informant:

*... we are at a higher risk because it's not every person who knows that they are infected (1).*

On the other hand, an informant expressed the need to treat, as she has accepted to do. Her desire was to learn more about the infection from the practical experience:

*I have been attending to HIV patients on a regular basis before. Initially I used to have that fear but went on, I desire to treat them. I should learn from them (4).*

#### 4.4.5. Basic Human Rights

It was evident from the answers given that, some informants acknowledged that HIV/AIDS patients were entitled to the same care as any other patients, since medical care is a human right:

*...they need even more care because they need to have a lot of things explained to them, be monitored and I think mostly they need encouragement and counseling (7).*

*A patient is a patient, treat equally (6).*

*They are entitled, it's a human right (5).*

#### 4.4.6. Willingness to Treat

The informants were asked how they would feel if they had to treat HIV/AIDS patients on a regular basis. They replied that they were already treating such patients and did not mind doing so. They felt that they had a moral obligation to help the patients, and that they were duty bound to provide service. Their opinions are described below:

*I am here to attend to clients... I think maybe even right now I see a lot of patients some of them knowingly some unknowingly (5).*

*...I would not be affected at all (9).*

*I am helping humanity that I care about (7).*

In addition the informants mentioned that they didn't have a problem concerning the treatment of these patients. Others felt that there is a need to treat PLWA like any other patients. These perceptions are illuminated in the following quotations:

*I have no fear of treating these patients (6).*

*...treat them the same as others (2).*

The majority of the informants felt that physiotherapists who refuse to treat HIV/AIDS patients should change their profession. There was a general feeling that a person who refuses to treat PLWA was professionally undesirable and that they were ethically unfit to practise:

*They should change their career because if you choose to work with people who have a medical problem you have to be caring (7).*

An informant disagreed with the rest by saying:

*If they feel they are at risk it is alright for them to refuse (9).*

Another issue that came out was the health workers' loss of interest in the patient, after the disclosure of their HIV positive status:

*The attitude of health care workers when the patient is declared positive is usually loss of seriousness to the treatment (8).*

#### **4.4.7. Effects on Respondents**

##### **4.4.7.1. Physical**

When asked if the handling of HIV/AIDS patients on a regular basis could affect them, informants mentioned physical and emotional effects associated with treating these patients. They felt that it would be too tiring, and that it would depend on the workload:

*I think it would be tiring, depending on the conditions they present with. Because imagine if you have all of them with hemis or paraplegias for the whole day I think it would be taxing (2).*

#### **4.4.7.2. Emotional**

Others felt they would be more at risk of contracting the infection. They also expressed an aspect of being emotionally affected. They felt a need for the physiotherapists to be counseled and taught coping skills in order to help them attend to PLWA effectively. The feelings were expressed in the following words:

*...you feel more at risk of contracting the infection, even when you know the modes of transmission (laughs). (8)*

*...because the disease depresses some patients, I think the physiotherapist needs to know how to counsel*



It was suggested that physiotherapists should be counseled to try and understand the disease:

*You really need be counseled to help you go through that because sometimes you may 'burn out' (10).*

*I think they need to be sensitized, on a serious note (11).*

*I think they need to be educated so that they can understand the condition (5).*

## 4.5. SOURCE OF INFORMATION

### 4.5.1. Mass Media

Most of the informants got information on HIV/AIDS from the media, namely the radio, newspapers and television:

*I read from newspapers and magazines (6).*

*...and the radio (2).*

Others got it from their spouses or neighbours:

*We are right next to a project on HIV/AIDS. That is how I get my information (11).*

*My husband works with HIV related organization, so you get pamphlets, books... (1).*

Very few informants got information from the library since most of the institutions do not have these facilities. Others were unsure because they did not even bother to visit these libraries. Of the few institutions that have libraries, the latest journals and books on HIV/AIDS information were not available:

*We have none. I don't think administration thinks it's important (1).*

*I don't know whether they have this information. There is a library that I don't visit (3). ... it is not well equipped nobody bothers (4).*

An informant working at the biggest hospital in the country which is also a teaching hospital said:

*I use the university library. It has some information, but not up to date (5).*



## 4.6. PHYSIOTHERAPY NEEDS AND RECOMMENDATIONS

### 4.6.1. Inclusion of HIV/AIDS in curriculum

Many different concerns were expressed during the discussions. A few informants felt that physiotherapy training should include HIV/AIDS in the curriculum:

*If HIV is introduced even at postgraduate level that will help us a lot... it is very difficult to treat these patients effectively because you don't know what you are dealing with (1).*

