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THE JOURNEY OF A THOUSAND MILES BEGINS WITH ONE STEP

The experiences of nurses in Sub-Saharan Africa caring for HIV/AIDS patients: A literature review

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Titel (Svensk):	En resa på tusen mil börjar med ett steg. Sjuksköterskors erfarenheter av att vårda patienter med HIV/AIDS i Afrika söder om Sahara. En litteraturöversikt.
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Summary

Introduction: Even though the latest United Nations Millennium Development goal report shows a decrease in Aids related deaths in Sub-Saharan Africa (SSA), the number of newly infected HIV cases is still increasing. Since nurses have more contact with people living with HIV/AIDS as compared to other caregivers, their experiences need to be acknowledged. **Aim**: This paper is a literature review that explores the experiences of nurses in Sub-Saharan Africa caring for HIV/AIDS patients. **Method**: A literature review of qualitative, quantitative, and mixed method papers was conducted. Searches in Cinahl and Pubmed were performed and resulted in 12 papers. Three themes and six sub-themes were extracted from the papers.**Results**: Nurses in SSA experienced numerous challenges like shortageof human and material resources andinadequate knowledge and skills on HIV/AIDS when working with people living with HIV/AIDS. Stigma and discrimination were other challenges. These challenges led to different emotions like fear of contagion and a feeling of frustration and stress. Nevertheless, nurses found sources to motivation like compassion for patients, treating them with respect and they drew courage from miraculous recoveries made by patients after the introduction of antiretroviral therapy.**Conclusion**: Increased knowledge through specific AIDS training program for the nurses and better conditions concerning resources and knowledge can increase the job satisfaction of nurses working with HIV patients.

Acknowledgement

The authors of the study originate from Sub-Saharan Africa and have each witnessed the ravaging effects of HIV/AIDS among friends and family members. That is the reason why they decided to write their thesis on the topic.

Special thanks to our thesis supervisor who gave us all the support we needed. Our families here and back home are not left behind. We are what we are today because of their continuous love, encouragement and support.

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1. INTRODUCTION

The fight against the human immune virus (HIV) and the acquired immune deficiency syndrome (AIDS) was one of the eight United Nations Organization's (UN) Millennium Development Goals (MDG) that was established following the millennium summit in the year 2000 (UN, 2014). The Joint United Nations Program for the fight against HIV/AIDS (UNAIDS) was established in 1994 to lead, strengthen, support and expand the response to HIV /AIDS (UNAIDS, 2013).

The latest United Nations' MDG report on HIV/AIDS shows that more than two-thirds of HIV infected people live in Sub- Saharan Africa (SSA), home to the poorest countries in the world (UN, 2014). SSA can be defined as the part of Africa (with the exception of Sudan), that lies south of the Saharan desert as shown in Figure 1.Majority of its population has been affected in one way or the other by the epidemic. The same report shows a decrease in AIDS-related deaths in SSA though the total number of people living with the virus is still on the rise.

Health systems in SSA continue to struggle to meet up with the basic standard of care required by the ever growing population. The spread of HIV/AIDS in SSA made health care crisis receive attention and supported the assumption that there exist a relationship between health and economic development. Many barriers to effective care like (insufficient access, acute shortage of health workers, poverty, weak management practices, mind-sets and behaviours) have been cited as some of the factors.

SSA suffers 25% of the world's HIV/AIDS disease burden but has only 1.3% of the world's healthcare workforce (WHO, 2014). Klopper (2007) points out that out of 46 countries in Africa, only six have a healthcare workforce of more than 2.5 workers to 1000 people. This is very minimal when compared to 18.9 workers per 1000 people in Europe(WHO, 2014). HIV has thus put a serious strain on already limited hospital resources.

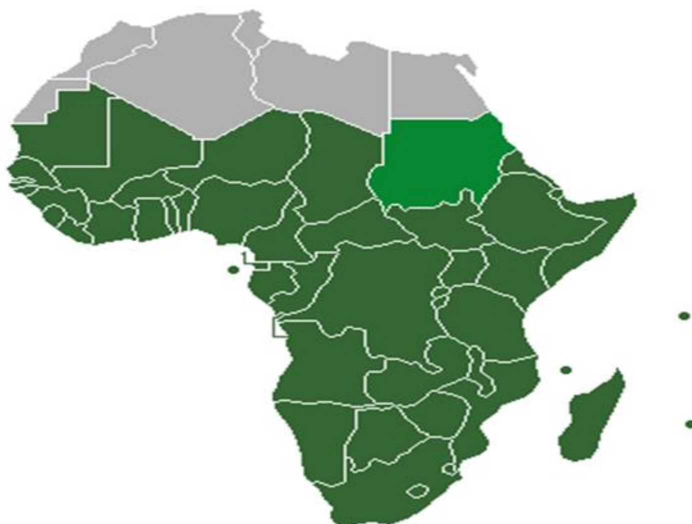

Figure 1. Dark and lighter green: Definition of "Sub-Saharan Africa" as used in the statistics of UN institutions (Source: http://en.wikipedia.org/wiki/United_Nations)

Nurses and other community care givers are always on the forefront as far as the fight against HIV/AIDS is concerned in SSA because they have prolonged and regular contact with patients. Most studies on HIV/AIDS in SSA have focused mostly on the social and medical aspects of the pandemic. Very little work has been done to study the perception and experiences of nurses who care for People Living with HIV/AIDS (PLWHA) in thesecountries.

2.1 History of HIV/AIDS

Over 30 years have gone yet the origin of HIV is still a highly debated topic. The first recognized cases of HIV/AIDS were in the early 1980s in the USA among homosexuals. Most doctors at the time thought it had something to do with their sexual inclination (Pratt, 2003). That same year, the first cases of the disease were diagnosed among heterosexuals, most of them from the Haiti. In July 1981 the killer disease resulting from HIV virus was called the Acquired Immunodeficiency Syndrome" and the year after it became clear which virus caused AIDS (Pratt, 2003).

2.2 The Human Immunodeficiency Virus (HIV)

AIDS is caused by the HIV which researchers say originates from non-human primates (Pratt, 2003). Two strains of the virus exist: HIV-1 and HIV-2 with the former being more virulent, easy to transmit and the majority of HIV infected people carry this strain of the virus. The virus attacks the immune system of human beings by attaching itself to a protein on the surface of a cell called the cluster of differentiation cell (CD4- receptor). CD4 receptors in turn bind to the surface of a type of white blood cell called T- lymphocyte cells (T-cells) (Swedish public health agency, 2014). T-cells play a vital role in enhancing the body's immune system thus helping the body to fight pathogens. After invading the host's T-cells, the virus attaches itself in the nucleus of the host cell and secretes its genetic material, the ribonucleic acid (RNA) into the host cell's nucleus. This RNA is later converted to deoxyribonucleic acid (DNA) which modifies the function of the host T-lymphocyte cells (T-cells). The newly modified T-cells replicate at a very fast rate and produce over 10 billion new HIV viruses per day. This leads to an increased production of new T-cells and a corresponding increase in the viral count. At a certain stage, the body becomes unable to produce uninfected cells and hence becomes infected with the new virus (Swedish public health agency, 2014). An HIV infected person is said to be suffering from AIDS when the number of T-cells is under 200 (Swedish public health agency, 2014; RFSU, 2012) and this is followed by the weakening of the person's immune system and hence easy for them to suffer from so called 'opportunistic infections'.

