KNOWLEDGE AND ATTITUDES OF PROFESSIONAL NURSES TOWARDS HIV AND AIDS PATIENTS AT THE LIBODE DISTRICT HEALTH SERVICES IN THE EASTERN CAPE PROVINCE

GRACE NONTUTUZELO GEDU

MINI-DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE

DEGREE MASTER OF NURSING SCIENCE (MAGISTER CURATIONIS)

DEPARTMENT OF NURSING SCIENCE

FACULTY OF SCIENCE AND AGRICULTURE

UNIVERSITY OF FORT HARE

SUPERVISOR: Dr. N. Tshotsho

CO-SUPERVISOR: Mrs. N.I.N. Magadla

8 DECEMBER 2011

DECLARATION

I, Grace Nontutuzelo Gedu declare that, this mini-dissertation is the product of my own work and that it has not been submitted before, for any degree or examination in any other University. All the sources I have used or quoted have been indicated and acknowledged as complete sources.

Researcher's Name: Grace Nontutuzelo Gedu

Signature:.....

Date... 23-04-2012

ACKNOWLEDGEMENTS

My sincere gratitude is expressed to my supervisors, Dr. N.Tshotsho and Mrs NIN Magadla for their patience, constructive guidance and support. A word of thanks is expressed to St. Barnabas Hospital Managers and the research committee for granting me permission to conduct the research study. A sincere word of gratitude to the research participants for their co-operation in completing the questionnaires.

A word of gratitude is expressed to The Atlantic Philanthropies through the University Based Nursing Education (UNEDSA) project, for the grant towards the completion of my research. A word of gratitude is expressed to my husband, Tembile Gedu, my children, Pumeza, Asipe, Lakheni and Sekela for their motivation and support during the study.

ABSTRACT

This study was conducted at the Libode District Health Services amongst professional nurses who render services to HIV and AIDS patients. Generally, caring for HIV positive patients, nurses need to be knowledgeable about the transmission of the HIV virus, in order to render quality care to the patients. They also need to be sensitive and to demonstrate positive attitudes towards the patients.

It was unknown whether the professional nurses at the Libode District Health Services are knowledgeable or not regarding HIV and AIDS. Their attitudes towards the HIV positive patients, were also unknown. Not knowing the knowledge and attitude of professional nurses regarding HIV and AIDS has the potential to compromise the quality of nursing care rendered to the patients. The purpose of the study was to explore and describe the level of knowledge of professional nurses regarding HIV and AIDS well as their attitudes towards the HIV-positive patients so as to make recommendations for quality patient care based on the results.

A quantitative explorative descriptive research design was used to examine the level of knowledge about HIV and AIDS as well as the attitudes of professional nurses to HIV and AIDS patients. The target populations were the 218 professional nurses working at the Libode District Health services who had nursed HIV positive patients. A simple random sampling method was used to select a sample of 120 participants. A structured self-administered questionnaire was used to obtain data. The questionnaire consisted of a section on the demographic profile of the participants, and two other sections for responses on knowledge and attitudes.

Data were analyzed using Statistical Package for the Social Sciences (SPSS) version 17.0 software for consistency of the twenty (20) items in the questionnaire.

Findings showed that nurses of Libode District Health Services had an approximately fair amount of knowledge. The majority (79%) of participants scored above the cut-off point of 24. Twenty one percent (21%) scored below 24. On attitude, the majority (76%) had scored below the cut-off point of 36.

Recommendations were that professional nurses of Libode District Health Services, need to be exposed to ongoing training on HIV and AIDS to increase their knowledge about HIV and AIDS and to ensure that they demonstrate positive attitudes towards HIV and AIDS patients.

KEY WORDS:

Knowledge

Acquired Immune-Deficiency Syndrome (AIDS)

Attitude

Contents

CHAPTER 4: DATA ANLYSIS, PRESENTATION AND DISCUSSION OF RESULTS

CHAPTER 5: DISCUSSIONS, LIMITATIONS AND RECOMMENDATIONS

6. LIST OF REFERENCES

7. APPENDICES

8. TABLES

9. FIGURES

CHAPTER 1: INTRODUCTION AND BACKGROUND

1.1 Introduction:

This study seeks to describe, the level of knowledge of professional nurses about the Human Immune-Deficiency Virus and Acquired Human Immune Deficiency Syndrome (HIV and AIDS), as well as the attitudes of these nurses towards patients who are HIV positive as a component of quality nursing care at the Libode District Health Services in the Eastern Cape Province.

1.2 Background of the study

The fact that HIV is spread through body fluids is an important factor for nurses who have to handle patients' body fluids during their day to day interactions. Nursing is a profession based on a close-caring, therapeutic relationship and interaction with patients irrespective of the nature of their affliction (Christopher, Daley, Armstrong and Gupter, 2004:802).

Human Immunodeficiency Virus (HIV) and Acquired Immune-Deficiency Syndrome (AIDS) have brought about a global epidemic far more extensive than was predicted even a decade ago. Still growing rapidly, the epidemic is reversing development gains, obliterating millions of lives and undermining social and economic security. It has become a major cause of disease in South Africa (van Rensberg, 2002:1).

South Africa is regarded as having one of the highest HIV prevalence rates in the world, with an estimated 6 million South Africans living with HIV and AIDS. There are almost 1

million orphans under the age of 15 years, whose parents have died of AIDS. It was predicted that more than a million South Africans would die of AIDS by 2008 and the average life expectancy was forty five years (Bedimo, 2000:5). If more drastic measures are not taken to prevent the HIV/AIDS tide in South Africa , there will be a three-fold in deaths among children aged between one and five years by the end of this decade. AIDS –related deaths will count for twice as many deaths as all other causes combined and population growth will be halted (van Rensburg, Bradshaw, Nannan, Grunewald, Joubert, Laubscher, Nojilana , Norman, Pieterse and Schneider,2005: 496-503).`

The infection is difficult to detect at a glance in the infected patients who are living well with the disease. Such a situation also contributes to the increased vulnerability of nurses (van Rensberg, 2002:325). The disease is regarded as fatal due to the fact that it is not curable though treatable. Nurses, who do not adhere to proper infection control measures, are at risk of acquiring the infection. Such factors contribute to the fear in nurses with the inherent negative impact on quality patient care (Janice, 2009:123-127). Quality nursing care to HIV and AIDS patients needs to be knowledge-based, mainly because lack of knowledge may lead to nurses showing negative attitudes towards HIV and AIDS patients.

In a study by Fussilier (2001:212) on attitudes and willingness to care for HIV positive patients, it was found that a lack of knowledge on HIV transmission and fear of contracting HIV in the workplace led to HIV positive patients being neglected by health workers. Neglect of patients impact on patients right to quality care. There seem to be

no study ever conducted to determine these constructs. This knowledge gap has a potential to impact negatively on the quality of nursing care rendered to the patients.

This study was conducted amongst professional nurses at the Libode District Health Services. The Libode District Health Services serve the communities of Libode, Ngqeleni and Port St. Johns towns in the Eastern Cape Province. The town of Port St John's is a tourist destination and situated on a national road used mainly by truckers and tourists. The main concern is that Port St John's has been identified as a high HIV transmission area by the HIV and AIDS co-coordinators in the area. The majority of HIV infected patients admitted at the Libode District Health Services are from Port St. Johns.

1.3 Problem statement

The knowledge gap that is addressed through this study is the absence of scientific information on the level of knowledge about HIV and AIDS, the attitudes towards the HIV and AIDS patients.

The problem identified from the District Health Information System (DHIS) in 2008, was that out of every eighty (80) admissions in the hospital, thirty (30) were HIV infected. The 2009 Annual statistics of HIV/AIDS at the Libode District Health Services show that the total number of HIV positive patients was 5 528, admissions were 320, HIV positive pregnant women who attended Ante Natal Care clinic were 984, the number of HIV positive patients who attended the wellness clinic was 2,354 and those on ARVs were 1,870. (See Table 1.1).

Table 1.1: 2009 Annual statistics of HIV and AIDS in Libode District Health Services:

Admissions	No. of HIV+ pregnant women	No. of HIV positive patients in Wellness Clinic Register	No. on ARVS
320 = 1.29%	984 =17.8%	2,354=45.5%	1,870=33.9%

At the Libode District Health Services the large numbers of HIV and AIDS patients, makes it critical that nurses should be highly knowledgeable on issues related to HIV and AIDS, how it is spread, , and the care and treatment of HIV infection.

1.4 Purpose of the study

The purpose of this study is to describe the knowledge of professional nurses about HIV and AIDS and to describe their attitudes towards HIV and AIDS patients, at the Libode District Health Services in the Eastern Cape Province.

1.5 Research question

A research question is the methodological point of departure of scholarly research in both the Natural Sciences and Humanities. It is the question that states what the researcher will attempt to answer (Joubert and Erlich, 2007:123).

In this study the researcher attempted to answer the following research questions:

- How knowledgeable are the professional nurses about HIV and AIDS at the Libode District Health Services in the Eastern Cape Province?

- What are the attitudes of professional nurses towards HIV positive patients at Libode District Health services in the Eastern Cape Province?

1.6 Objectives

The objectives of this study were to:

- Explore and describe the level of knowledge of professional nurses about HIV and AIDS at the Libode District Health Services in the Eastern Cape Province.
- Explore and describe the attitudes of professional nurses towards HIV and AIDS patients at the Libode District Health Services in the Eastern Cape Province.
- Make recommendations for improving nursing care rendered to the HIV positive patients at the Libode District Health Services in the Eastern Cape.

1.7 Significance of the study

The results will be used as evidence to guide the interventions for better quality nursing care as the study sought to ensure that nurses have an acceptable level of knowledge about HIV and AIDS and have a positive attitude towards the patients. The nurses will then be able to apply the scientific knowledge about HIV and AIDS, the core values of the nursing profession in relation to caring, compassion, respect and fulfilling the physical, emotional, spiritual and social needs of the patients. The findings of this study may be used in other related studies and nursing practice.

1.8 Definition of concepts

In this study, the following concepts were defined as follows:

Knowledge: Is an understanding of or information about a subject which has been obtained by experience or study, and which is either in a person's mind or possessed by people generally (Cambridge University: 2003:693). Knowledge in this study refers to information or an understanding that is possessed by professional nurses at the Libode District Health Services about the phenomenon of HIV and AIDS.

Acquired Immune-Deficiency Syndrome (AIDS): Is a disease that is caused by HIV invasion of the body that makes a person prone to opportunistic infections. Currently it is treatable but not curable (Hubbly, 2002:1).

Attitude: It is an emotional, cognitive and behavioral response that expresses an individual's positive or negative disposition towards another person (Cambridge University, 2003:70). In this study, the disposition is related to caring for HIV positive patients.

Human Immune-Deficiency Virus (HIV): It is a highly infectious virus which has an affinity for body fluids and lowers the immune system of the affected person thus leading to a currently, incurable though treatable disease, known as immune deficiency syndrome. The virus is spread mainly through sexual intercourse, sharing contaminated injection needles and coming into contact with body fluids from an infected person(Hubbly: 2002:16).

A professional nurse is an individual who has completed a four year diploma or degree programme at university or nursing college, who is educated and competent to practice comprehensive nursing and midwifery and who is registered as a nurse in terms of section 16 of the Nursing Act 50 of 1978 as amended (South African Nursing Association Terminology List, 1994:30).

1.9 Literature Study

Literature that is relevant to this study and how other researchers dealt with the phenomenon under study, that is the level of knowledge about HIV and AIDS and attitudes towards HIV positive patients, was reviewed and discussed in chapter two.

1.10 Research Methodology

Polit & Hungler (2009:617), define research methods as the steps, strategies and procedures for gathering and analyzing data to obtain information for the research investigation. It includes a description of the population, sampling processes, data collection and analysis, the pilot study, and ethical considerations.