There was also a general feeling that physiotherapists should acquire counseling skills, because they do a lot of 'counseling' while treating patients. The need seems to have increased due to the unique nature of the disease:

*That mainly counseling should be entrenched in the training of physiotherapists (12).*  
*I just would like to say that maybe if physiotherapy could introduce HIV/AIDS in the undergraduate programme... like other courses (3).*

The informants felt it would be helpful to have data on children who have cerebral palsy due to HIV. There was a feeling that this would assist in terms of protecting themselves when treating these patients:

*We need the data, it is very important to know that these children have become CPs because of HIV. That would be very helpful in terms of us protecting ourselves (11).*

## **4.6.2. Improving Physiotherapy Services to HIV/AIDS Patients**

### **4.6.2.1. Treatment area**

The need for well-ventilated treatment areas came out as one of the important improvements needed in the department treating paediatrics cases. There was also the need for more rooms in some department. Extra rooms would give some privacy when assessing patients and counseling them. They would also feel more confident in the giving of information concerning their condition:

*...at the clinics the treatment area is congested and small. There are children who have got TB and the ventilation is not very good (11).*

A few agreed saying:

Improve the privacy so that patients are able to answer and ask questions freely (5).



### **4.6.2.2. Nutritional needs**

An interesting response came from some of the informants who worked with children, when asked about how they would improve physiotherapy services for PLWA. They were concerned about the nutrition of their patients:

*...probably nutrition. Since I work with children I feel their nutrition needs to be improved. Most of the parents are very poor they cannot even afford soya flour (11).*

#### 4.7. SUMMARY

Findings from the study reveal that the informants had a positive attitude towards HIV/AIDS patients, although they had limited knowledge in some aspects of HIV/AIDS. One of the concerns of the informants was the fear of infection in the work place. The results also revealed that the informants were aware of the common modes of transmission of HIV/AIDS in the workplace. The results also highlighted the need for counseling skills to be imparted into the informants and the need for HIV/AIDS to be included as a module in the physiotherapy-training curriculum. Almost all the medical institutions had no libraries. Therefore there is a lack of latest literature on HIV/AIDS. The need for providing privacy for patients in physiotherapy departments came out clearly. The next chapter presents the discussion of the results.



## **CHAPTER 5**

### **DISCUSSION**

#### **5.1. INTRODUCTION**

In this chapter the results of the study are discussed in relation to its purpose, objectives and relevant literature. This study explored the knowledge and attitudes of physiotherapists concerning HIV/AIDS patients in their care, as well as their perceived risk and fears of HIV transmission in the workplace.

#### **5.2. PHYSIOTHERAPISTS' KNOWLEDGE**

This included their knowledge on various aspects of the condition as discussed below.



##### **5.2.1. Transmission**

Nearly all the informants identified sexual intercourse as the most common mode of HIV transmission. According to literature over 70% of transmission is through heterosexual intercourse. Yet historically, HIV infection was labeled as a disease resulting from homosexual intercourse. Subsequently heterosexual transmission exceeded this pattern (Jackson, 2002). Other modes mentioned were blood transfusion, the sharing of needles among drug users and the sharing of blades. The fact that the informants only mentioned a few modes and not others such as MTC transmission did not mean they were not aware of them. An assumption could be made that the ones mentioned by the majority are possibly the most publicized. The informants' knowledge on the modes of transmission was quite good in this study. Probably because they have all been treating PLWA in their respective institutions.

The findings in the present study are similar to the results found by Useh (2003), in his HIV/AIDS pandemic comparative study of Nigeria and Zimbabwe where he assessed the knowledge and roles of physiotherapists in the two countries. He found that the Zimbabweans were more knowledgeable in the modes of HIV/AIDS transmission. This was because the physiotherapists in Zimbabwe had been treating large numbers of PLWA compared to the Nigerian physiotherapists (ibid).

The comparison of knowledge on the transmissions of HIV and hepatitis B in this study showed that the informants were more knowledgeable with the transmission of HIV than with the transmission of hepatitis B. This could be because of the non-disclosure of the patients' hepatitis B status, both by the Doctors and the patients. The other reason could be because physiotherapists rarely treat the complications of hepatitis B.


Knight and Bodsworth, (1998) supports this finding in their study conducted in Australia. On the contrary Grobler, Kleynhans, Lubbe, Smit, Retief, Victor and Bester, (2003), in their study in South Africa found that physiotherapists had adequate knowledge of the transmission and preventative methods of hepatitis B, A and C. It can be recommended that the prevention of hepatitis in the workplace should be approached with the same seriousness as HIV transmission.