2.3 Prevalence

According to the WHO (2014), almost 78 million people have been infected with the HIV virus while about 39 million people have died from it. The same report shows that globally, between 33.2–37.2 million people were living with HIV at the end of 2013. An estimated 0.8% of adults aged 15–49 years worldwide are living with HIV, although the burden of the epidemic continues to vary considerably between countries and regions (WHO, 2014). SSA remains most severely affected, with nearly 1 in every 20 adults living with HIV and accounting for nearly 71% of the people living with HIV worldwide. In Sweden, 400-500 new cases of HIV infection are reported every year (Swedish public health agency, 2014; RFSU 2012; Hiv-Sverige 2015). According to the Swedish public health agency, an estimated 6.500 people are living with HIV in Sweden and over half of them were infected before they migrated to Sweden (Swedish public health agency, 2014).

2.4 Transmission

HIV can be transmitted from an infected person to another through any of the following ways:

Unprotected sexual intercourse: HIV can infect the mucous membranes directly during both anal and vaginal sexual intercourse. The virus can also enter through cuts and sores caused during intercourse (Pratt, 2003). Anal sex is classified as the highest risk sexual behavior while vaginal sex is the second highest risks sexual behavior. The virus can also be transmitted during oral sex (mouth-penis, mouth-vagina) through the gums, throats and sensitive membranes lining the mouth. The rate of HIV transmission during oral sex is lower than that transmitted through vaginal and anal intercourse (Swedish public health agency, 2014).

Direct blood contact: It is easy for the virus to pass from a person's blood stream to another through sharing infected injection needles, syringes, or other equipment (practice common among drug addicts), accidents in healthcare settings; and through transfusion of infected blood (RFSU, 2012; Hiv-Sverige, 2015).

Mother to child transmission: HIV can be transmitted from mother to child during birth or through breast milk after delivery.

Saliva, tears, feces, urine and sweat do not contain the virus and thus the disease cannot be spread through them. Similarly, HIV is not spread by using same toilet seats, by hugging, shaking hands or sharing dishes with an infected person. Neither can the virus be spread through air, water or insects such as mosquitoes or ticks. It is easiest to transmit the disease the first weeks after one gets infected with the virus and when the patient suffers from AIDS (Swedish public health agency, 2014; RFSU, 2012). HIV infected patients are obliged by the Swedish law to report that they carry the virus to health authorities (SFS, 2004:168) and should in no way voluntarily transmit the disease to others.

2.5 Signs and symptoms

Two to four weeks after transmission, most people always experience flu like symptoms, like sore throats, fatigue, headache, swollen glands, fever, and muscle and joint pains. The above mentioned symptoms are common to many other illnesses. Some people may be infected with the virus but not show any symptoms at all for about 10 years. Pneumonia, rapid weight loss, diarrhea and swelling of the lymph glands, recurring fevers, red brown patches under the tongue, skin, eyelids and nose and depression are symptoms common when a patient is suffering from AIDS (Pratt, 2003).The only way to know for sure if one is carrying the virus is by doing a blood test that detects HIV antibodies and antigens in the blood sample (Pratt, 2003).

2.6 Treatment

There is no cure for the infection. Caregivers who might accidentally get in contact with the virus while giving care to PLWHA can get prophylactic treatment within 36 hours (Swedish public health agency, 2014). HIV infected patients can be put on Highly Active Antiretroviral (ARV) therapy which is a combination of three different medications that help to stop the replication of the virus and strengthens the immune system (Pratt,2003). Common side effects of ARV are diarrhea, tiredness, nightmares, sleeping disorder, profuse sweating, and liver and heart problems. Nowadays, most people living with HIV/AIDS do not progress to AIDS because of ARV therapy. The Swedish reference group for antiviral therapy and the Swedish medical products agency recommends that after confirmed diagnosis of HIV infection, the patient should immediately be put on ARV if they are willing to start treatment (Swedish public health agency, 2014). Once on medication, the patient has to continue taking the prescribed dose every day; else the virus can become resistant and lead to AIDS.

2.7. Conditions for HIV/AIDS care in SSA

Many barriers like poverty, illiteracy, lack of knowledge, poor access to healthcare and shortage of condoms have been mentioned in past research as the major barriers faced in the fight against the AIDS epidemic (Ehlers, 2006). An HIV diagnosis can be followed by a feeling of being outcast from friends and families, (Ehlers, 2006). This is a common issue especially in SSA where society still has negative attitudes towards the disease and towards the infected person. This can be due to local beliefs and traditions. HIV and AIDS have attracted a stigmatization that is overwhelming. This is due to many factors such as a lack of understanding of the disease, lack of access to treatment, the media, knowing that AIDS is incurable, and prejudices brought on by cultures beliefs.

2.8 Competence and role of nurses

Competence refers to specific capabilities such as leadership which in turn is made up of attitudes, knowledge and skills that are needed to accomplish a task. In 1953, the International Council of Nurses (ICN) came up with the first code of ethics governing the nursing profession the world over (ICN, 2012). Excerpt from ICN’s Code of Ethics is translated by the Swedish Nursing Council, (Svensk Sjuksköterskeförening) and is the backbone of the

nursing profession. It is the National Board of Health and Welfare's (Socialstyrelsen) intention that this competence description and guidelines should be followed by licensed nurses in order to provide good and safe care to the patient. According to the ICN Code of Ethics, nurses have four basic areas of responsibility: to promote health, to prevent disease, to restore health and to relieve suffering (ICN, 2005).

2.8.1 Communication

The area of health promotion and disease prevention in relation to HIV/AIDS concerns preventing people from being infected with the virus. In prevention of HIV/AIDS communication is an important tool for the nurse, which is a process whereby emotions and thoughts are transmitted between individuals (Dahlberg, 2002). The nurse is responsible for improving the patient's physical, mental and social wellbeing. Communication is constantly used in the meeting between the nurse and the patient, and may be both verbal and nonverbal. It is through communication that interpersonal relationships occur which in turn can help the nurse to fulfill his/her duties (National Board of Health and Welfare, 2005).The nurse should have good communication skills with patients, family and colleagues and do this with respect and empathy. Nurses need good communication skills so as to be able to pass information in a way that is understandable to patients. This reduces the risk for misunderstanding which can be detrimental to the quality of care received by patients.

2.8.2 To promote health

The World Health Organization defines the term health promotion as a process of enabling people to increase awareness in order to take control over and improve their health (WHO, 2014). Likewise according to ICN Code of nurses (ICN, 2005), it is crucial for nurses to have the ability to identify and actively prevent health risk and where necessary initiate the justification to changing lifestyle factors, detect and assess the patient's resources. Furthermore, nurses must have the ability to educate and support patients and families, individually or in groups, in order to promote health and prevent illness, counteract the complications associated with disease, care and treatment, prevention of infection and disease transmission. In Sweden it is very common that nurses play an active role in promoting health by delivering quality care to people by also laying emphasis on life changes necessary for the patient to enjoy good health. (Swedish council of nurses, 2007). Promotion of health is very crucial in the war against HIV/Aids in Sub-Saharan Africa. Health promotion can be applied to people who are infected with the virus to prevent them from developing Aids. This is done by providing the patients with the necessary awareness on how the importance of full compliance to ARV therapy, the importance of good nutrition to strengthen the body ward off opportunistic infections and the importance of practicing safe sex and not voluntarily infect others.