1.10.1 Research Design

A quantitative, explorative, and descriptive research design was used in this study (Brink, 2002: 235).

1.10.2 Population

A population is the larger pool from which the sampling elements are drawn and is used by the researcher to generalize the findings (Terre Blanche, Durkheim and Painter, 2006:378). The target population for this study consisted of the 218 professional nurses in the Libode District Health Services as they all had an opportunity to nurse HIV and AIDS patients.

1.10.3 Sample and sampling

According to Brink (2002:133), a sample "is a part or fraction of a whole sub-set of a larger set selected from the defined population by the researcher to participate in a research project" and that it has to be large enough to be representative of the population being studied. In this study the population size was N=218 consisting of all professional nurses working in the District Health Services. The sample size was n=120. A simple random sampling was used to select the sample. According to Polit & Beck (2004) this method gives each element in the population an equal independent chance of being selected.

1.10.4 Data Collection

A structured self administered questionnaire was used (Brink, 2002:34). Closed ended statements were used wherein the respondents were offered a number of defined response answers (Brink:2002:135).Questionnaires were delivered by hand to the participants and were collected after five days.

1.10.5 Data Analysis

The collected questionnaires were assigned identification codes for purposes of data analysis. SPSS 17 version was used to analyze data. Frequencies were calculated to obtain a clear picture of the findings of the research.

1.11 Reliability and Validity

In order to obtain valid and reliable data the researcher ensured that the measuring procedures and the measurement instruments were at acceptable levels of reliability and validity by means of a pilot study.

1.11.1 Reliability

Reliability is concerned with how consistently an instrument measures the phenomenon of interest, or the accuracy of the data in the sense that it reflects the true measures of the phenomenon under investigation (Polit & Hungler, 1993:244). The questionnaire adapted by the researcher was tested by conducting a pilot study to test the feasibility and clarity of the questions to be used. The time it would take to complete a questionnaire was also taken into consideration (de Vos : 2002).

1.11.2 Validity

Validity of an instrument determines the extent to which it actually reflects the abstract construct being examined, (Burns & Grove, 2009). The instrument must measure accurately what it is supposed to measure given the context in which it is applied (Brink, 2002: 167-172).

This means that the measure should provide a good degree of fit between the conceptual and operational definitions of the construct and it should be usable for the particular purposes for which it was designed (Terre Blanche, Durrheim & Painter, 2006). One of the most common and useful classification schemes of validity is content and face validity (de Vos, 2002: 166).

1.11.2.1 Content Validity

The content validity is concerned with the representativeness or sampling adequacy of the content of an instrument (de Vos, 2002: 167). The questionnaire was adapted on the basis of extensive literature reviews; all statements in the questionnaires were adapted from Link, and Charap as published in the Archives of Iranian Medicine, (2009), on the statements on medical personnel's knowledge and attitudes. Content validation is also a judgment process (de Vos., 2002: 167). The instrument was evaluated by the study supervisors who have had extensive experience in supervising post graduate students and who are experts in research methodology.

1.11.2.2 Face Validity

Face validity is a desirable characteristic of a measuring instrument (De Vos,2002 :167). In this study the instrument was designed using an acceptable format for the presentation of the questions. Face validity was assessed as follows in this study:

• Research supervisors with extensive clinical, research and supervising experience, experts of HIV and AIDS at the AIDS Centre in the University of Fort Hare, as well as an experienced statistician, evaluated and approved the data-gathering instrument.

• A pilot study was done to ensure that clear and understandable wording was used in the questionnaire.

• A thorough literature search was conducted to ensure that the data in the questionnaire corresponds with what has been found in the available literature regarding professional nurses' knowledge and attitudes of HIV and AIDS.

1.12 Ethical considerations

Ethics is a system of moral values that is concerned with the degree to which research procedures adhere to professional, legal and social obligations (Polit & Beck, 2006). Ethical guidelines in research always serve as standards and as the basis on which researchers ought to evaluate their own conduct. Klopper (2008:102), emphasizes that protection of human participants from undue distress, looking at availability of informed consent, privacy, confidentiality, anonymity and vulnerable participant's safety is the basis of ethical considerations.

1.12.1 Permission

A research ethics clearance certificate was obtained from the University of Fort Hare, where the researcher is studying. Two other ethical approval request letters were obtained from the Eastern Cape Department of Health Research unit and from the Libode District Health services, the study site.

1.12.2 Informed Consent

An informed written consent was obtained from the participants after the researcher had explained in writing about the title of the study, its purpose and benefits to the participant, whether directly or indirectly..

1.12.3 Privacy

Privacy refers to the protection of information normally not intended for others to observe or analyze (de Vos , 2002:67). The participants were assured of privacy that the information obtained from the research will not be disclosed to anyone without the knowledge of the participants. Also, when completing the questionnaire, they were not required to write their names to ensure that they are protected.

1.12.4 Anonymity

Anonymity means that no one including the researcher knows the identity of the research participants (McIntyre, 2005: 77). Anonymity was guaranteed by allocating a number to each questionnaire and ensuring that no identifying information was recorded on it. When the participants filled in the questionnaire, the researcher explained to the participants that no form of identification would be shown on the questionnaire. Participation in the research was on a voluntary basis.

1.12.5 Confidentiality

Confidentiality refers to the researcher's assurance to participants that information provided would not be made public or available to anyone other than those involved in the research process without the participants' consent. Confidentiality is maintained by

restricting access to raw data to those on the research team who need to use it (Burkhardt & Nathaniel, 2002:239). In this study, the participants were assured that information gathered from them would be kept confidential. Only the researcher, supervisors and the statistician would have access to the information.

1.12.6 Right to self-determination

The right to self-determination was ensured by explaining to the participants that participation in the research was voluntary and that they were free to refuse or terminate participating if they felt uncomfortable with the research. They were informed that if they felt that their rights were violated, they were free to contact an identified research personnel member and were given phone numbers of the researcher's supervisor where they could report should they feel violated.

1.12.7 Risk-benefit Ratio

The participants were made aware of the potential risks and benefits of participating in the study and were also informed about their right not to participate. They were informed that there was no risk involved in participating in the research and that they would be doing so voluntarily.

1.13 Conclusion

Chapter one focused on the background and an overview of the study for an understanding of the broader framework of the research study in relation to the following, namely: overview of the purpose of the study, the study objectives, how

ethical considerations were observed, as well as how the reliability and validity of the data instruments were ensured. The next chapter focused on the literature reviewed about the constructs of this study, that is, demographic constructs, knowledge levels and attitudes.

1.14 Chapter division

The chapters in this study were outlined as follows:

- Chapter 1: Introduction and background of the study.
- Chapter 2: Literature review.
- Chapter 3: Research methodology
- Chapter 4: Data analysis and data presentation.
- Chapter 5: Summary, conclusion and recommendation

CHAPTER 2: LITERATURE REVEIW

2.1 Introduction

Chapter one focused on the background of the study for an understanding of the broader framework of the research study.

In this chapter, the focus was on the literature that was reviewed and was relevant to this study and how other researchers dealt with the phenomenon under study, which is knowledge of professional nurses about HIV and AIDS and their attitudes towards HIV positive patients. The discussion helped with the understanding of what is known about the phenomenon.

2.2 Knowledge

Nurses who lack or have very limited knowledge of HIV and AIDS fear and are unwilling to nurse the HIV positive patients (Bedimo 2002:180). Such behaviors are associated with negative attitudes towards the patients with a negative impact on their comfort levels (Martin and Bedimo 2000:180); (Nakhae, 2002:123) and (Tavoosi, 2000:345).

High level knowledge is a predictor of positive disposition towards persons who are HIV-positive and thus ensures good quality care (Bedimo, 2000:180). Nurses with higher levels of education and of the younger generation, are more knowledgeable about HIV transmission than the older generation (Bedimo, 2000:181). Such a situation is linked to the fact that the disease is a relatively new morbidity, (Ramanzekani 2004:340). The older nurses are less knowledgeable than their younger counterparts (Burlew, 2007:123). Differences in age may also be of relevance to this study as professional

nurses belong to different age groups, which may be a factor to consider in relation to capacity building on HIV and AIDS. In this study an assumption was to be made in relation to knowledge level and level of qualifications.

2.2.1 Nursing Knowledge

Knowledge of nursing is the means by which the whole purpose of caring for patients is achieved as it underpins what nurses actually do (Hall 2005:231).. Nursing knowledge defined professional nurses as opposed to similar professions such as doctors, physiotherapists and all other health related professions.

2.2.2 Development of nursing knowledge

Nursing knowledge is embedded in practice. The culture and the accepted practices and beliefs of nursing in practice play an important role in what nurses describe as knowledge and the way knowledge is disseminated.

Nursing knowledge develops from nursing theories as well as from medical procedures and carrying out doctor's orders as this leads to provision of care to patients. Nursing knowledge also develops from communication and interaction with doctors, other health professionals and patients. Nurses acquire knowledge from linking theory into practical knowledge (Leiyu & Michael: 1998:443).

Nursing knowledge is historically acquired through the following: tradition, authority, experience, borrowing, role modeling, mentorship, Intuition and research.

Tradition: Knowledge can be acquired from tradition, for example, the idea of providing patient care in a clean, well ventilated environment is a nursing tradition developed by Florence Nightingale in 1859.

Authority: An authority is a person with expertise and power, who is able to influence opinion and behavior .This person has ability to make judgments and give decisions by virtue of specialized training or experience (Leiyu &Michael;1998:443) Knowledge acquired from authority is illustrated when one person credits another person as a source of information.

Experience: Experience involves gaining knowledge by personally being involved in an event or situation. According to Benner (2003:123) there are five levels of experience in the development of clinical knowledge and expertise, namely:

Novice, is a person with no experience in work but with preconceived notions and expectations. An advanced beginner is a person who is able to recognize patient's needs with concern. A competent person is one who has 2-3years experience, who can develop goals and plans, is efficient and organized. A proficient person is one who has experience and is efficient. An expert is one who is skillful and efficient; borrowing, use of knowledge from other fields for example, medicine, and sociology helps nurses to advance in their nursing career. Role modeling and mentoring, knowledge is gained here through imitating someone and through her guidance and facilitation thus molding the inexperienced toward professional maturity and lastly intuition means knowledge gained through reasoning and identifying a problem for a research study.

In this study knowledge refers to the expertise and proficiency that professional nurses had acquired from their studies as well as from practicing nursing HIV and AIDS patients over time.

2.2.3 Type of knowledge relevant to professional nurses

Clinical Judgment:

Nurses must deal with a broad range of issues related to the condition of each patient, including complications and improvements, as well as annotations to clinical records and communications with physicians. As such, the nurse's judgment is at the heart of care delivery. Judgment guides action and decisions, not only of the nurse, but also of physicians and other care providers. It is therefore essential for the nurse to have observational and reasoning skills in order to make sound, reliable clinical judgments. Clinical judgment is not limited to identifying a problem; it also involves seeking a broad range of possibilities. Clinical judgment enables the individual to recognize the aspects of a given situation, to foresee possible interventions to stabilize the condition of a patient, to articulate the nursing perspective for all situations which require care delivery, to determine which areas leave room realistically for personal improvement and development, and to make elaborate qualitative distinctions in critical areas of the profession (Dias, Matos & Concalves, 2006:260)

Professional nurses need to be knowledgeable about HIV and AIDS for them to be able to make informed clinical judgments and to render scientifically sound nursing care to the affected patients. The clinical judgments have a potential to influence the disposition of the nurse towards the patients.

2.2.4 Knowledge needed to care for HIV / AIDS patients

Professional nurses need to have knowledge on how to counsel patients so that they are able to help them to change their behavior with regard to the spread of disease to

other members of society. Counseling skills also help nurses to establish rapport with the patients as this allays fears to the patients and are able to discuss their fears about the disease and death and dying. Knowledge on how to dispel myths is also incorporated in counseling (Mitchel.2006:123).