As medical professionals, physiotherapists should know the pathophysiology of HIV/AIDS and other common diseases just as they do with the other non-communicable conditions treated by them. This is because physiotherapists have an

added role as educators to their patients and caregivers and as health promoters in general.

## **5.2.2. Medical Aspects of HIV/AIDS**

### **5.2.2.1. Stages and associated conditions**

Most informants were aware of the stages of progression following infection with HIV, but they did not know the correct terminologies used. Although they were aware that HIV does have stages, very few mentioned the actual progression of the disease. All the informants were aware of AIDS-related neurological complications. Hemiplegia and paraplegia were the most frequently encountered complication. This could be due to the fact that these conditions are usually referred to the physiotherapy departments irrespective of the causes.  Physiotherapists expect an increase in the number of AIDS-related stroke being referred to them. According to O'Dell and Sasson, (1992) it has been found that people with HIV/AIDS demonstrate a wide range of central nervous system impairments and may be at a significantly increased risk of cerebrovascular disease, which can be the first manifestation. This condition is due to the Lentiviridae, a specific class of human retroviruses that tends to affect the nervous system (O'Dell & Dillon, 1992).

### **5.2.2.2. Medication**

All the informants knew that ARV drugs were available but did not know the combinations in which the drugs are administered. Some had friends on ARV treatment and that is how they have come to hear about medication. Others knew that pregnant women are given antiretroviral drugs, but do not know what they are. One

of the reasons given for not knowing about the drugs was that some informants had not come across anybody using the drugs since they were not freely available. It can be argued that physiotherapists should know the side effects of the drugs since they may be treating patients who present with conditions that could be due to the debilitating side effects. According to Bowers (1997) some of the ARV drugs have been contributing factors to disabilities. Their lack of knowledge about these drugs, led to the conclusion that they would not know the complications.

### **5.2.3. Risks and Prevention in the Work Place**

Although the term UP was unfamiliar to the respondents, in practice they were actually applying it in one way or another. Unfamiliarity with the term could be due to the fact that the term is not used in their daily verbal and written communication, and possibly due to a lack of institutional and departmental Continuous Professional Development (CPD), which would assist them to be keeping abreast with the latest developments on this topic. Nevertheless, they knew how health professionals should protect themselves against HIV infection in the workplace. From the responses it can be deduced that HIV/AIDS, including UPs, may not have been dealt with in the physiotherapy curriculum, with specific reference to HIV/AIDS. However generic precautions applied in the prevention of cross infection in the ward were learnt in the compulsory six weeks hospital clinical practice. This was during the basic nursing theory and practise blocks that student physiotherapists in Zambia had to complete in their training.

Some of the informants reported that employers were not sensitive to their fears as they often treat patients with TB. Due to inadequate, or and sometimes non-existent of protective clothing and equipment, they have no choice but to treat patients without these facilities. These precautions are also not followed in most of the institutions due to limited resources. This is in agreement with the findings in a study by Awusabo-Asare & Marfo (1997). On the other hand there are a few departments that manage to supply enough protective clothing periodically.

The informants felt that UP should be instituted as a matter of policy regardless of the patients' HIV status in order to avoid discrimination and the perceived stigmatization against HIV-positive patients. They also felt that it should be mandatory for physiotherapists to wear protective clothing. According to the CDC (1989) this practice has already been documented on the need for health workers to adhere to the universal precautions. Therefore, a health care worker probably uses protective clothing only when they deem it necessary. This shows a lack of emphasis by the employers on protection in the work place. Research has shown that precautions are not universally applied (Dike, 1993).

A study by Symer, Bryce and Joseph (1990) found that even in work places that are more prone to be in contact with blood, like in emergency services, only 37% of emergency professionals used gloves when treating bleeding patients. According to the CDC (1987) universal precautions should be used for all communicable diseases, and Atchison, Beard & Lester (1990:216) advocates that, "UP... must be practiced by all health workers". They should also be practiced where it is anticipated that the hands will be in contact with the patients body fluids. The least that a hospital can



provide for their health workers, in terms of protection from contracting infectious diseases, should be gloves for workers working in ‘bloody’ areas and goggles for those doing suctioning of secretions from the oropharyngeal areas and lungs.

#### **5.2.4. Physiotherapy in HIV/AIDS**

##### **5.2.4.1. Perceived benefits for patients**

There was a general agreement by the informants that improvement was noticed in some HIV/AIDS-related neurological and non-neurological complications following physiotherapy sessions. Other studies have found physiotherapy treatment of patients with HIV and AIDS complications beneficial and making a valuable contribution to the holistic management of the person with HIV/AIDS (Voors, 2000; McClure, 1993; & Sheen & Green; 1997). The effects of physiotherapy have been recognized as positive, restorative, and palliative in some HIV/AIDS related cancer as well as in the adverse effects of the infection (McReynolds & Garske 2001; Nixon & Cott, 2000; McClure, 1993).