2.8.3 Prevention of diseases

The Health Care Act [HSL] (SFS 1982: 763), states that disease prevention should rest on a nurse patient mutual relationship and done in collaboration with the patient. To extend the patient's chances of a good life, disease prevention should be seen as a means to promote the health of patients. Preventive medicine encompasses both prevention of disease and promotion of health. The goal of prevention is to reduce or eliminate specific causes of disease and thereby prevent a specific disease from occurring (Orth-Gomér et Perski, 2008).

2.8.4 Health restoration

By establishing an interpersonal relationship with patients can nurses help individuals to accept their current situation, which is a first step in alleviating their suffering and this in turn can make them accept their diagnosis, learn to live with it and thereby lead in the restoration of health. Travelbee (2007) pointed out that interpersonal relationship is important to be established with the patient to help them find meaning in the situation they find themselves in. Interpersonal relationship is when the patient and the nurse make it past their roles, create closer contact and see each other seriously as unique individuals. The following issues are involved in the creation of such a relationship: first meeting, the emergence of identities, empathy, sympathy and establishment of mutual understanding and contacts. During the first meeting, it is recommended to nurses to look beyond the sickness in order to discover the unique individual in the patient. As the relationship progresses identities become more and more obvious. When the nurse can understand the patient’s experience, she can also feel empathy for the patient which is the third step in the interpersonal relationship. The next step involves nurse sympathy, she becomes involved in the patient's suffering, and compassion arises just like the nurses’ desire to alleviate suffering increases. The result of undergoing these four phases is that a mutual understanding and contact between nurse and patient is formed, where they can share thoughts, attitudes and feelings (Travelbee, 2007). The nurse comes across as a person who the patient can this is turn may lead to restored health through the patient’s active participation and should be an essential part in the care for PLWHA. This is because HIV diagnosis is often followed by denial, rejection of family members and society not leaving our physical and mental illness that might come up.

2.8.5 Relieving suffering

Suffering as a whole is an inevitable part of a human being. All people have at some time in life experienced what suffering means. Suffering is very subjective: the sufferings of one individual can be something else to another person. Suffering is therefore a fully personalized phenomenon that can be caused by several factors but is often linked to illness and the loss of something that the human recognizes as being significant in their lives (Travelbee, 2007). For PLWHA suffering can result in the loss of physical, spiritual or emotional integrity and this is aggravated by the stigmatization of the disease.

An HIV diagnosis and the stigma that follows increases the patient’s suffering. Most of them choose not to come open so far as their status is concerned resulting in isolation and more suffering. Nurses and other care givers in SSA have a special role to play so far as fighting the

spread of HIV is concerned and increasing the quality of life of PLWHA. Most often, the only person who can give support and help relieve suffering to such patients is the care giver since most of them never disclose their status to family members. Nurses are those who are closer to patients and can by so doing gain the patient's trust which in turn is needed to have a good patient relationship with them. Even though HIV has no treatment, through good patient-nurse communication can the nurse gain the patient's trust. This can make the person accept his or diagnosis, confide their problems and sufferings to the nurse who in turn can educate the patient thereby brining hope in their life. Hope in turn can restore both the mental and physical wellbeing of the patient and relieve their suffering. A key tool to have a good patient nurse relationship is communication. A good communication pattern is detrimental to the promotion, maintenance and restoration of the patient's health (Poggenpoel, 1977).

Good communication skill is very important in educating and empowering patients and the community as a whole on HIV/AIDS and its prevention.Patients' involvement in their care is essential in relieving their suffering. Relieving suffering includes using the resources available to create a professional relationship with them using a therapeutic approach while giving them the opportunity to influence the whole process. An interpersonal relationship involves mutual interaction in the encounter between the nurse and patient. This is based on communication and interaction. It is expected that the nurse should provide quality care no matter what disease the patient is suffering from. It has emerged that some nurses demonstrated a clear negative attitude towards PLWHA (Mbanya et al., 2001). This may be related to Dahlberg's (2002) concept of healthcare suffering which can be defined as a suffering that a patient goes through as a result of the care he or she is receiving. It is important for the suffering of a patient to be acknowledged by their caregivers. The patient feels infringed, if their suffering is ignored and the consequence is that the patient may not take part in their own care. The patient's dignity is violated and a sense of humiliation arises. If the patient is not allowed to be involved in their own care can a sense of powerlessness arise, which in turn can lead to health not being restored. This type of suffering should be eliminated and the patient should only feel that the care received from nurses and other care givers gives a feeling of wellbeing (Dahlberg, 2002).

3. RATIONALE FOR THE STUDY

A positive HIV/AIDS diagnosis is always accompanied by extreme physical and mental health problems to individuals who might feel depressed and hence isolate themselves. Poverty, lack of education and the lack of health systems that address the needs of PLWHA coupled with their inaccessibility are factors that can affect the quality of life of such patients. To come up with measures that can improve the quality of life of PLWHA, alleviate suffering, restore health and stop the spread of the virus in SSA, it is important to take into consideration the experiences and views of nurses and other caregivers working with these patients. Can SSA ever succeed in reducing the spread of the virus and reduce Aids related deaths? What are the opinions of nurses who are in the forefront as far as fighting the virus is concerned and what can be done to improve on their working conditions? It is important to

create awareness on how it is to work with PLWHA so as to come up with better policies and working conditions for the nurses.

4. AIM

The aim of this study is to explore the experiences of nurses in SSA who care for PLWHA.

5. METHOD

5.1 Literature search strategy and article selection

A systematic review of papers related to nurse's experiences when caring for PLWHA in SSA was chosen as research method as described in Polit& Beck (2012). This method is appropriate in describing an individual's experience of a situation as it is in this case.

A test search was done by using HIV/AIDS and Africa to get a general idea of progress and the state of research in the field as described in Friberg (2006). The keyword SSA gave no results reason why the search word 'Africa' was used instead. A combination of relevant search words like Nurses, HIV/AIDS, knowledge, Attitudes, challenges, stress, education, Africa and the boolean operator AND were used to conduct searches for articles published between 2000-2015. MeSh was used to get correct translation of relevant Swedish search words into English. Databases Cinahl and Pubmed were used to search for relevant papers. Truncated version of the search words HIV* and nurs* were used to expand the search as described in Friberg (2006) in CINAHL database. With each search, abstracts, introduction, the first few paragraphs and the conclusion of articles that caught our attention were read. Relevant articles were kept aside for further scrutiny. To increase the quality of the research, the number of papers found was narrowed down by adding appropriate search words as described in Friberg (2006). Reference list of selected papers and some past relevant dissertations were examined to identify other relevant papers. Finally relevant reports from institutional websites were downloaded.