Professional nurses need to have a sound knowledge of nursing sciences in relation to the promotion of comfort to the patient, managing stress, adhering to good basic standards of hygiene and avoiding risk behaviors. The implications of such knowledge impacts positively in the care of HIV and AIDS patients. Nurses should always display positive attitudes towards these patients, so that they feel accepted irrespective of the diagnosis. A sound knowledge of HIV and AIDS, the transmission and prevention of HIV, serve as a source of information to their patients (Oyeyemi 2006 :12).

2.2.5 Impact of lack of HIV and AIDS knowledge

Discrimination and lack of confidentiality: HIV and AIDS patients are often discriminated against whilst receiving care in health services, consciously or unconsciously. This may be in the form of lack of confidentiality or giving HIV negative patient's preferential care (Mitchel,2006:112). The patient has rights, one of which is the right to confidentiality. Lack of confidentiality has been repeatedly mentioned as a particular problem in health settings. Studies by the World Health Organization (WHO, 2008), in India, Indonesia and Philippines, found that thirty four percent of the respondents reported breaches of confidentiality by health workers. Some people did not get an opportunity to choose how, when and to whom to disclose their HIV status. This therefore means that every health worker has to protect this right by ensuring that any information about the

patient's illness or treatment is not disclosed to another person unless the patient has given consent to do so.

It is against the law to refuse to treat a patient because of an HIV positive status as this discriminates against the patient. If a health worker refuses to treat someone living with HIV, he or she can be reported to the Department of Health or the Public Protector. The High Court could then review the person's or hospital's decision to refuse to give treatment (Sharman 2009:78).

Professional nurses are not allowed to refuse to render care of inferior quality to HIV and AIDS patients.

2.3 Attitudes towards HIV and AIDS patients

2.3.1 Attitude

An attitude is characterized by an affective or emotional response, a behavioral intention or verbal indication as well as a cognitive evaluation of an entity that constitutes an individual's beliefs about the object and degree of preference for an entity, (Angleton, Wood & Malcom (2005:123). It is a disposition to act in a certain way, either positively or negatively, towards an aspect of one's environment including other people.

Nurses display negative attitude through certain behaviors such as neglecting HIV positive patients, denying them care for fear of contagion, labeling patients as having contracted HIV through their promiscuous behavior and as a result of their personal

irresponsibility as well as the compulsory testing and screening of individuals and groups (Leuwenstone, 2007:180).

In a study by UNAIDS (2008), (Rehle &Shisana, 2003) nurses denied care to the patient by refusing them treatment for repetitive infections they come with to the service, an indication of negative attitudes,

Tavossi (2000;322) reported that thirty-five percent of the student nurses preferred not to sit near an HIV positive person in class, and forty- two percent showed that they would limit their interaction with HIV positive colleagues if they were HIV infected. This is one aspect of demonstrating a negative attitude towards the HIV positive people.

Attitudes serve a primary function of bringing together diverse experiences in which an individual is exposed to and forming them into a cohesive organized whole. The danger is that attitudes may become so rigidly adhered to and thus develop into a perception (Aisien and Shobole 2005:56). The attitudes of professional nurses whether positive or negative emanate from how they perceive HIV and AIDS patients.

2.3.2. Negative attitude of nurses

Nurses display negative attitude through certain behaviors such as neglecting HIV positive patients, denying them care for fear of contagion, labeling patients as having contracted HIV and AIDS through their promiscuous behavior and as a result of their personal irresponsibility as well as the compulsory testing and screening of individuals and groups (Leuwenstone, 2007:180).

Behaviours of professional nurses indicative of negative attitudes towards HIV and AIDS patients were also a focus of investigation in this study.

Other behaviors of nurses which are an indication of negative attitudes towards the patients are related to the breach of confidentiality (Sharman, 2009; 124). Nurses do not give the patients an opportunity to choose how, when and to whom to disclose their HIV status. They disclose information about the patient's illness or treatment to other people without the consent of the patient, though not all nurses display this attitude (World Health Organization (WHO), 2008); (Nyblade:321). In some instances, nurses are reported to be disrespectful by words or actions towards the patients, yet patients need to be treated with respect (Goldberg and Tarcher, 2003:358). Nurses with previous experience of working in HIV prevalent areas, show empathy and have strong intentions to care for HIV- infected patients(Terraso and Highriter, 2006:77).

Nurses who demonstrate behaviors indicative on negative attitudes, tend to have a strong fear of acquiring HIV, more especially in relation to needle-prick injuries which are a common cause of transmission of blood- borne pathogens amongst nurses. Such nurses tend to test patients inappropriately for HIV in health facilities (Oyeyemi 2006:340). They are also unwilling to sit next to an HIV positive patient and they limit their interaction with their HIV positive colleagues (Tavossi 2000:345). They deny patients care by refusing them treatment for repetitive infections they present within the health service as an indication of a negative attitudes (UNAIDS 2008)0, (Rehle Shisana, 2003:235).

Negative attitude impacts negatively on patients leading to either non-disclosure of their HIV positive status, difficulty to seek treatment and support for fear of being stigmatized and discriminated against by nurses. Negative attitudes lead to reduced standards of care for example testing the helpless and vulnerable without their consent as well as inappropriate counseling of patients (Leuwenstone, 2007:180).

The level of knowledge of HIV and AIDS is a factor in determining the nature of nurses' attitudes towards the patients as those who are more knowledgeable tend to demonstrate positive attitudes, (Ramanzekani, 2004:156).\

It is assumed that professional nurses with limited knowledge of HIV and AIDS could demonstrate negative attitudes to the patients.

2.3.3. Required attitudes for professional nurses

The very nature of the nursing profession is based on being caring, respectful, upholding the patients' rights. The nursing profession requires nurses to be empathetic and sympathetic towards the patients and also emphasizes being proficient, competent and accountable for own commission and omissions. Nurses are expected to adopt a positive attitude towards their patients. Nurses are expected to demonstrate unconditional acceptance of patients as human beings irrespective of their affliction. They are expected to be advocates for the patients and to ensure that they are treated with respect (Leuwenstone 2007:123).

Professional nurses who respond effectively to their advocacy role and who demonstrate unconditional acceptance of the HIV and AIDS patients are regarded to be positive.

2.4. Strategies to increase level of knowledge and to create positive attitudes

Increasing the levels of knowledge of nurses with regard to HIV and AIDS, has a potential to influence their attitudes positively resulting to better quality care of the patients (Sharman (2009). Various strategies have been adopted to increase the level of knowledge of nurses, for example, through formal training, awareness raising messages and programmes from the print and electronic media,. Other forums for creating awareness are related to formal institutional education, for example, at schools and in churches (O'Toole, 2007:12).

Healthcare professionals who had been trained in HIV and AIDS tend to have more favourable attitudes towards the patients (Aghamolaei, 2008:132). This indicates that it is important to equip nurses with skills and knowledge about the transmission of, as well as the management of HIV and AIDS patients as nurses with lower knowledge levels tend display negative attitudes towards HIV- infected individuals (Nakhae, 2002:178); (Tavoosi, 2000;340) and (Laschinger and Goldberg, 2000:451).

Training in these aspects includes all aspects related to transmission of the disease, that is, its prevention and management as well as the psycho-social care of the patients(Tavoosi,2000). Training also includes information on the fact that patients need to be allowed to make decisions about their medical treatment, not to be forced to have an HIV test, and not to be refused health and medical treatment because of their positive status, (Goldberg and Tarcher, 2003).

In this study the investigation focused on what nurses know about the transmission of HIV and the management of the affected patients.

2.5. Conclusion

In this chapter literature was reviewed on issues related to the knowledge of HIV and AIDS, the type of knowledge needed for the care of HIV positive patients, the nature of attitudes towards HIV positive people and strategies to increase the level of knowledge and to promote positive attitudes toward HIV-positive patients.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents a description of the research methods and research design used in this study.

3.2 Research Design and Methods

In this study a quantitative, explorative and descriptive design was used as it sought to examine knowledge of professional nurses about HIV and AIDS and their attitudes towards HIV positive patients.

Burns & Grove (2009:218), describe a research design as a blue print for conducting a study. It maximizes the control over factors that could interfere with the validity of the findings. The research design guides the researcher in planning the study in a way that is most likely to achieve the intended goal. Kumar (2005:235), states that a research design is a plan, structure or strategy of investigation so conceived so as to obtain answers to research problems. It is a complete scheme or programme of research. It is a procedural plan that is adopted by the researcher to answer questions validly, accurately, objectively and economically.

3.3 Quantitative Research

According to De Vos (1998:15), quantitative research is an approach to research in Social Sciences that is highly formalized and explicitly controlled. This study used a quantitative approach to deal with numerical values in the form of statistical tests. A questionnaire was used to collect data (Gorard, 2003: 10). This approach also assisted

the researcher in investigating and quantifying the proportions on the level of knowledge of professional nurses and on the nature of their attitudes towards the patients. This design was also preferred as it sought to improve the precision of the three scales of measurement for the identified variables.

3.4 Exploratory Research

Exploratory studies which are most typically done to satisfy the researcher's curiosity and desire for improved understanding, and it occurs when a researcher examines a new area of interest or when the subject of study itself is relatively new (Babbie,2001: 91-92). According to Malhotra (1999: 85), the objective of exploratory research is to explore or search through a problem or situation to provide insights and understanding. Exploratory research could be used for any of the following purposes, namely, to formulate a problem or define a problem more precisely; to isolate key variables and relationships for further examination; and to gain insights for developing an approach to the problem.

The knowledge of professional nurses with regard to HIV and AIDS and their attitudes towards HIV positive patients, were explored by the researcher for the first time in the Libode District Health Services.

3.5 Descriptive Research

Descriptive quantitative research is conducted to describe new situations, events or concepts in the world and it is conducted when little is known of the phenomena being studied. . The constructs described were related to knowledge of registered nurses on

HIV and AIDS and their disposition towards the HIV positive patients. Other constructs described were related to the demographic traits of the professional nurses at the Libode District Health Services who render services to HIV and AIDs patients; the percentage of units in this population who exhibited the constructs being measured in each variable (Malhotra,1999:87).

3.6 Study population

A population is the larger pool from which the sampling elements are drawn and from which the researcher wants to generalize the findings (Terre Blanche, Durkheim and Painter, 2006:90). Burns and Grove (2009:42), state that "population is all the elements (individuals, objects, and substances) that meet certain criteria for inclusion in a given universe". Bartlet and Kortlik (2001: 43-50), define population as "the whole of the people the researcher wants to understand". The target population for this study consisted of all professional nurses at the Libode District Health Services as they all render nursing care to HIV and AIDs patients. The targeted number was all two hundred and eighteen (N=218).

3.7 Study sample

A study sample is part or fraction of a whole sub-set of a larger set selected from the defined population by the researcher to participate in a research project and that it has to be large enough to be representative of the population being studied (Brink, 2002:133).

The researcher established a sample frame of the professional nurses from the allocation list of professional nurses obtained from the Deputy Manager Nursing and the District Manager in charge of the health services. The professional nurses were selected because they had nursed HIV and AIDS patients, Numbers were assigned consecutively for each professional nurse in the change list.

This was possible to do because of the smaller size of the population. A table of random numbers was then used to draw a sample of the desired size of 120, (n=120). The researcher then identified a starting place in the table of random numbers by blindly placing a finger at some point on the page. To include all the numbers between 1 and 218, two digit combinations were used. The single digit numbers were preceded with a zero (0) for example, 5, was written as 05. The professional nurse whose name corresponded to the first selected number was regarded as the first participant for the study. The selected numbers continued to be part of the sample frame. If a number had already been selected it was then put back in the frame.