##### **5.2.4.2. Effects on physiotherapists**

These were identified as physical and emotional. They experienced physical tiredness due to the physically demanding nature of the conditions referred for physiotherapy. In order to give effective treatment, more attention and longer time is spent with individual patients. They also expressed views that they would be emotionally affected. This could be due to the prognosis of the condition, which is terminal. Some informants expressed feelings of empathy similar to the findings of a study by Ezedinachi et al (2002) and they expressed that this could be mentally stressful.

In conclusion, according to my assessment and from the therapists' self assessment, their knowledge was insufficient in the pathophysiology of HIV/AIDS, ARVs and its complications. Souheaver et al, (1996) & Mungherera et al, (1997) also found that rehabilitation and health workers had incomplete and inaccurate knowledge concerning AIDS. This is supported by Sheen and Green (1997) who found widespread ignorance among therapists about HIV/AIDS.

#### **5.2.5. Source of Information**

In this study it was evident that informants acquired information mainly from mass media, magazines, neighbors and spouses. This information is usually very basic and designed to educate the general public. It lacks detailed information essential for health professionals. Studies by Horsman and Sheeran, (1995); Kitaura et al (1997) & Mitchell (1999) also found the mass media as an important source of information. According to Puckree, Kasiram, Moodley, Singh and Lin (2002), lack of knowledge is a source of concern at the professional level. Similarly McClure (1993) emphasized the importance of physiotherapist having knowledge of the virus to ensure confidence and safety in the handling of patients infected with HIV.

Informants reported having no libraries in most of the institutions. None of the respondents mentioned that they acquired knowledge from workshops, nor from departmental or institutional CPD. Out of the entire participants only one had attended a workshop in counseling. Attendance of CPD courses is essential in developing knowledge, skills and the improvement of performance (CSP, 2002:19)

since medical science is dynamic. Knowledge of risks helps one to make informed decisions. Without CPD and libraries with latest learning materials, it would be impossible for physiotherapist to upgrade their knowledge on the latest developments in HIV/AIDS. Consistent with this suggestion, a study by Van Wissen and Woodward (1994) with medical workers suggested that more in-service education would be useful in gaining information concerning HIV/AIDS issues.

Regarding self-assessment of knowledge on HIV/AIDS, most of the informants rated their knowledge as inadequate. They attributed this inadequacy to their training at Diploma level, which did not include HIV/AIDS. As medical professionals, physiotherapists should know the pathophysiology of HIV/AIDS just as they do with the other conditions treated by them. This is because physiotherapists have an added role as educators to their patients and care givers. A study by Amosun et al, (1997) also recommended that AIDS education be included in the physiotherapy curriculum in order to promote accurate information.


### **5.3. PHYSIOTHERAPISTS' ATTITUDES**

#### **5.3.1. Towards Persons with HIV/AIDS**

Most of the informants in this study appeared to have empathy and a positive attitude towards HIV/AIDS patients. On the other hand, some informants appeared to be judgmental. Most of them blamed the individuals who contracted the disease through unprotected sex as being irresponsible. These feelings expressed could have been because information on the prevention of the HIV infection is widely publicized in the newspapers, posters and clinics. Therefore it would be expected that individuals

would put them into practice to avoid the infection. Similar attitudes were found in Nigeria by Adebajo et al, (2003) where some respondents felt that the patients deserved the punishments for their sexual misbehavior.

Yet some informants indicated that HIV/AIDS is like any other chronic disease and people suffering from it should enjoy the same attention and care as patients with any other disease. The infection does not change the fact that PLWA are people too, and should be treated as such. Similar responses were found in study by Gilchrist, Sullivan and Heard (1997) on the attitudes of physiotherapy students towards AIDS in Australia.

In contrast a study by Hentgen et al (2002) found that some HCWs indicated that the HIV/AIDS patients should be isolated.  The informants' positive attitude towards their patients in this study could be due to the fact they were already treating HIV/AIDS patients for some time and it may have influenced them over this time. Valimaki et al, (1998) found that attitudes are shaped by experiences. The more positive attitudes have been associated with the informants' direct experiences of knowing or caring for people with HIV/AIDS. This finding was supported by study from All and Fried (1996). Most of the informants felt that a physiotherapist needed to understand their job description, which is working with patients despite the condition. Therefore, if someone refused to treat patients because of their HIV positive status, it would be helpful to counsel and educate them on the modes of transmission and prevention of the infection in the work place. Alternatively they could resign from the profession, since this is a caring profession and needs the therapist to be compassionate. HIV/AIDS will be in existence for a very long time if

no cure is found. Resigning from the profession would not be an solution for these therapists. There is need to understand why the therapist feel the way they do. They may refuse to treat because of the limited knowledge and the solution here would be to improve their knowledge.