5.2 Inclusion criteria

Peer reviewed qualitative, quantitative and mixed method papers that were published in either Swedish or English between 2000-2015 and whose aim was relevant to the purpose of the thesis were chosen. Other inclusion criteria were papers whose participants were adults and of both sexes, papers whose abstracts were available and papers whose setting was in a variety of countries in Africa South of the Sahara.

5.3 Exclusion criteria

Papers dealing with nurses taking care of HIV positive infected children who are less than 18 years old were not included in the study. Similarly were papers with nursing students as participants also excluded from the study because of their lack of experience in caring for PLWHA.

5.4 Quality review

Polit andBeck's (2012) guideline for critiquing studies and evaluating the evidence was used to determine the quality of the papers prior to their inclusion in the literature review.

Appendix 1 is a guide to an overall critique of a quantitative and qualitative research paper by Polit and Beck (2012), appendix 2 is a summary of the search process while appendix 3 is a summary of the content of the papers selected as recommended by Politand Beck (2012).

5.5 Data analysis

The fourteen selected papers (5 quantitative, 8 qualitative and one article with mixed method) were carefully read and summarized by the authors. Content analysis as described in Friberg (2006) and Forsberg &Wengström (2008) was used to analyze the qualitative articles and the article with mixed method. Friberg describes data analysis as a process whereby data is broken down into simpler more manageable units which in turn are used to come up with new ideas. The papers were entirely read a couple of times to get a general understanding of what they were all about. The result section of the papers was carefully read and different colors were used to highlight sentences and paragraphs that were relevant to the aim of the thesis.

Three themes were identified and variations, similarities and differences in the themes were discussed and resulted in the formation of six sub-themes as shown in Table 1.

5.6 Ethical issues

Researchers are compelled to adhere to ethical norms in order to promote the aim of the research and promote values that are essential to collaborative work as pointed out in Polit et Beck, (2012). Authors of the selected articles had received ethical approval and permission from the directors of the hospitals where the researches were conducted. Furthermore, permission was obtained from the research and regional ethics committee of the various research institutes in which the authors worked. Participants in each of the articles got both oral and written information about the study and each signed a consent form. Anonymity and confidentiality was assured to the participants, in order to encourage trust in the researchers.

6. RESULTS

The experiences of nurses in SSA who care for PLWHA concerned the challenges the nurses faced and the thereby following emotions, but also the sources of motivation they experienced as showed in Table 1.

Table 1: Results of data analysis

Themes	Subthemes
Challenges faced by healthcare providers	Shortage of human and material resources Inadequate knowledge and skills on HIV/AIDS Stigma and discrimination
Arising emotions due to the barriers	Feeling of frustration and stress Fear of contagion
Sources of motivation for healthcare workers	Personal experiences and miraculous recoveries

6.1 Challenges

Most of the articles identified challenges faced by the nurses caring for PLWHA and this had different effects both on the quality of work, patient security and on the moral of the nurses.

6.1.1 Shortage of human and material resources

Resources are human and material assets that can be used to facilitate the achievement of a particular goal. The lack of resources was one of the main challenges faced by nurses who cared for PLWHA (Campbell et al, 2010; Smit, 2005; Mavhandu-Mudzusi et al., 2007). Most wards were overcrowded because the hospitals had a policy of not turning down patients with some of the patients sleeping on floors in between beds (Fournier et al. 2007; Smit, 2005). Even basic items like medicines, ARV, oxygen tanks, disinfectants, gloves, plastic aprons, goggles always ran out and even when they were available were always of poor quality and nursing units with 25 beds would admit between 80-100 patients (Harrowing & Mill, 2010). A similar conclusion was cited by Campbell et al., (2010) whereby nurses expressed extreme frustration due to the increasing number of HIV/AIDS patients they received in combination with inadequate resources needed in providing the services and care the patients needed.

The deteriorating states of hospitals, lack of basic equipment and medical supplies, and the shortage of staff led to moral distress and fatigue since the nurses had to take decisions that haunted them for the rest of their lives (Harrowing & Mill, 2010). Despite these challenges the nurses didn't quit their job because they needed the income to support their families. Instead, they came up with coping strategies like transferring care to patients and improvising whenever they had shortages of material and personnel. Transferring care to family members by teaching them how to for example feed the patient through a nasogastric tube despite the risks involved in this is described in Fournier et al. (2007). This was because the hospital often had a nurse patient ratio of 1 to 50 during the day and 1 to 100 in the evenings which made nurses focus more on the medical aspects of the care.

6.1.2 Inadequate knowledge and skills on HIV/AIDS

The desire to receive and frequently update their knowledge on HIV/AIDS was an issue that frequently came up in most of the articles. Nurses lacked the necessary skills and basic knowledge required to take care for the increasing population of HIV infected people (Smit,2005; Harrowing & Mill, 2009; Delobelleet al., 2009; Fournier et al., 2007). In a survey

carried out by Oyeyemi et al. (2006),93% of the nurses in the study were satisfied with the training they had received and considered they had sufficient knowledge to provide care to PLWHA but, only 62% gave right answers when asked general questions about HIV/AIDS.

Participants in Mavhandu-Mudzusi et al., (2007) offered voluntary counseling and educated the community about HIV/AIDS transmission, prevention, testing among others. These nurses constitute a very important force put in place to help fight the spread of the virus and provide support to infected people. The nurses expressed a desire for regular training and updated information. They lacked knowledge on how to break the news to patients who tested positive and information about changes in the field of HIV that should have been an essential part of their job was lacking (Mavhandu-Mudzusi et. al., 2007). The nurses in the study requested better education and increased information accessibility as concerns transmission routes, testing, and treatment.

Some nurses had the necessary skills and knowledge about HIV/AIDS but were not willing and ready to provide care for them as revealed by Smit (2005), Delobelle et al. (2009), and Mavhandu-Mudzusi et al. (2007). Many nurses had attended training sessions but refused to counsel and test patients (Mavhandu-Mudzusi et al., 2007).The result of this study shows that nurses always focus on the physical wellbeing of PLWHA but neglect an important aspect in their care: their mental wellbeing. This was voluntarily left out because most nurses thought they didn't have enough knowledge and skills to deal with such problems. Chorwe - Sangani et al. (2013) argues further that therapeutic commitment and readiness to provide quality mental care to PLWHA was directly proportional to the knowledge mastered in the subject are. Delobelle et al., (2009) points out that the level of knowledge of the nurses was associated with the nurse's professional rank, level of education, and his/her frequency of care for PLWHA.

6.1.3 Stigma and discrimination

Nurses working with PLWHA experienced stigma both from other healthcare professionals and from the society in general due to their association with PLWHA. This made some of the nurses reluctant to disclose the nature of their work or their association with PLWHA (Harber et al., 2011). As a measure to help fight stigma and discrimination, 73% of the nurses in Harber et al., (2011) did not hesitate to disclose their association with PLWHA. This is contrary to participants in Chirwa et al., (2009) where stigmatization reduced nurses' job satisfaction and made them want to quit their jobs or work elsewhere.