The process continued until desired number of one hundred and twenty (n =120) participants were selected. The sample selection was not subject to researcher bias. This approach also ensured that whatever differences in the attributes of the sample and population there were, were purely a function of chance.

3.7.1 Sample realization

Of the one hundred and twenty (120) questionnaires administered, seven (7) participants did not complete the questionnaires and this reduced the sample size to 113 (n=113), giving a 94% return rate. Out of the 113 returned questionnaires, four (4) questionnaires were discarded as they had gaps and were therefore incomplete. Only one hundred and nine (109), that is, 91% were usable. Data analysis was based on the one hundred and nine (n=109) participants.

3.8 Instrument and data collection

A structured, written, self- administered questionnaire was used to collect data from professional nurses that were based in the Libode District Health Services. Each participant had instructions on how to complete the questionnaire. Closed-ended statements were used wherein participants were to choose from a number of response choices.

Responses were recorded on a 5- Likert scale. The 5- Likert scale determines the opinion or attitude of a participant and contains a number of declarative statements with a scale after each statement (Burns & Grove, 2009: 410). The scale had agreement options with statements from strongly agree to strongly disagree. The questionnaire was adapted from a study conducted by Link and Charap (2009), on AIDS related knowledge, attitudes and precautionary behaviors among emergency medical professionals. The questionnaire had three sections, namely, the demographic data, the statements on knowledge of HIV transmission and statements on behaviors depicting attitudes towards HIV positive patients. One

hundred and twenty questionnaires were delivered by hand to the participants and were collected after five days. The one hundred and nine collected questionnaires were all assigned identification codes for purposes of data analysis.

3.9 Demographic Data:

The first section of the questionnaire required demographic data in order to determine if any association existed between the demographic traits and the level of knowledge of HIV and AIDS and the attitudes of the nurses. This section had four questions on personal details in relation to age, gender, qualifications and years of experience in the nursing profession. The demographic section required participants to record their responses by marking with an (X) in the appropriate space provided.

3.10 Knowledge of HIV and AIDS:

This section of the questionnaire was meant to obtain responses from the participants on what they knew about HIV and AIDS. The focus was on the routes of transmission of the virus. There was a set of eight declarative statements to which the participant had to indicate the level at which he/she agreed or disagreed with the content of the statement.

The participant had to mark with an (X) on the Likert scale, the item that best described his/her views about the statement. The Likert scale ranged from 'strongly disagree' with a numerical value of 1, equals no knowledge at all of the issue addressed in the statement, 'disagree' with a numerical value of 2, equals to less knowledge, 'neither agree nor disagree' with a numerical value of 3, equals to fair amount of knowledge, 'agree' with a numerical value of 4 equals to good knowledge, and 'strongly agree' with a numerical value of 5, equals to extremely knowledgeable. The high score of 5 on this scale meant extremely high levels of

knowledge. The total score was 40. The cut-off point was set at 24, (60%) and any score below 24 was considered to be low level of knowledge.

The statements to test knowledge of HIV and AIDS were as follows:
Sexual intercourse can spread HIV1-5; Sharing cups and spoons can spread HIV 1-5; HIV can be spread from an infected woman to her child during pregnancy and birth1-5; Contact with urine can spread HIV1-5; Mosquitoes can spread HIV 1-5; HIV can spread from an infected woman to her child during breastfeeding1-5; Coughing and sneezing can spread HIV 1-5 and Blood transfusion can spread HIV1-5.

3.11 Attitude towards HIV-positive patients:

This section had twelve (12) declarative statements to which the participant had to indicate the level at which he/she agreed or disagree with the content of the statements. The responses were meant to reveal the nature of their attitudes towards the patients. Participants were expected to mark their responses by means of an (X) on a scale of 1 to 5.

The statements to test attitudes were as follows: Patients with HIV are responsible for their illness1-5; Patients with HIV and AIDS deserve punishment for their risk behaviours1-5; I feel worried about caring for patients with HIV and AIDS1-5; 5; I am willing to assist with an operation on HIV positive patients1-5; I am willing to assist with the delivery of a baby born to a mother who is HIV positive 1-5; Patients with HIV and AIDS need to be nursed separately from other patients1-5; I would

prefer not to care for HIV and AIDS patients 1-5; The beds of HIV and AIDS patients should be marked1-5; Relatives/ sexual partners of patients who are HIV positive should be notified of the patient's status even without his or her consent1-5; Patients who are HIV positive should not be admitted to hospitals 1-5; and patients with HIV and AIDS should be isolated from the society 1-5.

The interpretation of the responses in relation to six (6)) items on the attitude scale was classified as follows: strongly agree being equivalent to an extremely negative attitude, which was allocated the highest score of 5; agree, equivalent to a score of a very negative attitude, with a score of 4; neither agree nor disagree, equivalent to a score of 3 which was interpreted as negative; disagree equivalent to a score of 2 , interpreted as a positive attitude and strongly disagree with a score of 1 interpreted as an extremely positive attitude towards HIV positive patients. These statements were scored negatively to avoid inserting bias into the responses. Another six statements on attitudes were scored positively with 5 equals to strongly disagree, interpreted as an extremely positive attitude; 4 equals to disagree, a very positive attitude, 3 equals to neither agree nor disagree, a negative attitude, 2 equals to agree a very negative attitude and 1equals to strongly agree, an extremely negative attitude. High scores in this scale meant a very positive attitude.

The scale values of the six (6) negatively expressed items were reversed before data analysis was done to be in line with the other six positively scored statements. All the statements were analyzed at the level of strongly disagree with a numerical value of 5

equals to extremely positive attitude, disagree equals to 4, a very positive attitude, neither agree nor disagree, 3, a negative attitude, agree, equals to 2, a very negative attitude and strongly disagree, equals to 1, an extremely negative attitude. The total score was 60 with a cut-off point set at 36 (60%). Any scores below 60% was interpreted to be a negative attitude and above 36(60%, interpreted as a positive attitude.

3.12 Reliability and validity of the instruments

In order to obtain valid and reliable data the measuring procedures and the measurement instruments must be at acceptable levels of reliability and validity. The reliability of a measure denotes the consistency of measures obtained in the use of a particular instrument and indicates the extent of a random error in the measurement method (Burns & Grove, 2009). The researcher ensured the reliability and validity of the instrument as the instrument was adapted from Link and Charap (2009).

3.12.1 Reliability

Brink (2002: 167-172), defines reliability as "the degree to which the instrument can be depended upon to yield consistent results if used repeatedly over time on the same person or if used by two different investigators. To ensure reliability, the following methods were used:

Cronbachs Alpha:

The reliability of the instruments was tested using Cronbach's Alpha co-efficient value to measure the extent to which all the items in the instrument consistently measure the

construct. This was done to examine the amount of random error in the measurement technique. Pallant (2001:92), indicates that Cronbach's Alpha correlation coefficient should be at least 0.7.

The Knowledge scale originally had 10 items and the reliability level was 0.46 (n=109). Two items which had low factor weights were deleted in order to improve the reliability of the instrument. The reliability of the 8- item scale increased to 0.7. The attitude scale with 12 items, had a reliability level of 8.

3.12.2 Pilot study

A pilot study was conducted to test feasibility and clarity of the questionnaire to be used. The time it would take to complete a questionnaire was also taken into consideration. Ten professional nurses were randomly selected for the pilot study and it was conducted in June 2010. Data collected from the pilot study was analyzed to ensure clarity of the statements in the questionnaire and to make other necessary adjustments. There were no adjustments made as there were uniform responses to the questions. The participants responded to the questionnaires in five days.

3.12.3 Validity

Validity of an instrument determines the extent to which it actually reflects the abstract construct being examined (Burns & Grove, 2009). The instrument must measure accurately what it is supposed to measure given the context in which it is applied (Brink, 2002: 167-172). This means that the measure should provide a good degree of fit

between the conceptual and operational definitions of the construct and it should be usable for the particular purposes for which it was designed (Terre Blanche, Durrheim & Painter, 2006).

The following methods were used to ensure validity of the instrument:

3.12.4 Content Validity

The content validity is concerned with the representativeness or sampling adequacy of the content of an instrument (de Vos, 2002: 167). The questionnaire was developed on the basis of extensive literature reviews; all statements in the questionnaire were adapted from Link and Charap, (2009). as published in the Archives of Iranian Medicine, on the statements on medical personnel's knowledge and attitudes. Content validation is also a judgment process (de Vos, 2002: 167). The instrument was evaluated by the study supervisors who had extensive experience in supervising students doing masters studies and who are experts in research methodology. The researcher ensured the validity of the instrument by, firstly, ensuring that it had the major elements relevant to the constructs being measured, that is, knowledge and attitudes and secondly, by conducting an extensive literature search to assist with the identification of what was to be measured, that is, the domain of the constructs.

3.12.5 Face Validity

Face validity is a desirable characteristic of a measuring instrument (De Vos,2002 :167). In this study the instrument was designed using an acceptable format for the

presentation of the questions. The following methods were used to assess face validity in the study:

- Research supervisors with extensive clinical, research and supervising experience, experts of HIV and AIDS in the AIDS Centre in the University of Fort Hare and health sectors, as well as an experienced statistician, evaluated and approved the data-gathering instrument.
- The identification of the relevant population for the study also assisted in ensuring some degree of validity.
- A pilot study was conducted to ensure that clear and understandable wording was used.
- A thorough literature search was conducted to ensure that the data in the questionnaire corresponded with what was found in the available literature regarding professional nurses' knowledge of HIV and AIDS and their attitudes towards patients.
    - All the participants agreed to participate and to complete the instrument an indication of their perception that the instrument measured the content they agreed to provide. The items met clarity criterion as all participants had the same understanding of the items.

3.13 Ethical considerations

Ethical considerations were adhered to as follows:

Permission: A letter was written to the University of Fort Hare, where the researcher is studying, to request ethical clearance and approval to conduct the study,. An ethical clearance certificate was obtained from the university. Two other ethical approval request letters were written to the Eastern Cape Department of Health Research unit and to the management of the Libode District Health services, the study site (Appendix 2 and Appendix 3).

Informed consent in a research study refers to voluntary participation based on full disclosure of all information relating to the research, as well as ways of protecting privacy, anonymity and confidentiality (Burkhardt & Nathaniel, 2002:240). An informed signed consent was obtained from the participants after full explanation had been given about by the purpose of the study and the benefits to them, whether directly or indirectly. The participants were assured of privacy and anonymity and that confidentiality would be maintained.

The right to self-determination was ensured by explaining to the participants that participation in the research was voluntary and that they were free to refuse or terminate participation if they felt uncomfortable with the research. They were informed that if they felt that their rights were violated, they were free to contact an identified research personnel member and were given phone numbers of the researcher's supervisor where they could report should they feel violated.

Anonymity means that no one including the researcher knows the identity of the research participants (McIntyre, 2005: 77). Anonymity was guaranteed by allocating a number to each questionnaire and ensuring that no identifying information was recorded on it. When the participants filled in the questionnaire, the researcher explained to the participants that no form of identification was shown on the questionnaire.

Privacy refers to the protection of information normally not intended for others to observe or analyze (de Vos et al., 2002:67). Data was shared only amongst the people who were involved in the study, that is, the researcher, supervisors, statistician and moderators.

Confidentiality refers to the researcher's assurance to participants that information provided would not be made public or available to anyone other persons either than those involved in the research process without the participants' consent. Confidentiality was maintained by restricting access to raw data to those on the research team who needed to use it. The participants were also made aware that if any conflicts occurred they could complain to any of the ethics committees. The participants were made aware of the potential risks and benefits of participating in this study and were also informed about their right not to participate. They were informed that there was no risk involved in participating in the research and that they would be doing so voluntarily.