### **5.3.2. Fear of Transmission**

The informants, like any other medical professional, felt they were at risk of contracting HIV and some of its complications like pulmonary tuberculosis in the work place because of the nature of the physiotherapy treatment methods. Treatment of conditions like stroke brings the therapist into very close contact with the patient, especially when the patients are totally dependent on the therapist. At present patients do not readily reveal their status to the therapist and the referral form does not state the patient's status. This is in keeping with the patient's right to confidentiality of information. Hence this state of non-disclosure may instill the fear of infection into the physiotherapists.

It is a misconception that a therapist would contract HIV from the patient because of being close to them during treatment, as transmission will only occur by the modes mentioned earlier. It would be helpful for therapists to have an understanding of their job description and professional responsibilities to help them stay focused on their job. Fear and risk go hand in hand, since all the patients are seen to be potentially HIV positive. Lack of information of their status can instill a fear of contracting the infection from the unknown source. This is supported in a study by Pongruengphant (1995) who found that the inadequacy of professional education in the prevention of

HIV caused anxiety in nurses in Thailand. Contagious diseases induce fear in people and it is worse if the causes and modes of transmission are not known (Corr, Nabe & Corr, 1997). Therefore it may be concluded that the increase in knowledge on the causes and transmission of the infection, should reduce the fear of contraction of the infection and reduce the anxiety when treating HIV/AIDS patients. The concepts of vulnerability and fear of contagion are also recognized by Hodgson (1997).

### **5.3.3. Right to Treatment /Care**

It was expressed by the informants that these patients deserved to be treated equally like any other patients. This is in agreement with a study by Atchison et al, (1990) who advocated that PLWA need more care because of their special needs. Similarly, McCann (1997) came to the same conclusion in his study on nurses' willingness to treat patients. He argues that that treatment and caring was a duty of nurses. It is not conditional to the diagnosis of the patient.

In contrast, a study done in America on nurses' attitudes towards HIV/AIDS patients, Kemppainen et al, (1996) found that the nurses were reluctant to treat these patients. Informants in this study acknowledged that despite the condition of the patient they have an ethical obligation to treat, which is supported in the results of a study in China by (Cheng, 1997). Similar results were found in a study by Gyllesten Gard, Salford & Ekdahl (2000).

The need to treat PLWA by physiotherapists is not debatable, because every human being has a right to health irrespective of their diagnosis. To fulfill these tasks

effectively and with confidence physiotherapists should adhere to universal precautions when working in an environment that may expose them to contracting HIV. However, some of the informants felt that if a therapist were at risk of contracting HIV when treating a patient, it would be right for them to refuse to treat. This would not be practical in a working situation because PLWA come to medical institutions with a need to be treated. Denying them treatment would stigmatize them more. Therefore it is important for workers to understand their job description, and for the institutions to provide protective clothing. This finding supports the results from studies where nurses felt that they had a right to refuse to treat HIV positive patients (Mitchell, 1999; Sanson-Fischer, Bridges-Webb, Coates, Crotty, Damey & Dickson, 1990). This is contrary to Gallop, Lancee, Taerk, Coates and Fanning (1992), whose study revealed that nurses would not refuse to care for an HIV patient but that the patient's status should be disclosed.



#### **5.4. RECOMMEDATIONS BY PHYSIOTHERAPISTS**

The informants made some suggestions for improving their physiotherapy skills. They identified counseling skills as essential for dealing with HIV infected patients and their carers. According to the informants this is currently not included in the physiotherapy curriculum. Physiotherapists are already giving basic counseling to their patients because of the nature of the profession where they spend a lot of time in the 'listening' role as patients often have a need to 'offload' their feelings (Lang, 1993). This counseling is done without prior training. The recommendation is supported by Chippindale and French (2001). In agreement Szybek, Gard & Linden

(2000) have recognized that in physiotherapy treatment the quality of the counseling relationship is important for the success of the therapeutic process.

The other suggestion was the need for the patients' status to be disclosed. This is constitutionally wrong as the patient has the right to confidentiality, but the informants still felt that disclosure of the status would help in setting realistic goals for treatment.