Patients were also stigmatized by both nurses and the society as a whole. Mavhandu-Mudzusi et al., (2007) describes how nurses in voluntary counseling and testing centers did not label their rooms and made counseling as short as possible so that others should not label the patient as HIV positive. The same article further points out that it was embarrassing to the patients when nurses used extra protective clothing when they knew the patient was HIV positive. This automatically made the other patients in the ward suspect the patient's status and isolate themselves from him or her.

Patients, their family members, and the community as a whole also had negative attitudes towards nurses who were always blamed for the outcome of the care received by patients. Patients spat on health care givers and attacked them physically both in and outside hospital premises and the nurses were seldom in a position to defend them nor did their leaders attempt to raise awareness among the population (Harrowing &Mill, 2010). Patients' negative attitudes coupled with local believe jeopardized caregivers' efforts in reducing the spread of the virus.

6.2 Arising emotions due to Barriers

Caring for PLWHA can be very emotionally demanding especially in resource poor settings like SSA. These emotions might be due to the workload, the working environment or the working conditions.

6.2.1 Feeling of frustration and stress

Majority of the nurses felt very helpless or powerless when caring for PLWHA because there is no cure for the disease and patients came to them when they were extremely sick (Smit, 2005; Delobelle et al., 2009). Smit (2005) goes ahead to explain that working with HIV/AIDS patients exhausted the caregivers both physically and emotionally because of the lack of basic equipment and overcrowded hospitals. It ended up having an impact in the private and family lives of the nurses. Nurses felt helpless when the treatment they gave the patients didn't improve their condition. Harrowing & Mill, (2009) reveals that most participants felt extremely frustrated and helpless mostly due to the obstacles they encountered at work. Despite that, they managed to overcome the problem because of the passion they had for nursing.

6.2.2 Fear of contagion

Nurses experienced no direct fear of contagion when working with PLWHA (Smit, 2005; Fournier et al., 2007; Delobelle et al., 2009) due to the specific HIV/AIDS training they had received. However, fear of contagion due to poor quality and shortage of protective equipment was a worry that constantly came up. Only 2.4 % of the participants in Oyeyemi et al., (2005) said they had ever refused to care for AIDS patients though majority 70.4 % were willing to provide care for them. Nurses who had been accidentally exposed to the virus at work described the emotional experiences of anxiety and fear they went through due to fear of contagion and the side effects of ARV therapy (Roets at Ziady, 2008).

Some nurses experienced a different kind of fear when working with PLWHA; they feared the pressure they got from their family members who were worried because of their involvement with the patients (Fournier et al., 2007).

6.3 Sources of motivation for healthcare workers

Caring for patients may be emotionally and physically draining, yet most nurses experienced self-fulfillment when the patient's health was restored. To make a patient feel comfortable entails supporting them emotionally and giving them quality care in a non-discriminatory and non-judgmental manner.

6.3.1 Personal experiences and miraculous recoveries

To most of the participants, nursing was a passion and part of their lives. They didn't choose the profession by mistake. They chose it because of their desire to impact on people's lives as mentioned in Harrowing & Mill (2009) and Harrowing et al. (2010). That was one of the driving factors that kept the going. Nurses drew strength from the physical and emotional recoveries made possible by ARV therapy and from their personal memories of the suffering caused by HIV/AIDS. Most of the nurses had lost close friends or family members to HIV and this personal experience helped increase their motivation in caring for the patients (Campbell et al., 2011). Similarly counseling and treatment improved patient's emotional state and quality of life as pointed out in (Mavhandu-Mudzusi et. al., 2007).

Nurses had a positive attitude when caring for PLWHA because they had personally experienced the devastating effects of HIV/AIDS. Empathy and compassion was a common emotion showed by nurses towards the suffering of HIV/AIDS patients and their family members (Smit, 2005; Delobelle et al, 2009; Campbell et al, 2011). The nurses treated them with respect just like they would do with any other patient.

However, Oyeyemi et al., (2006) points out that some nurses had a poor attitude towards PLWHA. Nurses in the study had a score of 104.6 out of a possible score of 175 which can be interpreted as they having poor attitudes towards the patients. The attitude score was dependent on the nurses' level of education, specialty, or if they had kids. Surgical nurses, male nurses, recently trained nurses, and nurses who did not have kids showed a statistically significant higher attitude (Oyeyemi et al., 2005). Similarly, Mavhandu-Mudzusi et al. (2007) revealed that some nurses refused to bathe, feed or adjust the peripheral venous catheter 8 PVC)of an HIV positive patient when it came out and if one decided to re insert it, they would exaggerate the wearing of protective clothing.

7. DISCUSSION

7.1 Method discussion

The purpose of the thesis was to focus on nurse's experience of caring for HIV/AIDS patients in SSA. In SSA, the term nurse is difficult to define. It can refer to individuals who have a bachelor degree in nursing, diploma in nursing (equivalent to assistant nurse in the developed world) or individuals who have specialized in other aspects of nursing not necessarily in a university. The searches revealed that other categories of healthcare providers were always included in the studies. It is thus difficult to draw a conclusion that the results would be same if nurses alone were participants in the studies. This can be a weak link in the thesis since the purpose is to study only nurses' experiences.

This study is based on SSA which harbors the poorest countries in the world and has the highest incidence of HIV/AIDS. The study might not be relevant to medical personnel in other parts of the world where other conditions and challenges might prevail. If a similar study were to be done in a developed country the result would not be the same. The aim of this work was not to compare different countries with each other but rather to get an overall

result that represents a large region like SSA. It would have been difficult to limit the thesis to one African country because the effect of the disease varies from one country to another depending on the culture and socio-economic background of the inhabitants in the country. It would not have been appropriate to use whole continent of Africa because the northern part of Africa has a very low HIV/AIDS incidence.

Initially, the authors had in mind to search for articles published between the year 2000 and 2015 but after going through the selected articles, it was discovered that all of them were not older than ten years. So the date was changed to 2005-2015.

A strength of this literature review is that it is based on qualitative, quantitative and a mixed method research articles. When the qualitative goes into more depth and provides a detailed description of health professionals nursing work and the factors influencing them, the quantitative provides a more generalized picture of this and were used to demonstrate the qualitative findings in the result. Papers whose participants had working experience in caring for HIV/AIDS patients and whose authors were researchers in the nursing field were selected to increase the quality of the research. Participants in the selected papers were as much as possible of both sexes though more female professionals of different ages participated in the studies. This is because nursing is a female dominated profession.In some cases, it was difficult to critically review some papers because most parts were well written while few parts were missing. Such papers' quality was classed as medium.

Another strength of the study is that it is written by two authors who continuously reflected and discussed their findings. The authors avoided falsification and plagiarism from the onset of the research to the end. The authors avoided manipulating research results to fit into a predefined hypothesis by being 'open minded' right from the beginning.

7.2 Results Discussion

The experiences of nurses in Sub-Saharan Africa who care for PLWHA showed that nurses faced challenges like lack of human and material resources, negative attitudes mostly from the public and lack of HIV/AIDS knowledge. These challenges led to different emotions like fear of contagion and a feeling of frustration and hopelessness. Nevertheless, nurses had compassion for patients and treated them with respect and drew courage from miraculous recoveries made by patients after the introduction of ARV.