3.14 Conclusion

In this chapter the research design and methods used in this study were discussed, including a detailed description of the research instrument and the data collection

process. Ethical considerations were also discussed. The next chapter deals with the data presentation, data analysis and interpretation of the results.

CHAPTER 4: DATA ANLYSIS, PRESENTATION AND DISCUSSION OF RESULTS

4.1 Introduction:

This section focuses on data tabulation, presentation, statistical analysis and discussion of results. Data analysis is a process of choosing methods for organizing raw data and displaying them in a manner that provides answers to the research question (Brink, 2002:178). The presentation consisted of data collected from the participants. The results of the analysis were discussed based on the findings, and conclusions were drawn.

4.2. Data Analysis

All the usable questionnaires were allocated a participant code number for purposes of identification. The analysis focused on analyzing variable values in the entire sample (Burns & Grove, 2009:132). Data were cleaned to detect any errors that may have occurred when the participants responded to the questions. Data were analyzed using Statistical Package for the Social Sciences (SPSS) 17.0 software for Windows with a focus on mainly descriptive statistics. Data for each participant, were analyzed according to the three sections of the questionnaire namely, demographic data, knowledge of HIV and AIDS and attitudes towards HIV positive patients. A computer analysis of the frequencies of each variable was performed as a second check of the accuracy of the data. There were no missing data identified.

Descriptive statistical analysis for the frequencies, the means, modes and standard deviations, where applicable, were conducted on all the variables. The scores on variables of knowledge and of attitudes were formed on the basis of responses to each

statement of the variables as scored on a scale of 1 – 5. Frequencies and percentages were computed on each of the variables for each participant based on the individual statements. The results of the statistical tests are presented in tables and bar graphs.

Scores of scales: High scores in these instruments meant excellent knowledge and extremely positive attitude. Knowledge and attitude scales had a maximum possible score of 60 points per participant.

4.3. Presentation of results

Presentation of results was based on sample realization, results on demographic data and on knowledge and attitudes of professional nurses.

4.3.1 Section A: Demographic data

Demographic data was on the personal attributes of the participants, in relation to age in years, qualification, and years of experience in the nursing profession.

Age Distribution:

For purposes of data analysis, age was categorized into two groups, 20 – 39 years and 40 – 59 years. The ages of participants ranged between 29 and 59 years. The majority of participants, (n=57), 53%, were above 40 years of age and the minority, (n = 52), 47%, were below 40 years of age, the mean age of professional nurses was 43.39 as indicated by Figure 4.1: The Mean of age of professional nurses. The relevance of age distribution in relation to knowledge and attitude is that if the majority is either knowledgeable or lacks knowledge, it would be those who are above 40 years of age.

The same interpretation would be made of either extremely positive or extremely negative attitudes.

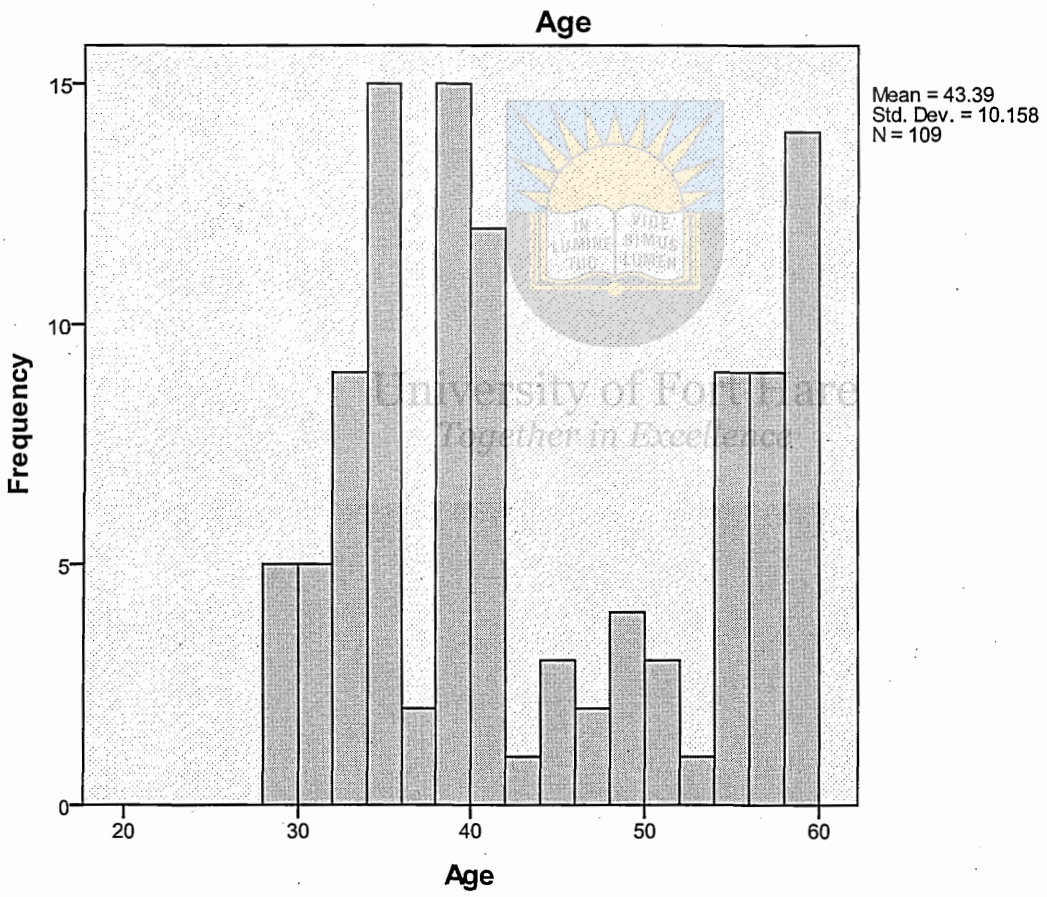

Figure 4.1: The Mean of Age of Professional Nurses

Burlew (2007:321), in a study on age differences in knowledge and attitudes of HIV transmission among African- Americans, found that older African- Americans were not as knowledgeable as their younger counterparts.

Gender Distribution:

The majority of participants (n=90), (83%), of the participants were females and (n=19 (17%) were males, an indication that female professional nurses are in the majority, (Table 4.1 Gender Distributions). The relevance of gender distribution in relation to knowledge and attitude is that if the majority of participants are either knowledgeable or lack knowledge, an assumption would be made that they are females and the same assumption would be made of attitudes.

Table 4.1 Gender Distributions:

Age	Gender Male	Female	Total
20-39yrs	13(68%)	72(83%)	85 (78%)
40yrs and above	6(31.58%)	18(20%)	24(22%)
Total	19(100%)	90(100%)	109(100%)

In Dias, Matos, & Concalves, 2006, females were more knowledgeable and had more positive attitudes towards people with HIV and AIDS than males.

Distribution of Qualifications:

The majority 50 (45.9%) of professional nurses, had a degree, and 47 (43.1%), had a diploma and12 (11%) had other qualifications as indicated in (Table 4.2. Frequencies of professional nurses' qualifications).

Table 4.2: Frequencies of professional nurses' qualifications

Qualifications	Frequency	Percent	Valid Percent	Cumulative Percent
Diploma	47	43.1	43.1	43.1
Degree	50	45.9	45.9	89.0
Other	12	11.0	11.0	100.0
Total	109	100.0	100.0	

In this study, an assumption was made that a Degree is a higher qualification than a Diploma and other qualifications, and thus it was expected that participants with degrees would have higher scores on knowledge. In Bedimo, (2000:234) nurses with higher levels of education and of the younger generation were reported to be more knowledgeable about HIV transmission than the older generation.

Distribution of Years of experience in the nursing profession:

The results on years of experience show that the majority of participants 69 (63.3%) had between 20 to 29 years of experience in the nursing profession, and 56% of these were females and 7% were males. Twenty seven (n=27), 24.8% had above 30 years of experience, 24% of these were females and only 1% were males. 7 (6.4%) of participants had 10 – 19 years of experience and were all females. Six 6 (5.5%) had 1

to 9 years of experience and were all females, (Table 4.3: Distribution of years of experience in the nursing profession by gender).

Table 4.3 Distribution of years of experience in the nursing profession by gender

Years of experience	Gender Male	Female	Total
1-9 yrs	0	6(5.5%)	6(5.5%)
10-19 yrs	0	7(6.4%)	7(6.4%)
20-29yrs	8(7.3%)	61(55.9%)	69(63.3%)
Above 30yrs	1(0.9%)	26(23.8%)	27(24.7%)
Total	9	100	109

In this study it is assumed that those (n=27) with more years (30) of experience in the nursing profession and who are females, would be knowledgeable about HIV and AIDS than those with less experience, who are males. It is also assumed that those with more years of experience would adopt a positive attitude towards the HIV and AIDS patients.

In Terraso and Highriter (2006:219), nurses with previous experience of working in HIV prevalent areas, show empathy and have strong intentions to care for HIV infected patients.

4.3.2 Section B: Knowledge

Participants were asked to indicate whether they agreed or did not agree to statements regarding HIV and AIDS in relation to the routes of HIV transmission. The results on knowledge of professional nurses about the routes of transmission of HIV are shown in (Table 4.4: Knowledge of HIV Transmission).

Presentation of results on statements regarding knowledge of HIV Transmission is as follows:

Sexual intercourse can spread HIV: most of the participants n= 68 (62.39%) strongly agreed to the statement, and indication of being knowledgeable, and (n= 39(35.78%) agreed, and indication of being very knowledgeable that sexual intercourse can spread HIV and only 2 (1.83%) lacked knowledge. The knowledge score n=68, was above the cut off point of 24 for being knowledgeable.

Sharing cups and saucers can spread HIV: most participants n= 93(85.32%) were knowledgeable that sharing cups and saucers cannot spread HIV as n= 63(57.80%) disagreed to the statement and n=30(27.52%) strongly disagreed to the statement. Only 4 % agreed and 1% strongly disagreed with the statement and 11% were neutral and such responses were interpreted as lack of knowledge of in relation to HIV transmission through sharing of cups and saucers with an HIV positive person. The knowledge score of the majority was above the cut-off point of 24.

Mother to child transmission: Most participants had knowledge that HIV can spread from the mother to her child as 97 (88%) of participants agreed to the statement.

Contact with urine can spread HIV: Most participants 81 (74%) of the participants disagreed to the statement and this shows that most participants had knowledge that contact with urine cannot spread HIV.

Mosquitoes can Spread HIV: most participants, 87 (79.82%) of the participants had knowledge that mosquitoes cannot spread HIV and only 20.14% had no knowledge.

Breast feeding can infect a baby: most participants, 96(88.07%) had knowledge that breast feeding can infect the baby and only 13 (11.92%) were less knowledgeable.

Coughing & sneezing can spread HIV: most of the participants, 78 (71.56%) had knowledge that coughing and sneezing cannot spread HIV, only 15 (13.76%) had less knowledge and 12 (11.01%) were neutral.

Blood transfusion can spread HIV: most of the participants 101 (92.66%) had knowledge that blood transfusion can spread HIV and only 8 (7.34%) had no knowledge that blood transfusion can spread HIV.

TABLE 4.4: KNOWLEDGE OF HIV TRANSMISSION

	Strongly Agree n (%)	**Agree n (%)**	**Neither agree nor Disagree n (%)**	**Disagree n (%)**	**Strongly Disagree n (%)**
Sexual intercourse Can spread HIV	68 (62.39)	39 (35.78)	-	2 (1.83)	-
Sharing cups & Saucers can spread HIV	1(0.92)	4(3.67)	11(10.09)	63(57.80)	30(27.52)
Mother to child transmission	27(24.77)	69(63.30)	7(6.42)	6(5.50)	-
Contact with urine Can spread HIV	2(1.83)	18(16.51)	8(7.34)	58(53.21)	23(21.10)
Mosquitoes can Spread HIV	2(1.83)	10(9.17)	10(9.17)	54(49.54)	33(30.28)
Breast feeding can infect a baby	19(17.43)	77 (70.64)	3(2.75)	7 (6.42)	3(2.75)
Coughing &sneezing Can spread HIV	3(2.75)	12(11.01)	16(14.68)	49(44.95)	29(26.61)
Blood transfusion can Spread HIV	28(25.69)	73(66.97)	-	7(6.42)	1(0.92)

From the results it seems the majority of professional nurses at the Libode District Health services are knowledgeable about the routes of HIV transmission as they scored above the cut-off point of 24, and only a minority seem to lack knowledge of HIV transmission, with scores of less than 24.