An interesting recommendation by a physiotherapist working in pediatrics was the need to educate mothers of children with HIV/AIDS on the importance of nutrition. This point seemed valid because it is important to keep the child healthy in order to prevent more infections and for the child to have enough energy to tolerate treatment. A multidisciplinary approach to the treatment of PLWA would be a more appropriate option, so that experts could handle the nutritional issues mentioned by the informants namely dieticians, nutritionists and social workers.

## **5.5. SUMMARY**

This chapter discussed the findings of the study in relation to physiotherapists' attitudes, knowledge of transmission, medical aspects, risks and prevention of HIV/AIDS. Although the informants had insufficient knowledge on the transmission and the stages of HIV/AIDS, they were aware of the risks and prevention of the infection in the workplace. They were also knowledgeable of the benefits of physiotherapy for PLWA. Their limited knowledge could be attributed to the limited



sources of information as almost all the institutions had neither departmental nor institutional libraries.

The attitude of the informants was positive, which seemed surprising, because less knowledge would be associated with negative attitudes toward PLWA. Therefore it can be concluded that ones level of knowledge on HIV/AIDS has little bearing on their attitudes towards PLWA. The informants emphasized that PLWA need to be afforded the same treatment as other patients.

The importance of the need for physiotherapists to be knowledgeable in all aspects of physiotherapy seemed apparent. The next chapter presents the summary, conclusion and recommendations.



## **CHAPTER 6**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **6.1. INTRODUCTION**

This chapter presents the conclusion to the study. Recommendations based on the results are discussed.

#### **6.2 SUMMARY**

This study explored the knowledge and attitudes of the physiotherapists towards patients with HIV/AIDS, particularly with regards to their risks and fears of its transmission in the work place. It also identified whether knowledge influenced the attitudes of physiotherapists towards HIV/AIDS patients referred to them for treatment.



The results of the study indicate that the physiotherapists do not have sufficient knowledge about specific aspects of HIV/AIDS. They also expressed this after self-assessment of their knowledge. They had limited knowledge on the pathology of the disease, anti-retroviral drugs and its side effects. Although the medical treatment of HIV/AIDS is not the physiotherapists' responsibility, it is important for them to understand and be knowledgeable about ARVs. This is due to complications HIV patients may present with, when they are referred for physiotherapy treatment. However, in spite of their limited knowledge, all the physiotherapists had a positive attitude towards HIV/AIDS patients and showed a willingness to treat, but they expressed their fears of contracting the infection in the work place. A study by Sheen and Green (1993) also found positive attitudes among chartered physiotherapists who have already been attending to HIV patients.

The results in the present study were somewhat surprising because in a situation where there is lack of knowledge one would have expected a negative attitude. A negative attitude could be due to a fear of treating a person with a condition that is not well understood. One could speculate that the positive attitude of physiotherapists could be due to the fact that all the informants have been working with HIV/AIDS patients. The knowledge that the therapists in this study acquired from the mass media was probably sufficient to influence their attitudes, although not enough information was exhibited as expected from a trained health professional.

From these findings it could be inferred that the amount of knowledge these informants possessed, though insufficient in certain aspects, did not have a negative influence on their attitudes. Meaning the participants limited knowledge of HIV/AIDS did not have more ‘wrong’ attitudes. Therefore it can be said that knowledge does not influence an individual’s attitude.

Attitudes can be formed or are inherent in personal characteristics. This is evident in the caring characteristics found in most caring professions. An individual may have adequate knowledge of HIV but still have a negative attitude towards patients.

It could be argued, from the physiotherapists’ point of view, that the HIV status of the patient should be disclosed since physiotherapists are part of the team looking after these patients. This would put the therapist at ease and allow him/her to take special precautions. Fear of the ‘unknown’ seems to makes them apprehensive to treat these patients. However, from an ethical and patients’ rights perspective the right to

confidentiality of information should be respected. The study also showed that CPD by means of educational workshops could improve knowledge. Unfortunately there is a lack of in-service courses on HIV/AIDS for physiotherapists, and a lack of workshops for addressing their needs regarding HIV/AIDS.

Therefore, the insufficient knowledge of the physiotherapists on HIV/AIDS in most of the areas has implications for the physiotherapists' training programme. The lack of knowledge could be due to the omission of HIV/AIDS in the curriculum for the physiotherapy training. The informants in the study had knowledge on the modes of the transmission in the workplace and knew the application of UP. However, their fear of contracting the infection was still expressed.