The issue of inadequate supply of materials and equipment in hospitals in SSA had been reported earlier by many researchers (Mbanya et al., 2001; Ehlers, 2006). The results of the present study showed that nurses shared similar concerns on the lack of human and material resources that were required to give good care to the patients (Smit, 2005). The heavy workload and the lack of supplies made nurses to be unable to enhance optimal health and quality of care for PLWHA, their family members, and those at risk of being infected by HIV/AIDS. The results indicate that the person who bears the consequences is the patient who doesn't get the physical, material and mental support he needs from the care givers. Nurses taking care of PLWHA have a duty to abide to the International Council of Nurses' ethical code (ICN, 2005) when giving care and this in turn can help in the fight against HIV/AIDS in

SSA. A nurse patient ratio of 1 to 50 during the day and 1 to 100 in the evenings which made nurses focus more on the medical aspect of the care as described in Fournier et al., (2007), which in turn makes it difficult to use the nurses' competencies to alleviate the mental suffering of the patients.

Heavy workload due to lack of human and material resources resulted in emotional stress to see people die. People came to the hospital sick, and left very sick (Smit, 2005). Helplessness was a feeling that was described in many articles (Smit, 2005; Delobelle et al., 2009). Most of the nurses were psychologically troubled and depressed (Harrowing & Mill, 2009). Having someone to discuss such feelings with is essential, because such negative feelings can affect the nurses' performance negatively (Johnson, 1995.)

Person-centered communication could be a way of making patients feel safe, accept their diagnosis, trust the nurses and open up to them. This is in turn could open doors for better collaboration and cooperation between caregivers and PLWHA resulting in the alleviation of the person's suffering. Allocating time and resources to educate the patients on different aspects of the disease, such as the importance of compliance to medication, the importance of practicing safe sex and other issues can help prevent the spread of the virus(Dahlberg, 2002).Increased workload coupled with limited resources leads to moral stress and omissions in many aspects of the patient's care (Harrowing & Mill, 2010).

Surprisingly, the results did not indicate that the nurses would be reluctant to treat patients because of shortage of resources; instead the results showed that nurses in did not give up. The nurses came up with coping strategies and improvised (Fournier et al., 2007), and were thereby able to promote health and relieve suffering (ICN, 2005).

The results showed that HIV/AIDS knowledge was moderately adequate, though some nurses had misconceptions on HIV transmission, HIV risk prevention, how to tell a patient they tested positive and on the disease as a whole. Tierney (1995) pointed out that there is a relationship between HIV knowledge, training and education on the ability of caregivers to provide quality care. Knowledge is one of the essences of the building blocks of the nursing profession. Research in the area has shown that without proper and adequate knowledge nurses cannot feel confident in educating patients about their illness (Ehlers, 2006). Nurses have to be trained so that they in turn can empower their patients, educate them on practicing safe sex so as not to get re-infected or infect others. This is very important in a setting like SSA where illiteracy rates are quite high (Ehlers, 2006) and most people don't have access to information through books or the internet. Knowledge is needed to educate people on turning their back from practices, traditions and believes like the denial of the existence of HIV that was mentioned in (Harrowing,2011). Such believes added to the frustration of nurses who saw their efforts in reducing the spread of the virus go in vain.

Training was found to have a positive effect on the nurse's attitudes (Smit, 2005; Delobelle et al., 2009). It increased their job satisfaction and enhanced personal and professional relationships. Training can improve patient-nurse interpersonal relationship. The effect of this is confirmed in Harrowing (2009) where the nurses were trained at listening with empathy, identify and find solutions to the patient's problem. The nurses had the courage to take up sensitive topics like patient's sex life, listened to the patients, encouraged and gave them

support. This made patients feel safe, increased their confidence in the care giver who hence could build a good relationship with them. The authors believe that a good patient-caregiver relationship that is characterized by openness, respect for each other and exchange of information is essential when giving care. If the relationship is not good, the patient might not open up to the caregiver and this could result in many misses which can affect the patient in a negative way, i.e. healthcare suffering (Dahlberg, 2002).

Sex education was part of the training participants in Harrowing (2009) benefited from. After the training,they were able to communicate with adolescents about sexual health. This is very essential because sex education has always been a taboo subject in most countries in SSA because of cultural and social inhibitors as pointed out in (Oshi et al., 2004). In line with this, nurses may feel uncomfortable talking about sex with people they don't know. They might think it is the responsibility of the media and the government to educate youths on sex (Oshi et al., 2004. If the nurses were trained in sex education and the different approaches they can use to handle the subject, it would be easier for them to educate the population and PLWHA on safe sex as confirmed in Harrowing (2011). UN report in SSA shows that majority of those infected in SSA are young people (UN, 2014) and one can immediately conclude that majority of the virus is spread through sexual contact.

According to Robinson, (1998) some health professionals refuse to care for PLWHA and this is a big barrier in the health sector. Results show that this reluctance was greatest among, women, unmarried nurses, nurses who were not recently trained, and those who did not know anyone with HIV/AIDS (Oyeyemi et al., 2005). One reason for the reluctance to care for patients with HIV/AIDS might be the fear of contagion or lack of knowledge on HIV transmission (Oyeyemi et al., 2005). According to Delobelle et al. (2009) and Smit (2005) fear of contagion was no concern to the nurses because they had learnt about universal precautions during the HIV training they had prior to the study. This made them feel safe when working with the HIV positive patients, considered and treated them like any other patient. These made nurses sometimes forget about universal precautions and treated all patients the same way (Smit, 2005).

Whereas many past studies have attributed fear of contagion among nurses working with PLWHA to insufficient knowledge and negative attitude, this study reveals that fear of contagion was primarily due to lack of supplies and equipment. Protective equipment, necessary to protect the nurses, was often not available, even when they were available; they were of poor quality (Ehlers, 2006). However, some nurses expressed fear because many of their colleagues had contracted the disease while on duty. Some were afraid of the side effects of prophylactic ARV therapy in case of accidental exposure to the virus while others were afraid of the reaction of their family members if they happened to know they were providing care to PLWHA. Most of them told lies about their association with PLWHA (Harber et al, 2011).

The results showed that most nurses had a positive attitude towards PLWHA (Delobelle et al., 2009; Smit, 2005. They showed compassion for them, treated them with respect and didn't blame them for being sick. This is contrary to past research where nurses had a negative attitude towards PLWHA due to lack of knowledge Mbanya et al., (2001). However, some nurses had negative attitudes towards patients (Mavhandu- Mudzusi et al., 2007). All patients

have right to good care and should be treated positively irrespective of their background. To provide good care requires a holistic approach which sees the patient from a multidimensional view of humanity. When giving care to PLWHA, the person should be considered in his entity. The nurse should listen actively to the patient, show him/her they really care, accept the patient and confirm what they are saying in order to be able to get their trust (Carr, 2011, Dahlberg, 2002).

Results showed that it was not only nurses that had negative attitude towards patients, patients and their family members were always rude to the caregivers, blaming them for not doing enough for the patient. Yet this did not discourage the nurses from doing their job because of the passion they had for nursing (Campbell et al., 2011).