Bedimo, (2000), about high levels of knowledge about HIV and AIDS, reported that high knowledge seems to be a predictor of positive disposition towards persons who are HIV- positive and thus ensures good quality care.

4.3.3 Section C: Attitude

The participants were asked to indicate whether they agreed or did not agree to statements regarding their attitude towards HIV and AIDS patients. The results on attitude of professional nurses towards HIV and AIDS patients are shown in (Table 4.5: Attitudes towards HIV positive patients).

TABLE 4.5: ATTITUDES TOWARDS HIV POSITIVE PATIENTS

	SA	A	N	D	SD
HIV positive patients are responsible for their illness	2(1.83)	28(25.69)	7(6.42)	38(34.86)	34(31.19)
HIV patients deserve punishment	2(1.83)	25(22.94)	1(0.92)	32(29.36)	49(44.95)
I feel worried about HIV positive patients	4(3.67)	47(43.12)	6(5.50)	27(24.77)	25(22.94)
Refuse to care for HIV positive patients	2(1.83)	28(25.69)	13(11.93)	38(34.86)	8(25.69)
Willing to assist HIV positive	13(11.93)	77(70.64)	9(8.64)	8(7.64)	2(1.83)

patients during operation					
Willing to assist delivering HIV positive patients' baby	13(11.93)	76(69.72)	9(8.62)	7(6.42)	4(3.67)
HIV positive patients should be nursed separately	2(1.83)	51(46.79)	2(1.83)	31(28.44)	23(21.10)
Prefer not to care for HIV positive patients	41(37.61)	-	5(4.59)	39(35.78)	4(22.02)
Beds of HIV positive patients should be marked	-	18(16.51)	16(14.68)	42(38.53)	33(30.28)
Relatives /partners of HIV positive patients to be notified of their status without their consent	-	34(31.19)	4(3.67)	39(35,78)	28(25.69%)
HIV positive patients should not be admitted	1(0.92)	37(33.94)	6(5.50)	39(35.78)	26(23.85)
HIV positive patients should be isolated	-	17(15.60)	13(11.93)	50(45.87)	29(26.61)

Attitudes of professional nurses towards HIV positive patients:

Presentation of results on statements regarding attitudes of professional nurses towards HIV positive patients were as follows:

HIV positive patients are responsible for their illness: Some of the participants showed a positive attitude towards these patients, as 38(34.86%) disagreed to the statement that, "HIV positive patients are responsible for their illness", and 34(31.19%) strongly disagreed to the statement. Only 30(27.52%) showed negative attitudes to HIV and AIDS patients as they agreed with the statement with 6% being neutral.

HIV positive patients deserve punishment for their risk behaviours: Some of the participants showed positive attitudes as 49 (44.95%) strongly disagreed to the statement and 32(29.36%) disagreed to the statement that HIV positive patients deserve punishment for their risk behaviours" and only (22.94%) agreed to the statement and 2(1.83%) strongly agreed thus showing a negative attitudes.

I feel worried about HIV positive patients: Half of the participants, showed positive attitudes towards HIV positive patients as 27 (24.77%) disagreed to the statement and 25 (22.94%) strongly disagreed to the statement. Another half, were negative towards HIV positive patients as 47(43.12%) agreed to the statement, only 6 (5.50%) were neutral to the statement.

Refuse to care for HIV positive patients: Some of the participants showed positive attitudes towards these patients as 38 (34.86%) disagreed to the statement that they will refuse to care for HIV positive patients and n=28(25.69%) strongly disagreed to the statement. The majority seemed to have positive attitudes.

Willing to assist HIV positive patients during an operation: The majority of the participants, 77(70.64%) agreed to the statement, "I am willing to assist HIV positive patients during an operation, thus showing a positive attitude. Only 10(11.31%) showed negative attitudes and 9(8.67%) were neutral.

Willing to assist delivering HIV positive patients 'baby: The majority, 76(69.72%) showed positive attitude towards HIV positive patients as they were willing to assist delivering HIV positive patients 'baby. Only (10.09%) showed negative attitudes.

HIV positive patients should be nursed separately: Almost half of the participants showed positive attitudes towards HIV positive patients as 53(51.54%) disagreed with the statement "HIV positive patients should be nursed separately" and another half showed negative attitudes the patients.

Prefer not to care for HIV positive patients: The majority 61 (57.70%) of the participants showed positive attitudes towards HIV positive patients as they preferred to care for the patients. Almost half of participants 39(35.78%) disagreed to the statement, and 5(4.69%) were neutral 4 thus showing a positive attitude.

Beds of HIV positive patients should be marked: The majority of the participants showed positive attitudes towards HIV positive patients as, 75(68.82%) disagreed to the statement and only 18(16.51%) agreed to the statement, that beds of HIV positive patients should be marked.

Relatives/partners of HIV positive patients should be notified of their status without their consent: Most 67(61.46%), of participants showed positive attitude as they disagreed to the statement that relatives/partners of HIV positive patients should be notified of their status without their consent. Only 38(34.9%) showed negative attitudes.

HIV positive patients should not be admitted: Most of the participants showed positive attitudes as 65(59.63%) disagreed to the statement that HIV positive patients should not be admitted and only 37(33.94%) agreed to the statement thus showing negative attitudes.

HIV positive patients should be isolated: Most of the participants showed positive attitudes, 79(72.48%) as they disagreed with the statement that HIV positive patients should be isolated. A minority of 20% agreed with the statement an indication of a negative attitude.

From the results it seems that the majority of professional nurses at Libode District Health Services have positive attitudes towards HIV positive patients as against a minority who have negative attitudes.

With regard to results on demographic data of professional nurses, it is assumed that those who are in the majority that is, women, older nurses, those with more years of experience in the nursing profession and those with higher qualifications, are more knowledgeable about HIV and AIDS and have positive attitudes towards HIV and AIDS patients.

It is also assumed that the minority of professional nurses, who have other qualifications either than a diploma or degree, are of a younger age, who have less experience in the profession and are males, have negative attitudes towards HIV positive patients.

Some of the statements in the attitude scale are related to a negative disposition and unwilling to care for the patients. Similar results are reported in Breier, Wildschut and Mgqolozana (2009). In their study participants expressed a need for counseling, not only in the case of needle-prick injuries, but also for staff who nurse terminally ill patients. This could be linked to a need for workplace wellness support programmes for nurses in an attempt to influence their attitudes for a positive disposition towards the patients.

Although only a minority of participants in this study have negative attitudes, the patients who are nursed by these nurses, are likely to receive poor quality care as reported in the literature. For example, a study conducted in India, Indonesia and Philippines found that thirty four percent of the patients reported breaches of confidentiality by health workers, (The World Health Organization, 2008).

Also in Leuwenstone (2007:580), it is reported that negative attitudes lead to reduced standards of care for example testing the helpless and vulnerable without their consent as well as inappropriate counseling of patients. Similar findings are reported in a study conducted in India on negative attitudes towards HIV positive patients wherein it was found that a lack of knowledge on HIV transmission and fear of contracting HIV in the workplace led to HIV- positive patients being neglected by health workers (Fusilier, (2001;329).

Some nurses do not give the patients an opportunity to choose how, when and to whom to disclose their HIV status. They disclose information about the patient's illness or treatment to other people without the consent of the patient (World Health Organization (WHO), 2008); (Nyblade, 2009:176).

Nurses display negative attitude through certain behaviors such as neglecting HIV positive patients, denying them care for fear of contagion, labeling patients as having contracted HIV and AIDS through their promiscuous behavior and as a result of their

personal irresponsibility as well as the compulsory testing and screening of individuals and groups (Leuwenstone, 2007:180).

4.4. Conclusion

The findings in this research show that although the majority of professional nurses at the Libode District Health Services are knowledgeable about HIV transmission and have positive attitudes towards HIV and AIDS patients, there is a minority that lacks knowledge and has negative attitudes towards the HIV-positive patients.

The results of the study were presented in this chapter in relation to the responses of the participants on the variables, age, gender, qualifications, experience, knowledge of HIV and AIDS and attitudes of professional nurses towards HIV positive patients.

CHAPTER 5: DISCUSSIONS, LIMITATIONS AND RECOMMENDATIONS

5.1 Introduction

This final chapter of the study focuses on the discussion of the research results, limitations recommendations for clinical practice, education and training and further research. Conclusions are derived from the study findings and are a synthesis of findings (Burns & Grove, 2009: 557).

The results of the study indicate that the research questions which were set at the beginning of this study have been answered. The research questions were as follows:

- How knowledgeable are the professional nurses about HIV transmission?
- How are the attitudes of professional nurses towards HIV positive patients?

The broader objective of this research has been attained. The objective was to explore and describe the knowledge on aspects related to HIV transmission and the attitudes of professional nurses towards HIV- positive patients at the Libode District Health Services in the Eastern Cape Province.

5.2. Knowledge:

The results of this study indicate that the majority of professional nurses of Libode District Health Services are knowledgeable about HIV and AIDS with regard to the transmission routes of HIV, with a minority which lacks knowledge. Those who are knowledgeable understand the modes of transmission of HIV as well as the routes which do not lead to transmission of the virus. Those who are knowledgeable possess senior qualifications in the form of diplomas and degrees and are older than 40 years of

age. Such nurses are likely to render quality services to the HIV positive patients, which is knowledge based on transmission routes.

The minority of the professional nurses at the Libode District Health Services lacks knowledge about the transmission routes of HIV as well as the routes which do not lead to transmission of HIV. These professional nurses possess other qualifications which are neither diplomas nor degrees and they are younger than 40 years of age. Such professional nurses are likely to render poor quality services to HIV-positive patients, which is not knowledge based on transmission routes.

In a study of attitudes of nurses and physicians in caring for HIV- positive patients, it was found that nurses' awareness, fear and emotions do play a part in determining the comfort level of care for HIV- positive patients. The results of the study indicate that nurses with a low level of knowledge of HIV transmission had negative attitudes towards HIV-positive patients (Martin and Bedimo, 2000).

As reported in Orner (2007) and Ramanzekani, (2004), knowledge about the HIV and AIDS, including mode of transmission, management and care of the patients, is a determinant factor for quality of care rendered by the nurses.

5.3. Attitude:

Attitude in this study is described as an emotional, cognitive and behavioral response that expresses a positive or negative disposition of the professional nurses of Libode District Health Services towards caring for HIV positive patients.

The majority of professional nurses at the Libode District Health Services demonstrate positive attitudes towards HIV and AIDS patients as their responses show that they have a positive disposition towards the patients. For example, they favour admission of HIV positive patients in hospital and disagree with statements which imply that the patients are responsible for their illness. The majority of professional nurses who have a positive disposition are females, possess senior qualifications in the form of diplomas and degrees, have extensive experience in the profession.

The minority of professional nurses at the Libode District Health Services are negative towards HIV positive patients, as they agree with all the statements related to a negative disposition towards the patients. These are to a greater extent, males, with fewer years of experience, have other qualifications lower than a degree or diploma. This group blames the patients as being responsible for their illness, and believes that the patients deserve punishment for their illness. They also refuse to care for these patients; and are not willing to assist the patients during an operation and are not willing to deliver HIV positive patients' babies. They also believe that such patients should be nursed separately. They themselves prefer not to care for such patients; do not want these patients to be admitted in hospital and also believe that such patients should be isolated.