### **6.3 Conclusion**

In conclusion, the study has met its objectives. It succeeded in determining the knowledge regarding HIV/AIDS transmission in the workplace, the attitudes of physiotherapists towards patients with HIV/AIDS and whether the physiotherapists' knowledge on HIV/AIDS influences their attitudes towards these patients.

### **6.4 Recommendations**

It is important for physiotherapists to be knowledgeable about the disease and to have a positive attitude in order to treat these patients effectively. Physiotherapy is an essential part of treatment in many patients with HIV/AIDS in the early and late stages of the disease. Therefore, based on the findings of the study, I would like to make the following recommendations:

- All aspects related to HIV/AIDS should be included in the physiotherapy curriculum. These are pathophysiology, prevention, medical treatment, the role of physiotherapy, the rights of the patient, caregiver support, precautions generally and in the health professionals' workplace. A holistic approach should always be the basis of all knowledge acquired.
- Basic counseling skills within the physiotherapist's scope of practice should be included in the physiotherapy curriculum. Often times physiotherapists find themselves in situations requiring the use of basic counseling skills in the execution of their duties. This is because physiotherapists find themselves in unique situations where they spend a lot of time with their patients and their families.
- There is a need for departmental and institutional policy on the implementation of CPDs to upgrade the knowledge of all health personnel on HIV. This should be facilitated by Ministry of Health, hospital administrators in collaboration with the NGOs who are running HIV/AIDS programmes in the country and the *Zambian Society of Physiotherapy*.
- The setting up of institutional and departmental libraries in the medical institutions, with the latest journals or literature on recent developments on HIV/AIDS, could lead into being continuously updated with modern trends in the development of medicine and treatment.



- Further research of this study with an inclusion of focus group discussions, covering all the medical institutions that offer physiotherapy services in Lusaka, is suggested. A similar study could be carried out on a larger scale nationally using both qualitative and quantitative research methods.
- There is need to identify the experiences of PLWA regarding the attitudes of physiotherapists and other health workers towards them.

## **6.5 LIMITATION OF THE STUDY**

### **6.5.1 GENERALISING OF THE STUDY**

Although the sample size of twelve physiotherapists was sufficient for a qualitative research design this cannot be generalized to the whole population under study, due to the scope and nature of qualitative research method. The strengths and limitations of qualitative research were discussed in detail.

### **6.5.2 INTERVIEW GUIDE**

Because of the type of questions asked in the knowledge section of the interview guide sufficient qualitative responses such as feelings and opinions could not be elicited.

It would have been more appropriate if data in this section were collected using a quantitative research design, but a larger sample would have been required.

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**APPENDIX A: APPROVAL FROM HIGHER DEGREES COMMITTEE**



**APPENDIX B: LETTER OF PERMISSION**

UWC,  
Physiotherapy department,  
P/B X 17,  
Bellville 7535,  
RSA.  
28 November, 2003.

.....  
.....  
.....

Dear Sir/Madam,

**RE: REQUEST FOR PERMISSION TO DO A RESEARCH**

I am a postgraduate student of physiotherapy at the University of the Western Cape, South Africa. I plan to carry out research on ‘The knowledge and attitudes of Physiotherapists towards patients HIV/AIDS in the Lusaka Province’. This is in fulfillment of the requirement for a Master of Science degree in physiotherapy. I write to ask if you would allow your physiotherapists at this institution to participate in the study and give their views on the subject.

The details of the study are explained in the abstract attached to the letter. I am hoping to commence with data collection between 15<sup>th</sup> December and 15<sup>th</sup> January 2004. The University’s Senate and Faculty’s Higher Degrees Committees have approved the study.

I look forward to your favorable consideration.

Yours sincerely,

FLORENCE CHIWALA SALATI (Masters student).  
Supervisor: Mrs. M Marais Tel: 959 2542

**APPENDIX C: LETTER TO PARTICIPANTS**

**PHYSIOTHERAPIST KNOWLEDGE AND ATTITUDES TOWARDS  
HIV/AIDS PATIENTS IN LUSAKA-INFORMED CONSENT FORM**

UWC,  
Physiotherapy department,  
P/B X 17,  
Bellville 7535,  
RSA.  
9<sup>th</sup> December, 2003.

.....  
.....  
.....

Dear Sir/Madam,

Re: Request for your participation in a research.



I am a postgraduate student of physiotherapy at the University of the West Cape. I plan to carry out a research on the above subject in fulfilment of the requirements for a Masters of Science degree in physiotherapy.

The aim of the study is to establish the knowledge about HIV/AIDS, and the attitudes of physiotherapists towards these patients. It is hoped that the information gained in this study will could assist in the formulation of training programmes in HIV/AIDS for physiotherapy staff at various institutions and that recommendations could also be made to include HIV/AIDS in the physiotherapy curriculum.