Empathy, sympathy, mutual understanding and contact are important in creating a good patient-nurse relationship (Snellman, 2010) Reciprocity, exchange of information and good communication is very important in relationships with patients and it is important to include relatives as well. To have a good interpersonal relationship, it is important for both parties to first of all respect each other. According to Swedish nurses' competence description, patient nurse communication should be done with respect, sensitivity and empathy (Swedish council for nurses, 2007). Nurses supported patients and created valuable relationships with them and their families (Harrowing, 2011). Interaction is of great importance in creating interpersonal relationships where both parties get past their roles and see each other as unique individuals (Travelbee, 2007). Relationships with patients with HIV/AIDS were also positive for the nurses when patients got better and appreciated the help they got from the nurses (Campbell et al., 2011).

The results also showed that the nurses' private relationships were negatively affected because their relatives were concerned that they would be infected because of their association with PLWHA (Smit, 2005; Delobelle et al., 2009). Some choose not to tell family members the nature of their work. Discretion is an important aspect that should not be left out in the care for PLWHA, which is also promoted in the laws that governs the Swedish health care system (SFS 1982:763). Care should be conducted in collaboration with the patient and the patients should have autonomy and decide who should have knowledge of their disease. In hand with this, Mavhandu-Mudzusi et al., (2007) made counseling sections as brief as possible to respect and maintain discretion of the patients and not label counseling rooms. This, however, was not the case when the nurses over exaggerated the use of protective equipment (Mavhandu-Mudzusi et al., (2007). This made other people in the ward guess they were positive.

The International Council of Nurses (2005) states that nurses can make major contributions in shaping health policies worldwide and encourages them to actively participate in policy making. Despite the numerous challenges faced by nurses in SSA in the fight against HIV/AIDS, there is need for them to render greater inputs into policy formulation policies processes to improve the future for their patients and for themselves and for future generations of nurses in Africa (Ritcher et al., 2012). Nurses are the link between various governance systems and clinical settings where they work and they are a vital link to ensure effective HIV and AIDS care. It is of great importance that they get involved in the allocation and implementation. The majority of healthcare givers in SSA are nurses thus their

involvement in the allocation and implementation of resources is very vital in the success or failure of HIV/AIDS policies (Ritcher et al., 2012).

7.2.1. Implications for nursing and nursing policy

Governments and policy makers need to acknowledge efforts made by nurses in the management of the HIV epidemic. Policies need to be drawn to improve the working conditions of nurses, make the nursing profession lucrative and improve their working conditions so that nurses would not become emotionally and financially worn-out or so that they should not suffer from moral distress. Nurses and other caregivers are needed in if interventions in the fight against HIV/AIDS in SSA.

On the other hand, the entire community has a role to play for the eradication of HIV/AIDS in SSA to be a success story. For this to happen, the community has to change their mentality and believe that HIV is real.

7.2.2.Future research

This literature review showed some of the nurses' experiences of caring for patients with HIV/AIDS, concerned their differing attitudes to the patients. However, there is need for future research about how patients are affected by nurses' experiences and attitudes.

8. CONCLUSION AND WAY FORWARD

This literature review shows that nurses need to have the right competenciesand have adequate human and material resources to be able to give quality care to PLWHA. Adequate HIV/AIDS training is necessary to reduce fear due to contagion and change attitudes of the nurses. It is necessary to accelerate HIV/AIDS training to all nurses in SSA to meet up with the tremendous impact of the disease and increasing numbers of patients requiring therapy. The nurses in turn need moral, financial, material, physical and emotional support from their employers, family and their communities to be able to keep up with the fight despite the numerous challenges faced, prevent spreading of the disease, promote health, and relieve patients' and families' suffering.

Although the findings of this study cannot be generalized, key elements in the care of patients with HIV/AIDS emerged and most healthcare professional regardless of their geographical position in SSA would relate to them. A major drawback of the literature review's results is the lack of nurses' involvement in policy making and research. The authors believe that that is one of the ways nurses can make their voices heard and create an impact on their profession.

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Appendix

Appendix 1: **Critical quality review of Qualitative and Quantitative.**

Qualitative criteria

- *Is the design appropriate?Does it 'fit' the research question?*
- *Have researchers documented their preconceptions?*
- *Is the sample and setting described sufficiently?*
- *Were sampling strategies suitable to identify participants and sources to inform research questions?*
- *Did researcher engage with participants and become familiar with study context?*
- *Weremultiplemethodsemployed?*
- *Was data collection capable of generating rich data?*
- *To what extend did analysis inform subsequent data gathering?*
- *Are the findingscredible?*
- *Was a member-check performed?*
- *Were data analyzed by more than one independent source?*
- *Is a range of verbatim quotes provided?*
- *Would interpretation of data be recognizable to those having experience in the situations described?*
- *Has the research contributed to knowledge or theoretical advancement?*
- *Can the findings be transferred to other patients or groups?*
- *Were accurate records or an audit trail retained by the researchers?*
-

Each 'yes' answer corresponds to two points.
Total: 32 points; High:24-32; Medium: 15-31; Low:0-14

QuantitativeCriteria

- *Have the researchers used a theoretical or conceptual framework? If yes is it adequately explained?*
- *Are adequate descriptions of individuals provided?*
- *Is there a control group?*
- *Are instruments sufficiently described and is there a rationale for using each tool?*
- *Are they reliable and valid?*
- *Was the description of any interventions in sufficient detail to be repeatable?*
- *Is data analysis described and appropriate?*
- *Are statistical tests for analyzing results stated and are they appropriate?*
- *Are tables or graphs adequately labeled, explained and effective?*
- *Are all respondents accounted for?*
- *What claims are made for generalizability of findings?*

Did the study give support for the theoretical framework (if one was used

Each 'yes' answer corresponds to two points.
Total 22 points 18-22; High:18-22; Medium: 13-17; Low:0-12

Appendix 2: Search process in Cinahl and Pubmed

Databa Se	Date	Keyword	Limitations	Identified papers	Discarded papers	Selected papers	Author Year
Cinahl	210315	HIV* OR AIDS AND nurs* AND Africa	Full text, abstracts, human, English.	31	*15 **7 ***	2	Roets L, Ziady LE (2008). Daniel & al (2011)
Cinahl	270315	HIV*OR AIDS AND nurs* AND Africa AND challenges	Full text, abstracts, human, English	10	*3 **2 ***	2	Harrowing, Jean N. (2011). Campbell & al (2010)
Cinahl	210315	HIV*OR AIDS AND nurs* AND Africa AND stress	Full text,abstracts,human, English	10	* 5 ** 2 ***	1	Delobelle&al (2009).
Cinahl	210415	HIV* OR AIDS AND nurs* AND Africa AND Experience	Full text, abstracts, human, English	6	*2 **2 ***	1	Smit R, (2005)
Pubmed	210315	HIV /AIDS AND Nursing AND Africa AND Education	Full text, abstracts, human, English	34	*21 **10 ***	3	Chorwe-Sungani G & al (2013), Fournier& al. (2007). Ritcher& al (2013).
Pubmed	280315	HIV /AIDS AND Nursing AND Africa AND Knowledge	Full text, abstracts, human, English	9	*2 **4 ***	1	Harrowing, Jean N. (2010).
Pubmed	280315	HIV /AIDS AND Nursing AND Africa AND Attitudes	Full text,abstracts,human, English	15	*10 **3 ***	1	Oyeyemi& al (2006)
Pubmed	210415	HIV/AIDS AND nurses AND Africa AND Experience	Full text,abstracts,human, English	20	*11 **9 ***	1	Mavhandu-Mudzusi. & al (2007)

*(no of papers discarded after reading the topic), ** (number discarded after reading through the abstract) , *** (glanced through abstract, few paragraphs in introduction and results).