Such nurses have a potential to compromise the quality of care rendered to the patients as they are not in favour of caring for them. Negative attitudes have a potential to contribute towards the spread of the disease as the patients might fear disclosure, avoiding exposing themselves to negative attitudes of the nurses.

With regard to the issue of negative attitudes amongst professional nurses of Libode District Health Services, a similar scenario is reported in a study conducted in India on attitudes and willingness to care for HIV positive patients. It was found that a lack of knowledge of HIV transmission and fear of contracting HIV in the workplace led to HIV-positive patients being neglected by health workers (Fusilier, 2001:151-152).

HIV- positive patients need to be treated by knowledgeable health professionals. The HIV and AIDS disease is a phenomenon that is dynamic in its nature, more especially in its mutation and transmission patterns, and this is compounded by the absence of a cure.

It has also been found that the professional nurses of Libode District Health Services who are younger and those who have senior qualifications are more knowledgeable, a point to consider in terms of recruitment and employment of younger nurses and also in terms of exposing all the nurses, especially the older ones, to ongoing training on HIV and AIDS to ensure that the nursing care that they render is knowledge based and with a positive impact on their caring attitudes towards the patients. These nurses need to engage in post graduate studies to increase their level of knowledge. It is necessary that these nurses should adopt a positive, empathetic attitude towards the patients.

On negative attitudes towards HIV positive patients, Janice, (2009), reported that nurses resented taking care of the HIV positive patients and thus compromised the quality of care rendered to the patients.

A UNAIDS (2008), report on the global AIDS epidemic, shows that in health settings, people living with HIV experience stigma and discrimination, such as, being refused

medicines or access to facilities and receiving treatment without consent and lack of confidentiality. Such responses are fueled by ignorance of HIV transmission routes among doctors, nurses and hospital staff. Denying patients care and treatment is associated with the violation of the patients' rights and is a reflection of inaccessibility of health services to the patients, and thus the poor quality of healthcare.

The HIV and AIDS disease is a phenomenon that is dynamic in its nature, more especially in its mutation and transmission patterns, and this is compounded by the absence of a cure. Although these nurses are knowledgeable, their level of knowledge needs to be increased to extremely high levels, more especially when one considers the fact that nurses are in the majority of health professionals who interact directly with the patients on a daily basis.

5.4. Recommendations

The results of this study could be used to guide the identification and development of strategies to improve the quality of care for patients who are HIV positive, by focusing on ensuring that the professional nurses are extremely knowledgeable about HIV and AIDS with a potential to demonstrate extremely positive attitudes towards the patients.

5.4.1. In the clinical setting

There is a need for structured information sessions amongst the professional nurses of Libode District Health Services in the Eastern Cape Province, with special focus on getting them to be more knowledgeable about HIV and AIDS in relation to, amongst others, the items referred to in the questionnaire (Appendix 1) of this study and also promoting positive attitudes towards the patients. These sessions could be linked to

relevant legislative prescripts, for example, the Nurses' Pledge of Service; the Bill of Rights of South Africa; the Health Charter on Patients' Rights.

Adhering to these recommendations may assist in addressing the significance of this study, which is the promotion of effective and efficient nursing care towards HIV and AIDS patients.

5.4.2. Nursing education

The results of this study on knowledge indicate that some professional nurses lack knowledge about HIV transmission routes. In the absence of a cure for HIV and AIDS, increasing the level of knowledge of theses nurses, about the latest developments, practices, and behaviors related to the disease, could be associated with a better understanding, prevention, and management of the disease, as well as a better control of negative emotions and their related negative implications. Strategies need to be devised to empower nurses with knowledge and skills on all aspects of HIV and AIDS.

The recommendation for the need to make nurses extremely knowledgeable about HIV and AIDS has been identified in literature. For example, with regard to training of healthcare professionals, Aghamolaei (2008), who studied attitudes of health workers towards HIV and AIDS patients in Band Abbar in Iran, found that men of above forty years of age and more, who had been trained in HIV and AIDS, had more favorable attitudes towards HIV- positive patients.

Ihorea n (2009) reported that increasing the levels of knowledge of nurses does have a positive influence on the nature of attitudes of professional nurses and better quality care of the patients, Aghamolaei, (2008); (Nakhae, 2002); (Tavoosi, 2000)

and (Laschinger and Goldberg, 2000), also reported that healthcare professionals who had been trained in HIV and AIDS tend to have more favorable attitudes towards the patients,

The literature is in support of the recommendation in this study that professional nurses at Libode District Health services need to be equipped with knowledge about the transmission of, as well as the management of HIV and AIDS patients as people with lower knowledge levels display negative attitudes towards HIV- infected individuals,

Goldberg and Tarcher, (2003) on training reported that it should include information on the fact that patients need to be allowed to make decisions about their medical treatment, not to be forced to have an HIV test, and not to be refused health and medical treatment because of their positive status.

Various strategies have been adopted to increase the level of knowledge of nurses, for example, through formal training, television, the press, audio and awareness programmes. Other forums for creating awareness are formal institutional education for example, at schools and in churches (O'Toole, 2007).

5.4.3. Research

The study may need to be replicated using a larger responsive sample and increasing the number of items in the questionnaire, as a means of increasing the reliability of the scales. The results and recommendations presented in the study, need to be acted on through a series of research.

5.5. Limitations of the study

The limitation of this study is that the study focused only at the professional nurses at Libode District Health Services and therefore cannot be generalized to nurses in the rest of the Eastern Cape and elsewhere.

5.6. Dissemination of the results

The results of this study will be disseminated through publications in scientific refereed journals and through presentations at conferences. Copies of this research will be distributed to the University of Fort Hare Library and to the management of the Libode District Health Services.

5.7. Conclusion

The findings in this research shows that although the majority of professional nurses at the Libode District Health Services are knowledgeable about HIV transmission and have positive attitudes towards HIV and AIDS patients, there is a minority that lacks knowledge and has negative attitudes towards the HIV-positive patients.

LIST OF REFERENCES

Aiseen, A.O.and Shobole, M.O. (2005)Health Care Workers knowledge on HIV and AIDS ,Universal Precautions and attitudes towards PLWHA, Bennin, Nigeria. Journal of Clinical Practice , 8(2)74-83.

Angleton, P., Wood, K. and Malcom, A. 2005. HIV-Related Stigma, Discrimination and Human Rights Violation. Journal of Social Science and Medicine 57 (2) 13-24.

Aghamolaei, T. 2008. Attitudes of health care providers towards patients with HIV/AIDS in Banda Abbas. Archives of Iranian Medicine 1 (23)298-301.

Babbie, E (2001): The practice of social research, 9th edition. United States: Wadsworth.

Bartlet, J. E. and Kortlik, J. 2001. Organizational research: Determining appropriate sample size for survey research: Information Technology, Learning and Performance Journal, 19 (1) 43-50.

Bedimo, L.2000. Strategies to prevent HIV in the United States : Institute of Medicine Journal , 12(1)22

Breier, M. Wildschut, A. and Mgqolozana, T. 2009. Nursing in a new era – Working with HIV/AIDS and TB patients: Nursing in a New Era, The Profession and Education of Nurses in South Africa. HSRC Press, Cape Town.

Brink, H 2002, Fundamentals of research methodology for health professionals (5th edition) South Africa: Juta and Company L.T.D. Landsdowne.

Burkhard,M.A00.and Nathaniel A.K. 2002.Ethics and issues in Contemporary Nursing (2nd edition) Delma Thomas Publishers.

Burlew, A.K. 2007. Knowledge about HIV transmission amongst African American men and women: American Nursing Journal: 101(2): 1133-1140.

Burns, N. and Grove, S.K. 2009. The practice of nursing research: Appraisals, synthesis and generation of evidence (6th edition). Philadelphia: W.B.Company. Saunders Publishers.

Bradshaw, D ; Nannan, N; Grunewald, P; Joubert, J; Laubcher, R; Nojilana, B; Norman , R; Pieterse ,D and Schneider: Provincial Mortality in South Africa-Priority-Setting for now and benchmark in future. South African Medical Journal, July 2005, 95(7): 496.Cambridge University 2003: Cambridge Advanced Learners Dictionary. United Kingdom: Cambridge University Press.

Christopher, E., Daley, D., Armstrong, R. and Gupter, P. 2004. Preventing local transmission of Tuberculosis in hospital. Journal of Primary Health Care 29 (2): 879-905.

de Vos, A.S. 1998. Research at grassroots. Pretoria: Van Schaik Publishers.

Dias S, Matos M, Goncalves A. AIDS related stigma and attitudes towards AIDS-infected people among adolescents. AIDS Care, 2006 (18): 208

District Health Information System (DHIS). 2008.

Fusilier, A. 2001. Health care workers AIDS attitudes and willingness to provide care. Journal of Health Human Service Administration 20 (4) 151-154.

Gifford, S. 2005. HIV-related knowledge, attitudes and risk perceptions amongst nurses and doctors in rural India. Journal of Australian International School of Population Health 2 (4):19-31.

Goldberg, D.J. and Tarcher, P. J. 2003. HIV and AIDS resource manual (2nd edition) Pretoria: Van Schaik Publishers.

Gorard, S. 20003. Quantitative methods in Social Science. New York: Continuum.

Hall, A.(2005) Defining Knowledge, the current state of Nursing. Swansea University .Journal of Nursing Education 101(48)

Hubbly, J. 2002. The AIDS handbook: A guide to prevention of AIDS and HIV (3rd edition) United Kingdom. Leeds Metropolitan University Printers.

Janice, F. 2009. HIV/AIDS, What it is, and its spread: Coverage of AIDS 2010: The XVIII International AIDS Conference. Vienna.

Joubert, L. and Erlich, E. 2007. Epidemiological research in South Africa (2nd edition). Cape Town, South Africa: Sage Publishers.

Klopper, H. 2008. Health Science Research: A study guide for NSRT 121 ET Faculty of Health Science. Potchefstroom: North West University.

Kumar, H. (2005) Health research methods for beginners (3rd edition). Cape Town. Juta and Company.

Laschinger, H. and Goldberg, D, 2000. Attitudes of practising nurses as predictors of intended care and behaviour with people who are HIV positive: Research Journal in Nursing and Health 16(4) 441-444.

Leuwenstone, G. (2007) Affect regulation and affective focusing , Handbook of Emotion Regulation, New York, McMillan Publishers.

Link, R .and Charap N. 2009. AIDS related knowledge, attitudes and precautionary behaviours among emergency Medical Professionals: Public Health Report, September-October 105 (5) 496-504.

Malhotra, N.K.1999 Marketing Research: An applied orientation (2nd edition) .Harlow Eng.: Financial Times / Prentice Hall.

Martin, H. and Bedimo, L. 2000. Nurses attitudes towards patients with AIDS: Journal of Advanced Nursing 118(2) 16-21.

Maya, A. 2000. Patients' rights a charter does not make: The Patients' Network 5 (2)5-10.

McIntyre, L J.(2006) : Need to know: social science research methods. America: Mc Graw Hill.

Mouton, J. 2001: How to succeed in your Master's and Doctoral Studies: A South African Guide and Resource book. Pretoria: J.L.Van Schaik .

Nakhae, F.H. 2002. Knowledge of HIV /AIDS and its prevention in Kerman: American Journal of Nursing 13 (6) 450-453.

Nyblade, H. 2009. Combating HIV stigma in health Settings: American Journal of Public Health 2 (4) 56-57.

Orner, P.J. 2007. Rights and reproductive choice of HIV positive patients: Journal of World Bioethics 1 (2) 11-17.

O, Toole, M. 2007. What do we do about culture? Engaging culture in development: Journal of Advanced Nursing 2(2)45.