I write to ask if you would be willing to participate in this study and give your views on the subject. This will involve tape-recording interviews, the recordings of which will be transcribed and sent back to you for corrections where necessary. Anonymity will be ensured in the reporting of any information you provide to the researcher. Participation is voluntary. Should you feel uncomfortable at any time during the interview you are free to withdraw.

I look forward to working with you and I thank you for your cooperation.

Yours sincerely,  
Florence Chiwala Salati, (Master student).

**APPENDIX D: CONSENT FORM**

I.....freely and voluntarily consent to participate in a research project under the supervision of Ms. F. Salati.

I understand the aims of the study to establish the knowledge about HIV/AIDS and its transmission, and the attitudes of physiotherapist towards HIV/AIDS patients in Lusaka. I also understand that it is hoped the information gained in the study could assist in the formulation of training programmes in HIV/AIDS for the physiotherapy staff in institutions and to recommend that the physiotherapy school address HIV/AIDS in their curriculum.

I understand that I might withdraw my consent and discontinue participation in this research at any time without prejudice to me. I have been given the right to ask, and questions have been answered to my satisfaction. I have read the contents of this form and have received a copy.

..... WITNESS		..... DATE
..... PARTICIPANT		..... DATE

I HAVE EXPLAINED THE RESEARCH PROCEDURE TO WHICH THE SUBJECT HAS CONSENTED TO PARTICIPATE

## APPENDIX E: INTERVIEW GUIDE

### KNOWLEDGE AND ATTITUDES OF PHYSIOTHERAPISTS

#### 1. PERSONAL INFORMATION/PROFILE

Instruction

Please fill in this form with your information

a. Gender male( ) female ( )

Age: Which group do you belong to

22 – 27 ( )

28 – 33 ( )

34 – 39 ( )

40 and above ( )

Highest qualification attained

Diploma in physiotherapy ( )

Degree in physiotherapy ( )

Masters in physiotherapy ( )



The total years of experience in physiotherapy

1 - 5 ( )

6 - 10 ( )

11 and above ( )

Primary area of practice

Adult physical disabilities ( )

Paediatric physical disabilities ( )

Adult psychiatry ( )

Pediatric psychiatry ( )

Adult psychiatry ( )

Other ( )

## 2. KNOWLEDGE

- a. What would you say are the modes of transmission of HIV/AIDS?  
Probe
- b. What would you say were the stages of HIV/AIDS?
- c. In your opinion how should health professionals protect themselves from getting the virus?
- d. In your opinion how should physiotherapists protect themselves from getting infected with HIV/AIDS in the work place?
- e. How would you protect yourself from contracting hepatitis?
- b. What would you say are some of the neurological complications of HIV/AIDS?
- g. Of the ones mentioned which ones could benefit from physiotherapy treatment and how?
- h. What are some of the non-neurological complications of HIV/AIDS?
- i. How would physiotherapy treatment influence these?
- j. What are the most common combinations of antiretroviral drugs used lately/
- k. What are some of the side effects of these drugs that physiotherapy would influence?
- l. What do you know about universal protection?  
Are you able to follow them?
- m. In your daily treatment of patients do you follow the rules of the precautions  
If not why/if yes how
- n. What precautions do you usually take to protect you against HIV, infections? Explain
- o. Would you like the hospital to have a policy on UP for all patients or just specific precautions for HIV positive patients?

**3. ATTITUDE**

- a. How do you feel about people who are HIV positive?
- b. What is your opinion about people who got infected through having sex?
- c. How do you feel about treating HIV/AIDS patients?
- d. Are you concerned about treating HIV patients?  
Probe, if yes, why? What are the concerns?  
How do you suggest having your concerns addressed?
- e. Do you think HIV patients are entitled to the same care as any other patients?  
Why do you say so?
- f. What would be your reaction if you have to attend to HIV/AIDS patients on a regular basis?
- g. What should be done to physiotherapists that refuse to treat patients who re HIV/AIDS?
- h. How would say that you could contract HIV/AIDS from patients who is positive and how?
- i. Are they any changes you would like to seen to improve the care of HIV positive patients in this dept?



**4. SOURCE OF INFORMATION**

- a. What and how is your source of information concerning the latest developments on HIV/AIDS and its transmission?
- b. Tell me about your institutional library in the context of HIV/AIDS literature?
- c. How adequate is your knowledge on HIV/AIDS
- d. What areas would you like to receive more knowledge in?
- e. Is there anything that you would like to discuss concerning the above topics?