Appendix 3: Summary of search results

Author (year) Country	Title	Aim	Design and Data Collection Method	Participants and Setting	Result	Quality
Campbelll et al (2010) Zimbabwe	Sources of motivation and frustration among healthcare workers administering antiretroviral treatment for HIV in rural Zimbabwe	To examine nurse's motivation and frustration so far as providing ART to PLWHA is concerned.	-Qualitative paper. -Audio taped interviews.	n=25 nurses	Improved health condition of the patients after they are put on ARV gives the nurses the hope they need to move on despite experienced exhaustion due to lack of resources.	High
Chirwa et al .(2008) Malawi, South Africa, Tanzania, Lesotho, Swaziland	HIV Stigma and Nurse Job satisfaction in Five African Countries	To explore demographic and social factors including HIV stigma that influence job satisfaction in nurses in Malawi, Lesotho, South Africa, Swaziland and Tanzania.	-Quantitative study with descriptive statistics. -Survey and questionnaire	n= 1,384 nurses	Job satisfaction differed significantly among the five countries and was based on factors such as marital status, education level, urban/ rural setting,perceived HIV stigma and mental and physical health	Low: statistical tests for analyzing results not stated, reliability of instruments not stated and the article contains no figures nor tables.
Chorwe-Sungani et al (2013) Malawi	Therapeutic commitment for general nurses in dealing with mental health problems (MHP)of PLWHA in Blantyre, Malawi	To explore general nurses therapeutic commitment in dealing with the MHP of PLWHA.	-Quantitative paper --Questionnaire	n= 136 general nurses	Nurses' levels of knowledge and skills is proportional to their commitment in providing quality care to the affected patients	High
Delobelle et al. (2009) South Africa	HIV/AIDS knowledge, attitudes, practices and perceptions of rural nurses in South Africa	To study HIV/AIDS related knowledge, practices, attitudes, perceptions of nurses in rural Limpopo province of South Africa which is mostly inhabited by blacks.	-Mixed cross sectional study. -Questionnaire, focus groups and in-depth interviews	n= 71(public health care nurses among which n= 69 hospital nurses	Hospital nurses reported a higher frequency of care of PLWHA but less training as compared to primary health care nurses.	High

Fournier et al. (2007) Uganda	Nursing care of AIDS patients in Uganda	To explore the experiences of nurses caring for HIV/AIDS patients in Kampala Uganda and identify challenges and opportunities in their practice	-Qualitative, prospective study with content analysis -focus groups and semi structured interview	n=12: 6 nurses and 6 key informants from HIV organizations.	Nurses face many challenges when caring for HIV patients and the most common of them is moral distress (fear of being infected, lack of material and human resources, stigmatizationetc). As a result of this, many of them quit their jobs	Medium: The number of participants is very minimal for a country with high HIV/AIDS incidence
Haber et al. (2011) South Africa	Stigma by Association: The effects of caring for HIV/AIDS patients in South Africa	To examine stigmatization of HIV/AIDS healthcare workers based on their association with people living HIV/AIDS	-Mixed method. -Questionnaire and 12 focus group meetings.	n=100 (nurses, health worker, doctors , counselors and assistant nurses) Min 2 yearsworking experience	HIV/AIDS healthcare workers contemplated leaving their jobs because of stigma, status loss and discrimination	High
Harrowing et al (2011) Uganda	Compassion Practiced by Ugandan Nurses who Provide HIV Care	The study describes nursing in Africa and explores the impact of education on nurse's life in Uganda.	-Qualitative critical methodology study. -Interviews and observation.	n= 14 nurses	Many barriers were described that affected prevented the nurses from providing competent care. However the new skill and knowledge they got was appreciated and it had a liberating effect.	High
Harrowing J.N., Mill, J. (2009) Uganda	Moral distress among Ugandan nurses providing HIV care: A critical ethnography	To describe the manifestation and impact of moral distress as experienced by Ugandan nurses who provide care to PLWHA	-Qualitative critical focus ethnographic study. -Interviews, observation and focus group discussions.	n = 24 emergency care nurses and general nurses	Nurses experience moral distress due to lack of appropriate resources. They were determined to serve patients to the best of their ability but need the appropriate skill and knowledge to be able to be well equipped.	High

Mavhandu-Mudzusi. et al., (2007) South Africa	Nurse's experiences of delivering voluntary counseling and testing services for PLWHA in the Vhembe District, Limpopo Province, South Africa	The study explores and describes the experiences of 20 nurses who render voluntary counseling in the Vhembe District, Limpopo province, South Africa.	-Qualitative and contextual research -In-depth individual interviews	n =20 nurses	Nurses experienced a lot of challenges due to lack of resources, they were emotionally drained due to stress. The nurses were overworked and frustrated because of the negative attitudes of patients and the community in general.	Medium: The design method is not motivated and given the high incidence of HIV/AIDS in the country; the number of participants is few.
Oyeyemi et al., (2006) Nigeria	Caring for patients living with AIDS: knowledge, attitude and global level of comfort.	To determine Nigerian nurses' knowledge, attitudes and overall level of comfort in caring for HIV/AIDS patients and identify sociodemographic variables that may influence their attitude and comfort while taking care of such patients.	-Quantitative article -Questionnaire	N= 277 nurses in four hospitals	Participants demonstrated low level of knowledge and poor attitudes towards HIV patients. The attitudes were influenced by different factors like the nurses rank, level of education and working experience.	Medium: statistical tests for analyzing results not defined
Roets, L., Ziady, L. (2008) South Africa	The nurses' experience of possible HIV infection after injury and /or exposure on duty.	The paper presents findings related to nurses' engagement in AIDS policy development in Canada, Jamaica, Uganda, Barbados, South-Africa and Kenya.	-Qualitative phenomenological descriptive study. -Two in- depth interviews with each participant	n=all members of the nursing staff who has been exposed to HIV of the hospital who had been exposed to possible HIV on duty.	The author came up with two categories: emotional experience they went through due to exposure and the physical experience due to the side effects of the prophylactic ARV they got.	High
Smit,R. (2006) South Africa	HIV/AIDS and the workplace: perceptions of nurses in a public hospital in South Africa	To explore nurses experiences of nursing HIV /AIDS patients and how these may influence their attitudes towards these patients.	-Qualitative approach with thematic analysis. -In-depth semi-structured interviews as data collection method.	n= 35 nurses	Helplessness, emotional stress and fatigue, fear, anger and frustration, occupational related concerns, empathy and self-fulfillment are some of the challenges the participants encountered.	High