Oyeyemi, A. 2006. Caring for HIV patients. Knowledge and attitudes and global level: Journal of Advanced Nursing 53(2) 45.

Pallant, J. 2001. SPSS survival. (Second Edition). New York: Two Penn Plaza.

Polit, D.F. and Beck, C.T. 2004. Essentials of nursing research: Appraisals and evidence of nursing practice (5th edition) Philadelphia: Lippincott Company.

Polit, D. and Hungler, F. 2009. Nursing research methods, appraisals and utilisation (5th edition) Philadelphia. J.P. Lippincott Company.

Polit, D. F. 1996. Statistics and data analysis for nursing research. (Second Edition). New York, Human analysis Inc.

Ramanzekani, A. 2004. Evaluation of students' knowledge and attitudes towards HIV/AIDS in Terhan High School Students, Paper presented at SIAMEO, UNESCO Education Congress 27-29 May 2004, and Bangkok, Thailand.

Rehle, T. and Shisana, O. 2003. National HIV meeting of the Australian Association of Research Education, May 2004 in Brisbane, Australia.

Sharman, A. 2009. Nurses willingness to care for AIDS patients, spiritually, social support, and death and anxiety, Journal of Nursing Scholarship 28 (30) 205-256.

South African Nursing Association 1994: Terminology 50 years. 1944- 1994. Pretoria : Envelope supply and Printing Company.

South African Constitution No. 108 of 1996.

Steele, A. and Melby, V. 2000. Knowledge and attitudes about AIDS: Journal of Advanced Nursing 22(3) 879-889.

Tavossi, A. 2000. Knowledge and attitudes about HIV/AIDS amongst Iranian Students: B.M.C Public Journal 4(1)17.

Terraso, I. and Highriter, M. (2006). HIV and the intentions of nurses: Journal of Public Health Nursing 11(2)273-280.

Ter blanche, M., Durrheim, K. and Painter.D.(2006). Research in practice (2nd edition) South Africa: UCT Press.

The South African National Action Plan for the Promotion & Protection of Human Rights, December, 1998.

UNAIDS, (2008). Reports on HIV / AIDS related stigmatisation, discrimination and denial by HIV infected patients.

WHO (2008). Improving Estimates, Reports on Global HIV/AIDS epidemic in 2004.

Terr Blanche, M., Durkheim, K. and Painter.D. (2006). Research in practice (2nd edition) South Africa: UCT Press.

The South African National Action Plan for the Promotion & Protection of Human Rights, December, 1998.

UNAIDS, (2008). Reports on HIV / AIDS related stigmatisation, discrimination and denial by HIV infected patients.

Van Rensberg, H. C.2004: Health and Health care in South Africa. Pretoria Van Schaik.

WHO (2008). Improving Estimates, Reports on Global HIV/AIDS epidemic in 2004.

Appendix 1: Questionnaire

QUESTIONNAIRE

INSTRUCTIONS: Write the appropriate answer when necessary. Please mark with (X) in the appropriate box. Explain where a column for explanation has been provided.

SECTION A

PERSONAL DETAILS

HOW OLD ARE YOU? .....

GENDER: .....

QUALIFICATIONS:

Diploma	
Degree	
Others - specify	

YEARS OF EXPERIENCE IN THE NURSING PROFESSION:.....

INSTRUCTIONS: For each of the following statements please indicate your agreement or disagreement by marking with an (x) in the appropriate space. Please respond to all questions. There is no right or wrong answer. Please use the following scale:

1. SD: Strongly disagree
2. D : Disagree
3. N : Neither agree nor disagree
4. A : Agree
5. SA : Strongly Agree

KNOWLEDGE OF HIV TRANSMISSION:

Statements	Strongly Disagree	Disagree	Neither Agree nor disagree	Agree	Strongly agree
Sexual intercourse can spread HIV and AIDS	1	2	3	4	5
Sharing cups and spoons can spread HIV and AIDS	1	2	3	4	5
HIV and AIDS can be spread from an infected woman to her child during pregnancy and birth	1	2	3	4	5
Contact with urine can spread HIV and AIDS	1	2	3	4	5
Mosquitoes can spread HIV and AIDS	1	2	3	4	5
HIV and AIDS can spread from an infected woman to her child during breastfeeding	1	2	3	4	5
Coughing and sneezing can spread HIV and AIDS	1	2	3	4	5
Blood transfusion can spread HIV/ AIDS	1	2	3	4	5

ATTITUDES TOWARDS PATIENTS WITH HIV

Statements	Strongly Disagree	Disagree	Neither Agree nor disagree	Agree	Strongly agree
Patients with HIV and AIDS are responsible for their illness.	1	2	3	4	5
Patients with HIV and AIDS deserve punishment for their risk behaviors	1	2	3	4	5
I feel worried about caring for patients with HIV/ AIDS	1	2	3	4	5
Doctors and nurses should be allowed to refuse to care for HIV and AIDS patients	1	2	3	4	5
I am willing to assist with an operation on HIV infected patients	1	2	3	4	5
I am willing to assist with the delivery of a baby born to a mother who is HIV infected	1	2	3	4	5
Patients with HIV and need to be nursed separately from other patients	1	2	3	4	5
I would prefer not to care for HIV and AIDS patients	1	2	3	4	5

The beds of HIV and AIDS patients should be marked	1	2	3	4	5
Relatives/ Sexual partners of patients who are HIV infected should be notified of the patient's status even without his or her consent	1	2	3	4	5
Patients who are HIV positive should not be admitted to hospitals	1	2	3	4	5
Patients with HIV and AIDS should be isolated from the society	1	2	3	4	5

Thank you for participation and for responding to the questions.

Questionnaire adapted from Link and Charap, as published in the Archives of Iranian Medicine, (Vol. 12, No 3, May 2009).

Appendix 2: University of Fort Hare Ethics Clearance Certificate

OFFICE OF THE DEPUTY VICE-CHANCELLOR:

ACADEMIC AFFAIRS AND RESEARCH

Private Bag X1314, Alice 5700

Tel: 04060 22403

Fax: 0866282944

University of Fort Hare
Together in Excellence

Application for clearance from the University of Fort Hare's Ethics Committee

Topic: Knowledge and attitudes of professional nurses towards HIV and AIDS patients at the Libode District Health Services in the Eastern Cape Province.

Chief Researcher: Grace Nontutuzelo Gedu

Supervisor/co-supervisor: Dr N Tshotsho / Mrs NIN Magadla

Date of application: 29 May 2009

Having consulted the Dean of Research, I hereby grant permission to conduct the research.

Professor J R Midgley

Deputy Vice-Chancellor: Chairperson of the interim Ethics Committee

Eastern Cape Department of Health

Enquiries:	Zonwabele Merile	Tel No:	040 608 0830
Date:	25th June 2009	Fax No:	043 642 1409
e-mail address:	zonwabele.merile@impilo.ecprov.gov.za		

Dear Ms NG Gedu

Re: Knowledge and attitudes of professional nurses towards patients who are HIV positive in relation to violation of their rights

The Department of Health would like to inform you that your application for conducting a research on the abovementioned topic has been approved based on the following conditions:

1. During your study, you will follow the submitted protocol with ethical approval and can only deviate from it after having a written approval from the Department of Health in writing.
2. You are advised to ensure observe and respect the rights and culture of your research participants and maintain confidentiality of their identities and shall remove or not collect any information which can be used to link the participants. You will not impose or force individuals or possible research participants to participate in you study. Research participants have a right to withdraw anytime they want to.
3. The Department of Health expects you to provide a progress on your study every 3 months (from date you received this letter) in writing.
4. At the end of your study, you will be expected to send a full written report with your findings and implementable recommendations to the Epidemiological Research & Surveillance Management. You may be invited to the department to come and present your research findings with your implementable recommendations.
5. Your results on the Eastern Cape will not be presented anywhere unless you have shared them with the Department of Health as indicated above.

Your compliance in this regard will be highly appreciated.

DEPUTY DIRECTOR: EPIDEMIOLOGICAL RESEARCH & SURVEILLANCE MANAGEMENT

PGDP EASTERN CAPE 2004 - 2014

Ikamva eliqaqambileyo!

Appendix 4.

UNIVERSITY OF FORT HARE DEPT.OF NURSING SCIENCES:
EAST LONDON CAMPUS

11-05-2009

THE MANAGER

LIBODE DISTRICT HEALTH SERVICES

P.O. BOX15

LIBODE

REQUEST FOR PERMISSION TO CONDUCT A RESEARCH PROJECT IN YOUR HOSPITAL

Sir / Madam

I, Grace Nontutuzelo Gedu, request your permission to conduct a study in your hospital which is a requirement to for completion of my Masters Degree.

Title of the study: KNOWLEDGE AND ATTITUDES OF PROFESSIONAL NURSES TOWARDS HIV AND AIDS PATIENTS

The study will be of benefit to your institution and the Department of Health as the recommendations that will be made will contribute to the improvement of the delivery of quality health services to the patients.

I, hope that my request will be highly considered.

Yours faithfully

G.N.Gedu.....Supervisors
signature.....

Appendix 5

CONSENT FORM

I, the undersigned, ...confirm that, I was invited to take part in a research project that will take place in my institution .The project will be under the guidance of the Department of Nursing Sciences at the Fort Hare University . It has been explained to me that, the aim of the study is to measure the level of knowledge and attitudes of professional nurses towards HIV and AIDS patients in the Libode District Health services.

I was informed about the use of questionnaires as the tool for getting information for the research. I was assured that confidentiality will maintained at all stages of the research. No information will be given to anyone, and, the information that has been gathered, if it is to be published in scientific journals, or presented at a congress, my name will not be mentioned at any stage.

I, hereby accept participation in the project on voluntary basis.

Signed

at.....Date.....

.....

Signature of the

participant.....

Appendix 6

DEPARTMENT OF NURSING SCIENCES

UNIVERSITY OF FORT HARE

EAST LONDON

11-05-2010

THE PARTICIPANT

LIBODE DISTRICT HEALTH SERVICES

P.O.BOX 15

LIBODE

REQUEST FOR YOUR PERMISSION TO PARTICIPATE IN A RESEARCH STUDY

Sir / Madam

I, Grace Nontutuzelo Gedu request your permission to take part in a research study that will be conducted in your hospital. The title of the study is: KNOWLEDGE AND ATTITUDES OF PROFESSIONAL NURSES TOWARDS HIV AND AIDS PATIENTS

Questionnaires will be used to collect the data. You will be required to answer the questionnaire in your spare time. You need not write your name in the questionnaire. When data has been collected, no information will be given to anyone without your consent. If the information gathered is published in scientific journals, or presented at a congress, your name will not be mentioned at any stage.

Participation is voluntary and you are free to withdraw from the study anytime you feel uncomfortable about the study. If you feel that you have been unfairly treated you are free to contact the researcher and her supervisor in the numbers that have been provided, 0767561436 and 0725616647and the university's research ethics committee and the number will be provided on request.

Hoping that my request will be highly considered.

Yours faithfully

Grace Nontutuzelo Gedu.

Signature.....

Appendix 7

Editor's report

Editor's report:
amoodly@wsu.ac.za
0822021740

PO Box 1003
Gonubie
5256

18 March 2011

To whom it may concern

EDITING OF MANUSCRIPT

This is to confirm that I, Adele Leah Moodly, have edited the manuscript:

AN INVESTIGATION OF KNOWLEDGE AND ATTITUDES OF PROFESSIONAL NURSES AT ST.BARNABAS HOSPITAL IN THE EASTERN CAPE PROVINCE, TOWARDS PATIENTS WHO ARE HIV POSITIVE

GRACE NONTUTUZELO GEDU

I have made recommendations for implementation in terms of the editing.

Yours faithfully

Dr Adele Moodly